

Declining rural poverty has been a key factor in aggregate poverty reduction

Poverty rates in rural areas have declined over the past decade, mostly because of the impressive gains in China. But 75 percent of the world's poor still live in rural areas, and rural poverty rates remain stubbornly high in South Asia and Sub-Saharan Africa. Rural poverty reduction contributed more than 45 percent to overall poverty reduction in 1993–2002, with only a small share of that resulting from rural-urban migration. Rural-urban income gaps have narrowed in most regions except Asia, where the widening gap is a source of political tensions and a motive for new efforts to stimulate agricultural and rural development.

Poverty is concentrated in rural areas: With an international poverty line of \$1.08 a day, 75 percent of the developing world's poor live in rural areas whereas only 58 percent of its population is rural.

Poverty rates in rural areas have declined in the past 10 years, but remain extremely high (figure A.1). They declined from 37 percent in 1993 to 30 percent in 2002 for the developing world as a whole, using a \$1.08-a-day poverty line (box A.1). Outside China, though, the results are less impressive, with a decline from 35 percent to 32 percent. The number of poor people in rural areas fell only slightly, from 1 billion to 0.9 billion. With a higher poverty line (\$2.15 a day), the poverty rates declined from 78 percent to 70 percent, and the number of poor people slightly declined from 2.2 billion to 2.1 billion.

These global trends hide large variations in the evolution of poverty across regions and countries. Rural poverty rates remain frustratingly high and tenacious in South Asia (40 percent in 2002) and Sub-Saharan Africa (51 percent), and the absolute number of poor in these regions has increased since 1993.

Many countries that had fairly high agricultural growth rates saw substantial reductions in rural poverty: Vietnam, with land reform and trade and price liberalization; Moldova, with land distribution; Bangladesh, with rising farm and rural nonfarm earnings and lower rice prices resulting from new technologies; and Uganda, with economic reforms and a resulting boom in coffee production. Agriculture was also the key to China's massive and unprecedented reduction in rural poverty and to India's slower but still substantial long-term decline (boxes A.2 and A.3). Ghana is Sub-Saharan Africa's breaking story of poverty reduction over 15 years, with a decline in rural poverty as the largest contributor (box A.4).

But in some countries rural poverty did not decline, despite agricultural growth: for example, Bolivia and Brazil's agricultural growth concentrated in a dynamic export-oriented sector of very large farms. And in

other countries the declines in rural poverty were unrelated to agriculture, such as in El Salvador and Nepal, where rural poverty fell largely because of rising nonfarm incomes and remittances.¹

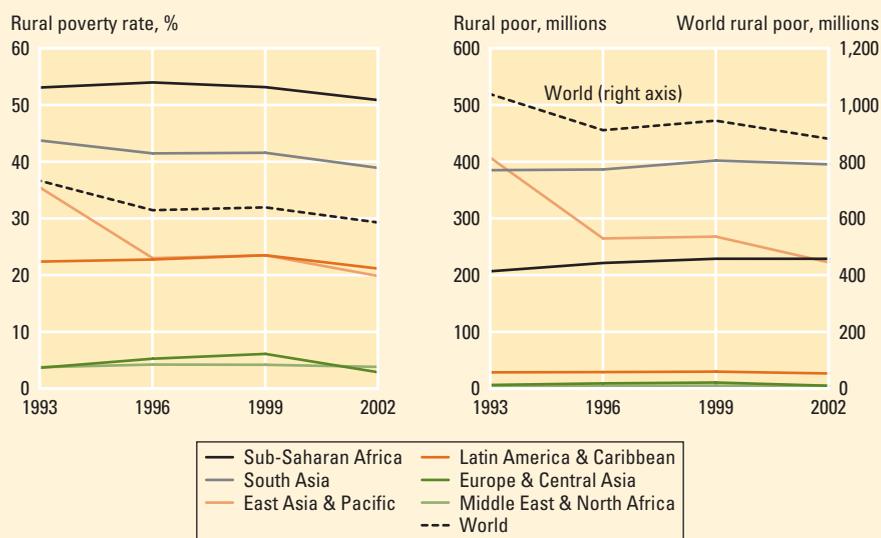
The urban population share for the developing world is expected to reach 60 percent by 2030.² At that rate, the urban share of \$1.08-a-day poverty—now 25 percent—will reach 39 percent by 2030.³ These projections are approximations because the pace of urbanization will depend on the extent and pattern of future economic

growth. But from what is now known, it appears very likely that the majority of the world's poor will still be in rural areas for several decades.

