Pro-Poor Economic Growth Research Studies
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Panel 4

Agriculture and Pro-Poor Growth

by

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No country has solved its problem of poverty through agricultural development alone (much less through higher productivity for a single commodity such as rice). At the same time, no country (except Singapore and Hong Kong) has solved its problem of poverty *without* creating a dynamic agricultural sector. The secret is a successful *structural transformation* where agriculture, through higher productivity, provides food, labor, and even savings to the process of urbanization and industrialization. This process raises labor productivity, causes wages to rise, and gradually eliminates the worst dimensions of absolute poverty. The process also leads to a decline in the *relative* importance of agriculture to the overall economy. And no country has undergone a successful, i.e. sustainable, structural transformation without substantial openness to the world economy. Economists continue to debate the optimal sequencing and degree of openness, but all agree that joining the global economy has the potential to *improve the efficiency of resource allocation* and *speed technological change*, which are the short-run and long-run sources of economic growth. *Pro-poor* economic growth is the basic vehicle for reducing poverty.

I Overview

What role does agriculture play in stimulating economic growth and enhancing its impact on the poor? Most of the world's poor live in rural areas, or migrated from them in search of better opportunities. Many of these poor are farmers. It seems obvious that improving agricultural productivity should raise farmers' incomes and reduce the incidence of poverty. Further, more food means fewer poor people because poverty lines are usually defined with reference to the adequacy of food intake. Growth in agricultural productivity should be the surest way to end poverty.

Of course, the world is not so simple. In many circumstances, the poor do not have access to the returns from higher agricultural productivity. In many other environments, higher agricultural productivity leads to lower food prices. Consumers benefit, particularly poor consumers who spend a large share of their budget on food. But farmers can end up worse off. So using agricultural technology to solve problems of rural poverty is complicated at best.

In an era of global markets and open economies, the connections between agricultural growth and reductions in poverty are even more tenuous. Indeed, the anti-globalization protests demonstrate that many people believe that globalization destroys whatever positive links might have existed in the past. Still, *in the right policy environment*, the

positive connections remain powerful. In many circumstances there is no alternative to "getting agriculture moving" if poverty is to be reduced significantly, even though the need to diversify agriculture as part of this process complicates the task even further.

The task of agricultural development was much easier under the impetus of the first Green Revolution, when the widespread need for greater cereal output was met by new seed-fertilizer technologies. Now, with staple cereal prices at all-time lows in world markets and population growth slowing, a dynamic and profitable agriculture will depend on diversification into crops and livestock with better demand prospects, such as fruits, vegetables, and a variety of livestock products. At the International Rice Congress in Beijing in mid-September, 2002, Peter Kenmore, speaking on behalf of the Director-General of FAO, reminded his audience that this diversification process in Asia will depend on continued availability of low-cost rice, especially in rural markets. In Africa, having cheap corn, wheat and rice available in rural markets will be important if diversification is to be successful.

Connecting the poor to this more diversified agricultural growth will be more difficult than during the first Green Revolution, especially if the highly demanding quality standards of domestic supermarket supply chains and export buyers tend to exclude small farmers from access to the most rapidly growing sector of food retailing. This pattern of exclusion was seen widely in Latin America (see Reardon and Berdegue, 2002). But the connections remain important because, in many countries, the poor are more numerous than ever. Even in countries with sharply reduced numbers of poor, such as China and Indonesia, poverty remains as an urgent problem, especially in rural areas. If the first generation Green Revolution did not solve these problems of poverty, hope must now fall on the far more complex mechanisms that will link the poor to the productivity gains of the next generation of agricultural innovations.

These mechanisms connecting agricultural growth to poverty reduction fall into three basic categories: (1) agriculture's stimulus to overall economic growth; (2) the tendency for rural growth to be pro-poor; and (3) nutritional connections to increased food production.

First are the basic linkages that connect faster agricultural growth to faster growth in the overall economy. Articulated to a general economics audience by Johnston and Mellor in 1961, these linkages have long been part of the core of modern development theory and practice (Timmer, 1988, 2002b). Recent research has established that economic growth usually has a direct impact on poverty (Deininger and Squire, 1996; Ravallion, 2001). So any contribution agriculture makes to speeding overall economic growth will, in most circumstances, also be a direct contribution to reducing poverty.

The second mechanism enables agriculture to make economic growth even more "pro-poor" than it would be if the source of growth came from the industrial or service sectors. There is growing evidence, summarized in Appendix I, that the "elasticity of connection" between the poor and overall economic growth depends in important ways on the sector of growth, along with initial conditions in the economy, including the distribution of

assets and income (Timmer, 1997, 2002b; Ravallion and Datt, 1996, 2002). New agricultural technologies that improve farm productivity seem to play an important role in improving this elasticity of connection. The potential importance of this mechanism to USAID is the rationale for developing a handbook of "best practices" on how to enhance the pro-poor dimensions of economic growth.

The third mechanism linking agricultural growth to poverty reductions is both more direct and more subtle. Lower food prices reduce poverty directly—greater food intake means less hunger--and so the poor have a major stake in efforts to increase agricultural productivity. But there is a micronutrient story as well—the poor are more vulnerable to the "hidden hunger" that comes from micronutrient deficiencies because of the low quality of their diet. In a wide variety of circumstances, the array and diversity of foods available in local markets have a direct impact on the quality of diets consumed by rural households. In rural markets, most of these foods come from local farms. Dietary quality is reflected in a number of ways, including the starchy staple ratio, the amount and quality of protein, and the availability of such critical micronutrients as iron, Vitamin A, and iodine. Micronutrient deficiencies are called "hidden hunger" because availability of micronutrients in foods is not apparent without specific training and knowledge, but these deficiencies can be reduced sharply by consumption of appropriate fruits, vegetables and livestock products. Having these products available in local markets, and cheap enough for the poor to have reliable access, can make a significant contribution to lowering the welfare consequences of poverty (Block, 2002).

One of the most visible determinants of poverty is hunger and malnutrition. The development profession continues to argue over which causes which, but hunger as a *measure* of poverty is widely established. Most poverty lines have an explicit or implicit food component. Preventing famines, children from becoming acutely malnourished, and mothers from delivering underweight babies has motivated much of the humanitarian assistance delivered around the world. With abundant food in rich countries, it seems a tragic waste not to feed the hungry in poor countries. With powerful political forces aligned behind this reasoning and much popular support for foreign assistance driven by television images of starving children, it would be foolish, even dangerous to ignore the link between hunger and poverty, and to extend that link to food aid.

And yet, the link is more tenuous than supposed. The evidence for nutritional poverty traps, where workers are too malnourished to work hard enough to feed themselves and their families, has strong historical dimensions (Fogel, 1991, 1994; Bliss and Stern, 1978; Strauss, 1986; Strauss and Thomas, 1998). But simple energy shortages cannot account for very much of the *chronic poverty* observed over the past several decades because the cost of raw calories, in the form of staple foods, has fallen too sharply relative to wages for unskilled labor (Fox, 2002). If inadequate food intake is the primary *cause* of poverty, the solution would be in sight (and food aid could be an important part of the answer). If, however, *poverty* is the main cause of inadequate food intake, hunger will be much harder to end, and the domestic agricultural sector is likely to play a key role (and ready availability of food aid may well be part of the problem).