

Agriculture's Special Powers in Reducing Poverty

BY PAULA SAVANTI AND
ELISABETH SADOULET

The face of poverty is a rural farmer

THREE OUT OF FOUR of the world's poorest people—2.1 billion earning under \$2 a day—live in rural areas, and most of them make their living, directly or indirectly, from farming.

Poverty is overwhelmingly a rural problem. That this is so, and that it endures, reflects the failure of agriculture to deliver decent livelihoods for such a large proportion of those who depend on it. Can this disappointing legacy be overcome?

Successful initiatives to boost farm productivity in China, India and Ghana offer compelling lessons and grounds for confidence that agriculture has special powers which, properly tapped, can offer a way out of poverty for millions.

Globally, the proportion of rural poor dropped from 37 percent in 1993 to 29 percent in 2002, largely due to East Asia, where poverty rates declined from 35 percent to 20 percent in ten years. The actual number of rural poor in East Asia was almost cut in half, from 400 million in 1993 to 220 million in 2002.

But 39 percent, or 400 million rural dwellers in South Asia live in extreme poverty (less than \$1 per day). In Sub-Saharan Africa, the poverty rate has hovered above 50 percent for a decade, while the absolute number of poor has increased from 208 million in 1993 to 228 million in 2002. A majority of the poor will remain rural for many years to come.

Agriculture is the main source of livelihood for about 2.5 billion people, including 1.3 billion small-holders and landless workers. With so many poor engaged in it, it is



A farmer in Huaibei, China.

clear that a more dynamic and inclusive agricultural sector could have a dramatic impact on rural poverty, helping countries meet the first of the Millennium Development Goals, that of halving poverty and hunger by 2015.

Agriculture has special powers in reducing poverty

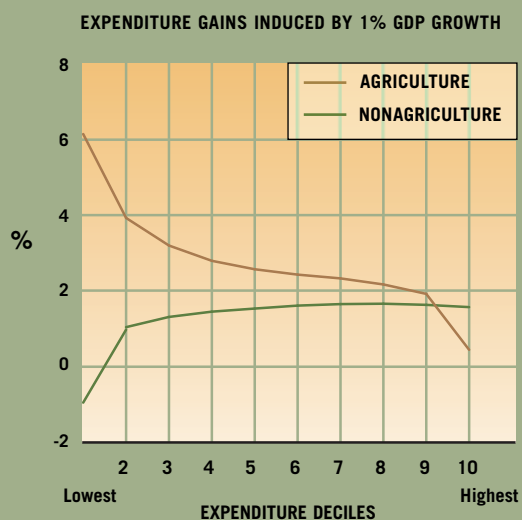
AGRICULTURAL GROWTH can reduce poverty directly, by raising farm incomes, and indirectly, through labor markets and by reducing food prices. Increased farm productivity boosts farm incomes; if poor smallholders participate in this agricultural growth process, they will benefit.

Agricultural growth also reduces poverty through labor markets, to the extent that it creates employment opportunities for the poor. In South Asia and Latin America, 25 percent of working-age men—usually the poorest—are employed as farm laborers. If farm production expands, these men will benefit.

Finally, increased productivity of non-tradable staple foods reduces domestic food prices for poor consumers. In addition to the urban poor, who spend a large share of their incomes on food, more than half of poor rural households are typically net food buyers who stand to benefit from lower prices. Studies from India show that, in the long term, food prices have a major influence on whether or not people can get out of poverty.

That agriculture has special poverty-reducing power is borne out by econometric studies showing its comparative advantage in this area. Cross-country estimates show that overall GDP growth originating in agriculture is, on average, at least twice as effective in benefiting the poorest half of a country's population as growth generated in nonagricultural sectors (Figure 1).

FIGURE 1: EXPENDITURE GAINS FROM GDP GROWTH BY SECTOR



Source: Ligon and Sadoulet 2007, "Estimating the Effects of Aggregate Agricultural Growth on the Distribution of Expenditures." Working Paper, The World Bank.

China, India and Ghana have all had relatively high agricultural growth rates, and reduced poverty substantially as a result. But success in agriculture does not always reduce poverty. In Bolivia and Brazil, where agricultural growth has been concentrated in a dynamic export-oriented sector of large capital-intensive farms, agricultural employment declined and shifted to higher-skilled, higher-wage workers, with few poverty reduction effects.