The rural-urban income divide is large and rising in most transforming economies

In almost all parts of the world, rural poverty rates are higher than urban ones, and the depth of poverty is usually greater. In 2002, the poverty rate for rural areas in

Figure A.1 Rural poverty rates and number of rural poor (\$1.08-a-day poverty line)



Source: Ravallion, Chen, and Sangraula 2007.

BOX A.1 A reestimation of international poverty levels

World rural and urban poverty statistics for the period 1993 to 2002 have been consistently estimated for the first time by a World Bank team (Ravallion, Chen, and Sangraula 2007). The methodology includes an adjustment of the poverty lines of \$1.08 and \$2.15 a day, in 1993 purchasing power parity (PPP), for the higher cost of living in urban areas. With this adjustment, the new estimates for aggregate poverty in the

world are unsurprisingly higher than previous estimates, by about 10 percent. With the \$1.08 poverty line, aggregate poverty in 2002 is now estimated at 1,183 million, compared with the 1,067 million previously reported. The recent decline in aggregate poverty, published in other World Bank documents, is not reflected in this *Report* because the rural-urban disaggregation is not available beyond 2002.

BOX A.2 *China's unprecedented reduction in rural poverty*

China's poverty reduction in the past 25 years is unprecedented. Estimates by Ravallion and Chen (2007) indicate that poverty fell from 53 percent in 1981 to 8 percent in 2001, pulling about 500 million people out of poverty. Rural poverty fell from 76 percent in 1980 to 12 percent in 2001, accounting for three-quarters of the total. The evolution of poverty has been very uneven over time, however. The sharpest reduction was in the early 1980s, with some reversal in the late 1980s and early 1990s.

The role of institutional change in poverty reduction

The sharp decline in poverty from 1981 to 1985 was spurred by agricultural reforms that started in 1978. The household responsibility system, which assigned strong user rights for individual plots of land to rural households, the increase in government procurement prices, and a partial price liberalization all had strong positive effects on incentives for individual farmers. In the initial years of the reforms agricultural production and productivity increased dramatically, in part through farmers' adoption of high-yielding hybrid rice

varieties (Lin 1992). Rural incomes rose by 15 percent a year between 1978 and 1984 (Von Braun, Gulati, and Fan 2005), and the bulk of national poverty reduction between 1981 and 1985 can be attributed to this set of agrarian reforms.

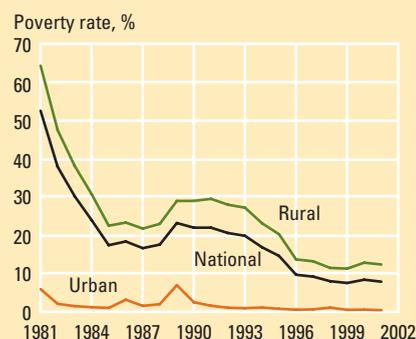
The role of agricultural growth in poverty reduction remained important in subsequent years, as the reforms created the rural nonfarm sector, which provided employment and income to millions of people whose work was no longer needed on farms. The share of the rural nonfarm sector in GDP went from close to zero in 1952 to more than one-third in 2004 (Von Braun, Gulati, and Fan 2005). Considering the entire period, Ravallion and Chen (2007) concluded that growth in agriculture did more to reduce poverty than did either industry or services.

Rising inequalities

Higher incomes for large parts of the population came at the cost of higher inequality. Unlike most developing countries, China has higher relative income inequality in rural areas than in urban areas (Ravallion and Chen 2007). There are also large regional and sectoral

imbalances. Restrictions on internal labor migration, industrial policies that favored China's coastal areas over the poorer inland regions, and service delivery biases that allowed the Chinese rural education and health systems to deteriorate are all examples of policies that contributed to disparities in regional and sectoral economic performances.

