

REDUCING POVERTY AND HUNGER IN ASIA

Agricultural and Rural Development for Reducing Poverty and Hunger in Asia: Past Performance and Priorities for the Future

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In the past 30 years Asia has experienced dynamic growth and structural transformation and achieved substantial poverty reduction. The extension of current trends will create a dramatically transformed Asia by 2015. The incidence of people living in poverty in the region has fallen from more than 50 percent in the mid-1970s to 18 percent in 2004, and the incidence of hunger from more than 30 percent to 16 percent. Currently the region is home to 520 million hungry people (as defined by the Food and Agriculture Organization of the United Nations [FAO]) and 600 million poor people (as defined by the World Bank).

By 2015 Asia's share of global gross domestic product (GDP) will approach 42 percent, but Asia will still be home to half of the world's poor, and projections show that three-quarters of these poor will live in rural areas. Currently 85 percent of those who live on less than a dollar a day live in rural areas. Generating productivity increases in agriculture and nonfarm rural industries is critical in a region in which 60 percent of the population will still live in rural areas in 2015. Solving rural poverty in Asia is thus essential to facilitating the participation of the poorest in the region's growth.

ACHIEVEMENTS TO DATE

In 1975 agriculture accounted for between 30 and 40 percent of GDP and 49–94 percent of the workforce across the region, so growth in this sector was a major source of overall economic growth well into the late 1980s (Table 1). Agricultural growth was driven by productivity increases in agriculture resulting from higher yields, expansion of irrigation, higher agricultural labor productivity, and scientific and technological advances.

In South Asia these productivity increases were in large part due to the Green Revolution, whereas in other countries they were driven mainly by agricultural policy reform. Although early growth in agricultural income in China was accelerated by Green Revolution effects, later growth resulted from the break-up of

collective farms, the introduction of the household responsibility system, reforms to the procurement system, and the liberalization of agricultural prices. Picking the "low-hanging fruits" of agricultural reform not only resulted in a one-time gain to agricultural growth, but also triggered a monumental expansion of the Chinese economy.

Because poverty is concentrated in rural areas and many poor people depend on the farm sector for their incomes, agricultural growth had a substantial impact on poverty reduction, regardless of agriculture's share in overall GDP. This impact is shown in the experiences of both China and India: Indian states that saw the largest poverty reductions also experienced the highest agricultural growth, and the periods of greatest poverty reduction in China were the ones when agricultural incomes increased the most. Agricultural growth contributed most to poverty reduction when land was equitably distributed (as in Indonesia), new technologies could be profitably adopted on farms of all sizes (such as Green Revolution technology), rural infrastructure connected villages to local markets (as in the lowland areas of Vietnam), and farmers were able to diversify into the rural nonfarm economy (such as in Bangladesh).

Agricultural growth affects rural poverty reduction not only by increasing farm incomes, but also by stimulating the nonfarm economic sector in rural areas and small towns. Studies in the 1980s showed that the impact of a US\$1 increase in agricultural value added in the region resulted in an increase in nonfarm value added of between US\$0.50 and US\$1. Nonfarm income—which includes rural trade, services, transportation, handicrafts, transfers of remittances, and small-scale manufacturing—now accounts for 51 percent of rural income in Asia. The contribution of the rural nonfarm economy to reductions in rural poverty has resulted as much from indirect effects—the tightening of rural labor markets and increases in agricultural wages—as from direct increases in income-earning opportunities.

Table 1—Share of Agriculture in GDP and Growth, and Trends in Poverty

Region/Country	Share of Agriculture in GDP (%)		Share of Agricultural Growth in Overall Growth (%)		US\$1 a Day Poverty (%)	
	1975	2005	1975–1985	1995–2005	1981–1983	2004
East Asia and the Pacific	32	13	20	7	58	9
China	32	13	21	6	64	10
South Asia	40	19	18	10	50	31
India	41	18	17	9	48	34

Source: World Bank, *World Development Report 2008* (Washington, DC: 2007).