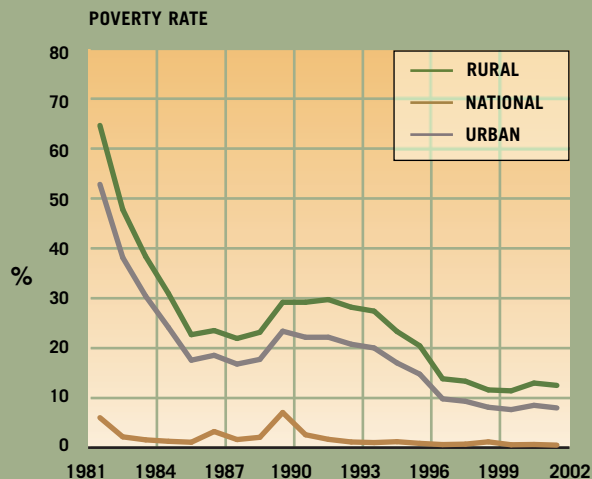
China's unprecedented reduction in rural poverty

CHINA'S POVERTY REDUCTION in the past 25 years is unprecedented. Poverty fell from 53 percent in 1981 to eight 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 poverty reduction (Figure 2).

The sharpest reduction was in the early 1980s, 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 farm price liberalization all had strong positive effects on incentives for individual farmers. In the first years of the reforms, agricultural production and productivity increased dramatically, in part through farmers' adoption of high-yielding hybrid rice varieties. Rural incomes rose by 15 percent a year between 1978 and 1984.

Although less dramatic in the late 1980s and 1990s, the contribution of agricultural growth to poverty reduction remained important, reducing poverty more than did either industry or

FIGURE 2: URBAN AND RURAL POVERTY IN CHINA



Source: Ravallion and Chen 2004, "China's (Uneven) Progress Against Poverty." Policy Research Working Paper, The World Bank.



A woman harvests wheat near the village of Jajjal, India.

contributed to disparities in regional and sectoral economic performances. Rising inequalities and lagging regions will have to be addressed if China is to maintain its past record in poverty reduction.

Reducing rural poverty in India

IN THE 1960s AND 1970s, the introduction of semi-dwarf 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

services. The success of the early agriculture-led reforms increased the demand for nonagricultural goods and released a surplus of labor and capital into the rural non-farm sectors. As the rural non-farm economy thrived, it provided employment and income to millions of people whose work was no longer needed on farms. The share of the rural non-farm sector in gross domestic product (GDP) went from close to zero in 1952 to more than one-third in 2004.

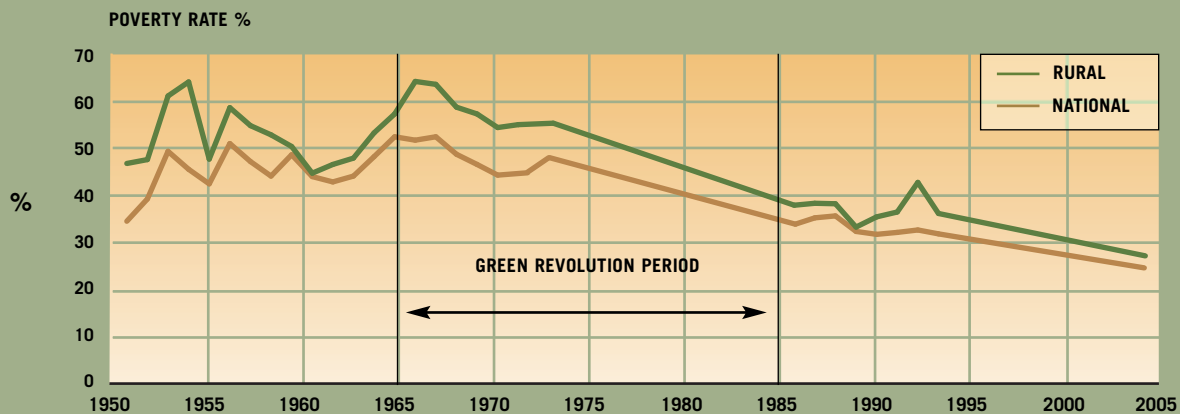
But higher incomes for large parts of the population came at the cost of higher inequality. Unlike most developing countries, China has higher income inequality in rural areas than in urban areas. There are also large regional and sectoral imbalances. Restrictions on internal labor migration, industrial 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 all

and a decline in grain prices. Growth in the agricultural sector reduced poverty in both urban and rural areas. Land reform, rural credit, and education policies also played a role in the 1970s and 1980s.