Urban and rural poverty in China



Source: Ravallion and Chen 2007.

BOX A.3 *Reducing rural poverty in India*

The role of technological change in poverty reduction

In the 1960s and 1970s the introduction of semidwarf varieties of wheat and rice—in the green revolution—led to dramatic leaps in agricultural production and raised farmers' incomes, especially in northwest India. Rural poverty fell from 64 percent in 1967 to 50 percent in 1977 and to 34 percent in 1986. A large share of the gains came from an increase in real wages and a decline in grain prices. Growth in the agricultural sector reduced poverty in both urban and rural areas. This was true also of growth in services. But industrial growth did not reduce poverty. Land reform, rural credit, and education policies also played a role in the 1970s and 1980s, even if these programs might have cost some economic growth.

Beginning in 1991 India instituted sweeping macroeconomic and trade reforms that spurred impressive growth in manufacturing and especially in services. Poverty data for 2004, comparable to the 1993 figures, show a continuing decline in poverty rates.

Diverging patterns and a mixed picture of rural welfare

Although there is a consistent poverty-reducing pattern across almost all Indian states, growth has been uneven. From 1980 to 2004 initially poorer states grew more slowly, resulting in income divergence in both absolute and

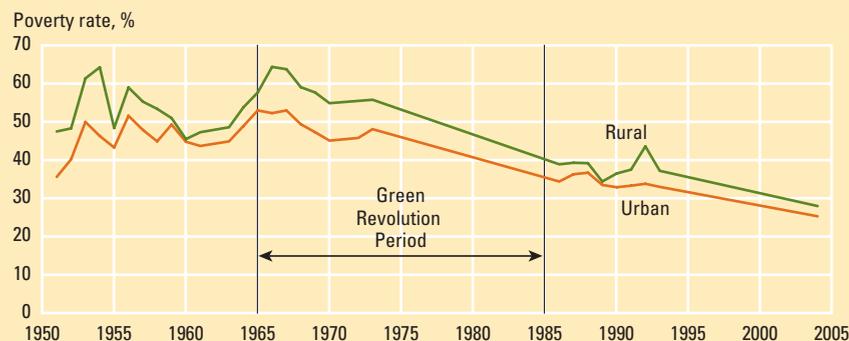
relative terms. The rapid trade liberalization of the 1990s had sharply differentiated regional impacts. Rural districts with a higher concentration of industries hurt by liberalization had slower progress in reducing the incidence and depth of poverty because of the extremely limited mobility of labor across regions and industries.

Urban incomes and expenditures also increased faster than did rural incomes, resulting in a steady increase in the ratio of urban-to-rural mean real consumption from just below 1.4 in 1983 to about 1.7 in 2000. Even then, India had fairly low income

inequality. But despite impressive growth and poverty reduction in the 1990s, the picture of overall welfare gains is nuanced, because health outcomes have not improved. India's recent reforms, unlike China's, were not directed at agriculture. Today, there is a renewed policy focus on agriculture in India, because many believe that the full poverty reduction potential of agriculture in India has yet to be unleashed.

Sources: World Bank 2000b; Burgess and Pande 2005; Chaudhuri and Ravallion 2006; Von Braun, Gulati, and Fan 2005; Topalova 2005; Ravallion and Datt 1996; Datt and Ravallion 1998a.

Urban and rural poverty in India



Source: World Bank 2000b; 2007 National Sample Survey (NSS), Government of India.
Note: Poverty rates based on NSS data and the official poverty line.

BOX A.4 Ghana: African success in poverty reduction

Ghana's growth and poverty reduction over the past 15 years is Africa's new and important success story. Real GDP has grown at more than 4 percent a year since 1980 and at more than 5 percent since 2001. The poverty rate fell from 51.7 percent in 1991–92, to 39.5 in 1998–99, and 28.5 in 2005–06. Poverty fell by about 17 points in the urban areas, and by 24 in rural. If all rural-urban migrants are assumed to be poor, an estimated 59 percent of the total poverty reduction was due to declining rural poverty. But there has been an increase in inequality (the Gini coefficient rose from 0.35 to 0.39 over the 15 years), particularly at the regional level, with Accra and the forest areas experiencing more poverty reduction than has the rural savannah in the north.