The rate of progress has not been uniform, however. In East Asia and the Pacific, the value added in agriculture grew at about 4.7 percent during the 1980s, 3.5 percent during the 1990s, and 3.4 percent during 2000–2004, whereas in South Asia the respective rates of growth during these periods were 4.4, 3.2, and 2.1 percent. Within countries, regional disparities have also been stark. In India, for instance, half of the poor are found in just three states. The most disadvantaged regions often suffer from poor agroecological conditions and limited market access, although their poorer record on poverty reduction could also be due to public policies or poor governance. Thus there are in fact many “Asias” today, and policies to deal with poverty and rural development must be tailored accordingly.

Specific groups within the region have benefited less from growth. Ethnic minorities located in mountainous regions in Southeast Asia (such as in Laos and Vietnam), tribal peoples in South Asia (such as in Bangladesh and India), and members of scheduled castes in India are examples of these excluded groups. The situation of women in Asia varies from country to country, but in general gender inequality remains a cause for concern. Inclusive agricultural and rural development strategies that offer real opportunities for improvements in well-being for these groups are needed.

CURRENT AND FUTURE CHALLENGES AND OPPORTUNITIES

The continued concentration of the Asian population, particularly the poorest, in rural areas implies that productivity increases in agriculture and nonfarm rural industries remain a critical component of an inclusive growth strategy for the region. It takes time for growth in urban-based manufacturing and service activities to pull and absorb the increasing labor force from the rural sector and for small-scale farming to shift toward a mix of increased-scale, efficient part-time farming arrangements and nonfarm work.

Because accelerating rural growth is a key way to reduce rural poverty, the primary challenge before policymakers is to strengthen incentives, technology, and institutions designed to promote rural growth. Second, measures must be taken to ensure that rural poor farmers and the landless can participate in the fruits of rural economic growth.

The components of a pro-poor development strategy include

- improved access to markets, land, and credit for the poor;
- land markets and land reforms to increase tenure security and access for smallholders;
- the effective use of new and increasingly sophisticated technologies in agriculture and communications, and efforts to make these technologies available to small farmers and rural communities;
- innovations to bring small farmers into the orbit of microfinance and insurance institutions through intermediaries, if appropriate;
- public-sector investment in crop technologies and biotechnology that have high social benefits for the poor; and
- decentralization of extension services to encourage bottom-

up flow of information from farmers about their needs, combined with adaptive, location-specific research.

Encouraging agricultural and rural growth will not be enough to ensure that the poor are included. Investments in education, health, and nutrition are also required. Social protection and safety nets must supplement incomes and provide employment when incomes are jeopardized. Different countries have tried a wide variety of social assistance measures, such as labor-intensive public employment schemes, conditional or unconditional cash or food transfer or subsidy programs, as well as nutritional intervention programs. The lessons learned need to be monitored and analyzed so that improved cost-effective and poverty-alleviating schemes can be devised and shared.

Asia also faces different challenges and opportunities than in the past. Current conditions call for a broader concept of agriculture that encompasses the whole supply chain (production, processing, and retailing) and incorporates the growing role of ecosystem services (such as biomass production for energy, carbon sequestration, and watershed management). Also, a pro-poor rural growth strategy must adopt a concept of nutritional deficiency that goes beyond calories. In particular, rural development strategies need to adapt to a number of new realities.

The Changing Nature of Agriculture

Food markets and agricultural production are rapidly changing in Asia. Cropping patterns are diversifying from traditional cereals and export crops toward newer and higher-value products such as fruits, vegetables, and flowers—all facing rising demand in response to income growth in domestic and export markets. Livestock and dairy production is also increasing in response to rising demand. Food safety and animal health in extended food chains have become increasingly important, and production systems have changed as a result. Consumers are increasingly willing to pay a premium for quality and food safety, and a larger share of consumer food purchases are now made through supermarkets that can meet these demands.