Beginning in 1991, India instituted sweeping macroeconomic and trade reforms that spurred growth in manufacturing and, especially, in services. Poverty data for 2004 show a continuing decline in poverty rates, but urban incomes and expenditures have increased much faster than rural incomes, resulting in a steady increase in rural-urban disparity. Despite impressive growth and poverty reduction in the 1990s, the picture of overall welfare gains is compromised by these inequalities; health outcomes, for example, have not improved among the poorest populations.

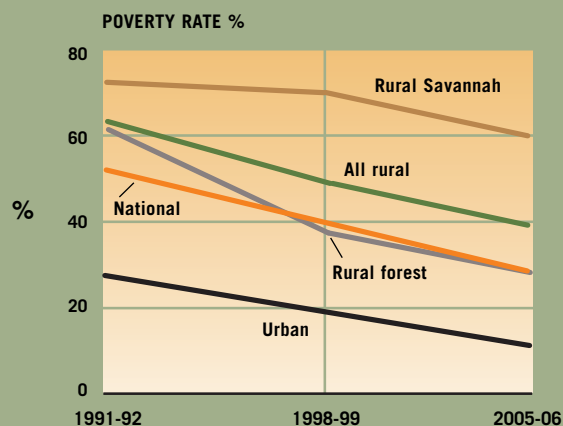
India's recent reforms, unlike China's, were not directed at agriculture. Today, there is a renewed policy focus on agricul-

FIGURE 3: INDIA POVERTY RATES



Source: WDR 2008

FIGURE 4: GHANA POVERTY RATES



Source: Coulombe and Wodon 2007, "Poverty, Livelihoods and Access to Basic Services in Ghana: An Overview." The World Bank (unpublished paper).

ture in India, because many believe that the full poverty reduction potential of agriculture in India has yet to be unleashed.

Ghana: African success in poverty reduction

GHANA'S GROWTH AND POVERTY REDUCTION over the past 15 years is Africa's success story. Real GDP has grown at more than four percent a year since 1980 and at more than five percent since 2001. The poverty rate fell from 52 percent in 1991 to 29 percent in 2005, making Ghana the only country in Sub-Saharan Africa to have already met the Millennium Development Goal of halving poverty.

Ghana's accelerated growth is the 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 almost six percent a year, faster than overall GDP at 5.2 percent. Over the last 15 years poverty fell 17 percentage points in urban areas and 24 in rural areas.

Agricultural growth has been driven mostly by expansion of cultivated areas, with yields increasing modestly at one 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, accounted for about 30 percent of agricultural growth. Ghana has also enjoyed strong growth in horticulture, 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.

Ghana is among only a few Sub-Saharan Africa countries to register sustained positive growth in per capita food production since 1990. On the downside, it also shows evidence of environmental degradation and unsustainable natural resource use. Meanwhile, the resource and export base of the economy remains narrow, and the economy is highly vulnerable to external shocks. Food crop and livestock production

need to intensify to sustain current rates of agricultural growth and deliver benefits to more people, especially those in the northern rural savannah, where agricultural growth and poverty reduction has been halting and slow.

Agriculture's three poverty-reducing paths

THE LARGE AND PERSISTENT GAP between agriculture's share in GDP and its share in employment suggests that poverty is concentrated in agriculture and rural areas. This implies that, as non agricultural growth accelerates in some countries, much of the rural population remains poor, resulting in widening rural-urban income disparities.

Broad based growth in the rural economy is therefore essential to reduce both absolute and relative poverty. But the contribution of agriculture to poverty reduction differs according to country types.

- In agriculture-based countries, where large proportions of the population still depend directly on farming, a productivity revolution in smallholder farming is required, which can raise incomes and reduce poverty, as was the case with cocoa in Ghana.
- In transforming countries, where urban dwellers' rapidly rising incomes are leaving many of the rural poor behind, as in China and India, a comprehensive approach is needed that offers rural populations multiple pathways out of poverty: encouraging shifts to high value agriculture, decentralizing non-farm economic activities to rural areas, and providing assistance to help people move out of poverty.
- Finally, in urbanized countries where agriculture has a smaller share of the economy, but where deep pockets of rural poverty remain, agriculture can help reduce the remaining rural poverty if smallholders become direct suppliers in modern food markets.

Paula Savanti is a Consultant for Agriculture and Rural Development in Sub Saharan Africa at the World Bank.

Elisabeth Sadoulet is a Professor of Agricultural and Resource Economics at the University of California at Berkeley.



An agricultural worker picks cocoa pods in Ghana.