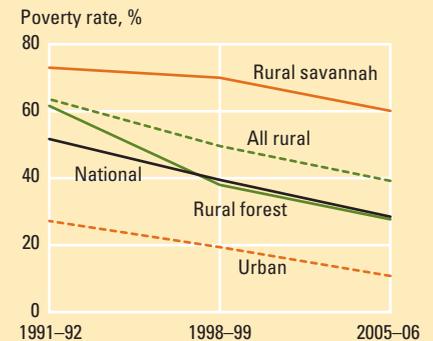
Ghana's accelerated growth is a result of better economic policy and a better investment climate as well as high commodity prices. In 2001–05 agriculture outperformed the service sector, growing at 5.7 percent a year, faster than overall GDP at 5.2 percent.

Agricultural growth has been mainly due to area expansion, with yields increasing

modestly at 1 percent. Since 2001 a significant part of productivity gains has been in cocoa. Cocoa production, although accounting for only 10 percent of total crop and livestock production values, contributed about 30 percent of agricultural growth. Ghana has also enjoyed strong growth in horticulture (almost 9 percent of total exports in 2006) driven mostly by pineapples. Both cocoa and pineapples are smallholder-based, and the poverty reduction associated with recent growth appears particularly strong among cash-crop growers. Even so, the resource and export base of the economy remains narrow, and the economy highly vulnerable to external shocks.

Ghana is one of the few Sub-Saharan Africa countries to register a sustained positive growth in per capita food production and declining food prices since 1990. But there is evidence of environmental degradation and unsustainable natural resource use. Food crop and livestock production needs to intensify to sustain current rates of agricultural growth and to benefit more of the population. Rising

Urban and rural poverty in Ghana



Source: Coulombe and Wodon 2007.

total factor and labor productivity and growing fertilizer use over the past 10 years are positive indicators of such a process.

Sources: Bogetic and others 2007; Coulombe and Wodon 2007; Jackson and Acharya 2007.

developing countries (30 percent) was more than twice that for urban areas (13 percent), using the \$1.08-a-day poverty line.⁴ Though the gap has been closing in many parts of the world, it has opened dramatically in East Asia and remained stable in South Asia.

Differences in income between rural and urban areas illustrate the rural-urban disparity problem. In a sample of almost 70 countries, the median urban income (consumption) is at least 80 percent higher than rural

income in half the countries. Differences have been increasing in many countries. This increase is most notable in rapidly transforming Asia (figure A.2). In India, rural and urban incomes were fairly similar in 1951, but the gap has since widened substantially (box A.3). In China, the gap between rural and urban incomes narrowed in the early reform years, when rapid agricultural growth drove overall economic growth, but it has since opened again (box A.2).⁵

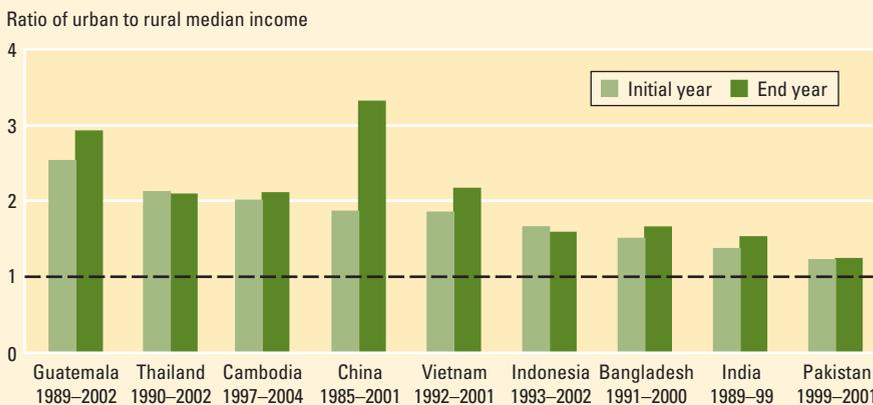
Why the poverty decline in rural areas—rural development or migration?

Higher urban incomes have pulled rural-urban migration flows. But to what extent are observed reductions in rural poverty caused by migration or by a genuine decline in poverty among the nonmigrants who stay in rural areas? The answer depends on the pattern of migration.