Agricultural energy (biofuel) production presents an opportunity for farmers by increasing demand for agricultural products, including for biomass products. A modern biofuel industry could also provide farmers in parts of Asia with a use for crop residues and marginal land. Because biofuel production can be labor intensive, it may also generate additional employment in rural areas.

Enabling smallholder farmers to connect to these new markets is a challenge for the public and private sector in the region. The productivity advantage of small farms is thought to be derived from lower labor costs, but the new markets often entail higher capital intensity in production, pose greater risks (perceived and real), and demand new skills. Ensuring that new crops and technologies are scale-neutral, training farmers in new crops and markets, improving access to credit for farmers without collateral, and investing in supportive infrastructure such as cold storage facilities are all important points of entry for policy. The benefits can be large because the diversification of small farmers' output raises the value added per capita and helps them escape from poverty.

Information and communication technologies are increasingly used to provide farmers with timely access to information on input and output markets. Institutional

innovations are also under way in credit markets. Small farmers acting individually often cannot achieve economies of scale in supplying value chains and meeting required quality and safety standards for high-value products. Producers' organizations can help small farmers overcome high transaction costs in factor and product markets, achieve economies of scale in input procurement and output marketing, and gain market power in integrated distribution and marketing chains.

The Increasing Role of Nonfarm Income

Nonfarm activities make up a substantial share of the income of farm households in today's Asia. But poor households have difficulty establishing and expanding these businesses, which thus operate on a small scale (rarely employing any nonfamily members) and remain undercapitalized. Many of these businesses suffer from lack of infrastructure, especially electricity and telecommunications services. Strategies are needed to help the poorest farmers invest in and develop these businesses. Improved access to credit and policies that provide reliable, affordable electricity and telecommunications services would support these businesses. Reforms that encourage the formalization of these businesses are also important in enabling the nonfarm sector to play a larger role in markets that are increasingly quality driven.

Liberalized Trade Environment

The agricultural and rural sector in Asia has recently been adjusting to the external forces of competition unleashed by agricultural trade liberalization. As countries deal with the evolving world trading regime, they need to liberalize their own trade while exploiting opportunities for trade within regional organizations and with the rest of the world. For food-exporting countries, export trade liberalization would raise export prices and help small farmers by lifting their incomes and expanding production. But a rise in food prices in these countries could adversely affect poor consumers. The spread of trade liberalization and domestic market reforms may have to be gradual, subject to close monitoring of results and to short-term adjustments.

Lagging Regions

The mountainous regions of Asia require specific attention in economic strategies. Whereas the majority of a country's poor frequently live in the high-potential areas, in the low-potential, low-density areas, most people are poor. This situation poses an important dilemma for policy choices on poverty alleviation. Although promoting growth in the more-favored regions with high agricultural potential and better market access may raise the greatest number of people out of poverty, the extreme poor in the marginal areas (often ethnic minorities) are very vulnerable. Until these people migrate, policymakers face the daunting challenge of improving the productivity, stability, and resilience of their farming systems.

Marginal areas with low agricultural potential may be able to develop nonfarm activities with linkages to urban and industrial areas. Policies can help promote this process by emphasizing the development of human capital—training and skills appropriate to nonfarm activities as well as useful for eventual migration to urban areas.

Investing in infrastructure can also reduce spatial disparities and foster rural–urban linkages. This option must be balanced,

however, against the policy of transferring income in the short run from the more-favored areas to the poor in the less-favored regions, supplemented by measures in the medium term to facilitate migration through investment in education and subsidized resettlement.

Water and Irrigation

The decreasing potential for meeting rising demand for water supplies and quality is a serious challenge in developing Asia. Because much of the future water requirement must be met from existing supplies, the institutional and legal contexts of water supply and use will need to change. Essential components of an agenda for action on water include the removal of subsidies and taxes that lead to the misuse of water, the establishment of property rights, greater participation of water users in management, and the development of water markets whenever possible to send correct signals about the real value of this basic resource.