If migration is poverty-neutral—that is, the poor and nonpoor migrate at the same rate—the genuine decline in poverty of rural residents is equal to the observed decline in the rural poverty rate. But if the nonpoor are more likely to migrate—as documented for many countries—the reduction in poverty among nonmigrants is higher than the observed decline in poverty. If all migrants are assumed to be poor, that sets a lower bound for the genuine reduction of poverty in rural areas.⁶

If all those who migrate are poor, 81 percent of the reduction in rural poverty (6.9 percentage points of an 8.5 percentage point reduction) is still due to reduction of poverty among rural residents, not to migration (table A.1). Indeed, almost all the decline in South Asia and East Asia is because of a genuine decline in poverty in rural areas. Even

Figure A.2 The urban-rural income disparity has increased in most of the transforming countries



Source: WDR 2008 team, from nationally representative household surveys.

Table A.1 Even assuming that all migrants are poor, most poverty reduction in rural areas is due to declining poverty among rural residents

Region	Rural poverty rate (\$2.15-a-day poverty line)		Change in rural poverty rate for nonmigrants	
	1993	2002	Poverty-neutral migration	All migrants poor
Sub-Saharan Africa	85.2	82.5	-2.8	-1.5
South Asia	87.6	86.8	-0.8	-0.4
India	91.5	88.6	-2.9	-2.7
East Asia Pacific	85.1	63.2	-21.9	-20.0
China	88.6	65.1	-23.6	-22.1
Middle East and North Africa	35.8	37.6	1.9	6.1
Europe and Central Asia	19.8	18.7	-1.1	-0.3
Latin America and Caribbean	47.3	46.4	-0.9	7.8
Total	78.2	69.7	-8.5	-6.9
Less China	73.7	71.3	-2.4	-1.6

Source: WDR calculations, based on data in Ravallion, Chen, and Sangraula 2007.

Note: Poverty rates are estimated using the 1993 \$2.15-a-day poverty line.

when China is excluded from the sample, 67 percent of the reduction in rural poverty is from causes other than migration. Note, however, that this decomposition is an accounting exercise and thus does not speak to the indirect ways in which migration and urban growth contribute to rural poverty reduction (such as remittances).

Rural areas contribute to a large share of the decline in national poverty

What, then, is the contribution of rural poverty reduction to overall poverty reduction? There are two ways to decompose aggregate change in poverty between 1993 and 2002

into the rural contribution, the urban contribution, and a population shift component (table A.2).⁷ In the first decomposition, the rural contribution is the reduction in the rural poverty rate applied to the rural population in 2002. The urban contribution is the reduction in the urban poverty rate applied to the 2002 urban population (the urban population of 1993 plus the migrants). And the rural-urban migration contribution is the poverty reduction corresponding to the transition of migrants from the rural to the urban poverty rate.

A second specification assumes that all migrants are poor. By attributing maximum contribution of migration to the reduction of poverty in rural areas, this decomposi-

tion gives a lower bound for the genuine reduction of aggregate poverty achieved in rural areas.

A lower bound for the contribution of the rural sector to the decline in overall poverty is 45 percent, and a more likely contribution is more than 55 percent (table A.2). Outside China, the contribution of rural areas is likely to be 80 percent (certainly not less than 52 percent), and in Sub-Saharan Africa more than 80 percent. Rural development is thus essential to reduce poverty and achieve the Millennium Development Goal of halving the aggregate poverty rate.

Within-country heterogeneity: less favored areas and poverty

Beyond the rural-urban income divide, within-country heterogeneity in poverty across rural areas is a significant concern in many countries. It is commonly stated that agricultural and rural investments should be directed to less favored areas because poor people are concentrated there. Others dispute this.⁸ Recent advances in geographic information systems provide new opportunities to answer basic questions about the spatial distribution of rural poverty in relation to agriculture. Methods to estimate welfare at the level of small communities, often referred to as "poverty mapping," provide basic information on the location of the poor. This information can be overlaid with geographic information on agroecological conditions and market access, such as reported in chapter 2.

Table A.2 Contribution of the rural sector to the aggregate poverty change

Region	Aggregate poverty rate (\$2.15-a-day poverty line)			Contribution of rural sector to aggregate poverty change	
	1993	2002	change 1993–2002	Poverty-neutral migration	All migrants poor
Sub-Saharan Africa	79.8	77.5	-2.2	81.1	44.6
South Asia	85.1	83.4	-1.7	32.8	17.4
India	89.1	85.6	-3.5	60.7	56.0
East Asia Pacific	70.6	45.6	-25.0	53.4	48.8
China	72.8	44.6	-28.3	52.0	48.8
Middle East and North Africa	23.5	23.5	0.1	n.a.	n.a.
Europe and Central Asia	16.6	13.6	-3.0	14.1	3.5
Latin America and Caribbean	29.6	31.7	2.1	-10.3	88.1
Total	63.3	54.4	-8.8	55.5	45.1
Less China	59.6	57.9	-1.8	78.8	52.4

Source: WDR calculations, based on data in Ravallion, Chen, and Sangraula 2007.

Note: Poverty rates are estimated using the 1993 \$2.15-a-day poverty line.

n.a. = not applicable.



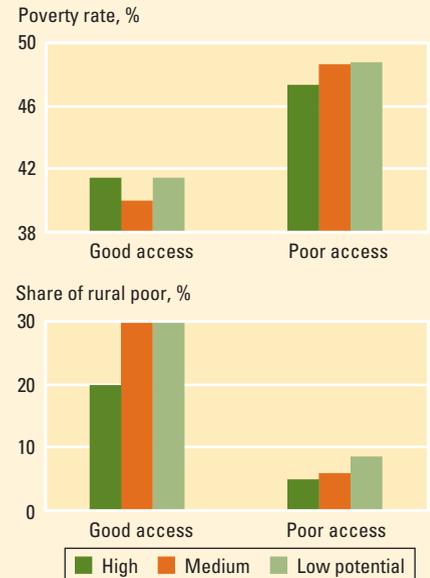
Analyses for Brazil, Ecuador, Thailand, Malawi, and Vietnam show that poverty rates tend to be higher in remote areas than in more accessible areas (figure A.3). Poverty is also deeper and more severe in remote areas. But at the level of disaggregation used for poverty, there is no general relationship between poverty rates and agricultural potential.⁹

The spatial patterns in the *numbers of poor people* (poverty density) are strikingly different from those for *poverty rates* (poverty incidence). In all the countries studied the majority of the rural poor live in localities with good access, as seen in Brazil (figure A.3).¹⁰ This is largely because less favored areas are typically less densely populated than are favorable areas. In Brazil, for example, 83 percent of the rural population lives within two hours of a large city. By contrast, there is no clear pattern among countries for the distribution of the poor population and agricultural potential. Whereas in Brazil more poor people (75 percent) live in low

and medium agricultural potential areas, in Thailand and Cambodia more than 70 to 80 percent live in good agricultural potential areas.

Where poverty incidence does not coincide with poverty density, there are important tradeoffs in the regional targeting of policy interventions. The greatest impact on poverty may be through fostering growth in more favored regions where most poor people live, especially growth that generates incomes for smallholders and creates employment. Yet the extreme poor in more marginal areas are especially vulnerable, and until migration provides alternative opportunities, the challenge is to improve the stability and resilience of livelihoods in these regions. One concern with marginal areas is the possible existence of geographic poverty traps. Evidence of such traps has been shown for China, for example.¹¹ In such a case, reducing rural poverty requires either a large-scale regional approach or assisting the exit of populations.

Figure A.3 Incidence of poverty and geographic characteristics, Brazil



Source: Buys and others 2007.

Note: High agropotential areas are those with very high or high agropotential under the GAEZ (Global Agro Ecological Zones) classification, which accounts for climate, soil, terrain, and land use, created by the Food and Agriculture Organization and IIASA in 2000. Medium agropotential areas are those with a medium or moderate GAEZ classification. Low agropotential areas are those classified as low, marginal, or very marginal in the GAEZ classification. Good access is defined as travel time of not more than two hours to the nearest city with a population of 100,000 or more. The share of the poor population is calculated for rural areas at the district level.