Climate Change

Climate change in the next decade and beyond poses a serious risk to Asia. The impacts will get progressively more severe as mean temperatures rise and climate becomes more variable.

Adaptation to climate change includes a broad range of policies—changes in land use and timing of farming operations, adaptive breeding and technologies, risk management techniques including catastrophic or weather-risk insurance, climate forecast information, irrigation infrastructure, water storage, and water management. Poor farmers in particular may need special help in adapting to climate change. Some steps, like long-term weather forecasting and the dissemination of technology and drought- and flood-resistant crop varieties, will require national and international planning and investment.

Agriculture's contribution to greenhouse gas emissions may be reduced by new crop and livestock breeding and planting technologies. In addition, the emerging market for carbon emissions trading offers new opportunities for farmers to benefit from land uses that sequester carbon. But the cost of reducing greenhouse gas emissions from farming may be much higher than the costs in the transport and power sectors. Little work has been done thus far to assess mitigation potential in agriculture.

Risk and Insurance

Agriculture is subject to a variety of risks—from output and price fluctuations caused by weather variations and pest outbreaks to changes in demand and world markets—and new markets can be characterized by increased risk (as in the case of perishable fruit and vegetable production) or at least higher perceived risk (perhaps as a result of new production techniques or marketing unknowns). Building innovative insurance markets around risks that directly and indirectly affect Asia's rural poor is a real opportunity. Information and communication technology and institutional innovations provide the means for change. Poor people's use of savings to cope with these risks is hindered by the limited development of rural savings instruments and institutions for the poor, a situation being gradually remedied by microfinance institutions. Some of them have started to establish insurance schemes of their own, including health and life insurance, which are particularly important for the rural poor. More-formal insurance mechanisms related to crop futures,

including those organized or subsidized by the government, are currently underdeveloped in Asia and require careful assessment.

Increased Focus on People and Human Resources

The main source of rural change in the future will be healthy, well-nourished, trained, and educated people. The human resources agenda for rural poverty reduction should include increased attention to micronutrient malnutrition and food safety as well as to agriculture–health linkages, including linkages between animal health and human health. Development of the food system to improve food security and nutrition is thus part of pro-poor agriculture and rural development.

Increased Need for Transparent Institutions

Access to information about the functions, policies, and decisions of local government, rural development institutions and agencies, and organizations of poor farmers, workers, and small businesses is vital. The latter groups need to have clear oversight and monitoring functions in order to protect and preserve their own interests against the capture of power by vested interest groups.

CONCLUSION

Agricultural and rural development strategies are a critical component of an inclusive growth strategy for Asia, where poverty remains predominantly rural. In developing these strategies for today's Asia, policymakers can learn from the region's experiences of the past 30 years, but trends cannot be simply projected. The challenge is to determine where these lessons can and cannot serve as a guide, and this challenge is partly country- and location-specific.

In the context of the new realities described in this brief, priority action areas for achieving inclusive agricultural and rural development include

- using technological innovations in new agricultural supply chains;
- investing in infrastructure and communications systems to reduce spatial disparities and foster rural–urban linkages;
- developing ecosystem services through public–private cooperation to meet the challenges of water scarcity and climate change;
- encouraging development of finance and insurance interventions for the poorest; and
- providing effective safety nets and nutritional improvement in rural areas.

Effective and equitable implementation of these priority actions and other components of an inclusive rural development strategy require strong institutional and organizational arrangements and good governance. The rural poor need to participate in developing and implementing policies and programs. Decentralized rural political systems are an important instrument, as are innovations in institutions that ensure gender equity, inclusion of minorities, and participation of the poorest in markets and the provision of services. The priority action areas listed provide broad guidance but will have different weights in the different regions and countries of Asia. What is needed is a fresh initiative to identify the appropriate actions for inclusive agricultural and rural development in those regions of Asia where most of the poor live, and where the poorest live. ■

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