

Agriculture and Economic Growth in Vietnam

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AGRICULTURE AND ECONOMIC GROWTH IN VIETNAM¹

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Rapid economic growth is the only sustainable foundation for the elimination of poverty. However, only strategies that include agricultural development can establish strong links between overall growth and reduction in poverty. Most strategies that seek rapid industrialization at the expense of agriculture, even if the intent is to alleviate poverty, actually slow down economic growth and increase levels of poverty. In a country with many impoverished people, policymaker must address both growth and poverty through an integrated development strategy. Rapid reductions in poverty are achieved most effectively when the strategy for economic growth specifically focuses on raising rural productivity².

The task of restructuring the Vietnamese economy so that it can pursue a market-led growth process creates serious hardship for groups of the population whose skills and jobs do not fit the new challenges. Competitive pressures can cost them their livelihoods, and the state can no longer provide the subsidies to firms and agencies that served in the past as a guarantee of employment and access to a minimum standard of living. In the short run, some mechanisms must be found to alleviate the wont consequences of their poverty. With retraining and rapid economic growth, these vulnerable groups will be able to reenter the work force.

The only road out of poverty, for both the country and these vulnerable groups, is to produce efficiently the goods and services that meet expanding consumer demand - whether from rural households, urban wage earners, or foreign markets. Such market-led growth does not automatically eliminate poverty, however, and the development strategy - how the growth process is managed - is the key element in how extensively the poor participate in this process. The primary concern of the poor is for new income earning opportunities, through wage labor or direct production on their farms, in small workshops, and through marketing activities. The distribution of land and other assets is an important element in the potential for a broad-based participation in a dynamic rural economy. Vietnam is comparable to other East Asian countries in this regard. If longstanding disputes over land tenure can be resolved - and the Law of Land passed on

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July 14, 1993, is an important step in this direction - the country has the opportunity to start its growth process from a base of small farmers who can make long-term investments in both their physical and human capital as a way of improving the welfare of their families.

Human capital is not just the responsibility of private decisions by individual households, however. Public investments in universal education, in public health clinics, and in nutrition intervention projects for vulnerable populations at the local level can be a major factor in raising the productivity of the poor. Human capital, not physical effort, is the ultimate source of higher incomes. For the poor to escape poverty, and for the country to develop, the government must find a way to fund investment in the public sector that generates new skills, better health, and an improved diet for all, and these investments must reach the poor in rural and urban areas. A dynamic agricultural economy is an essential ingredient in realizing these goals.

THE NEGLECT OF AGRICULTURE AND THE PERSISTENCE OF POVERTY

The persistence of poverty, in rich countries and poor, challenges all models of economic development. In the socialist model, state control of assets and distribution was meant to guarantee an equitable standard of living for all. But the allocation of resources in this model has been so inefficient that socialist economies have not been able to maintain even modest standards of living. Efforts to emulate the standards of rich countries in the west have been disastrous and have ultimately led to the overthrow of political regimes attempting to maintain centralized control while promising such lifestyles.

The capitalist model has delivered economic growth and affluent lifestyles on average, but except in countries with interventionist policies to alleviate poverty, the free-market distribution of incomes has been highly skewed. Disenchantment with "trickle down" economics in the 1970s led to new development strategies focused on basic needs and reaching the "poorest of the poor," but without the rigid controls found in central planning agencies of socialist countries. Unfortunately, plans to deliver a package of basic needs to the poor competed directly with government budgets for marketing infrastructure, new technology, and other growth enhancing investments in public goods. The necessity for rapid growth as a foundation for financing programs to alleviate poverty was little understood, along with the potential for the *right kind of growth* to make the poor themselves more productive.

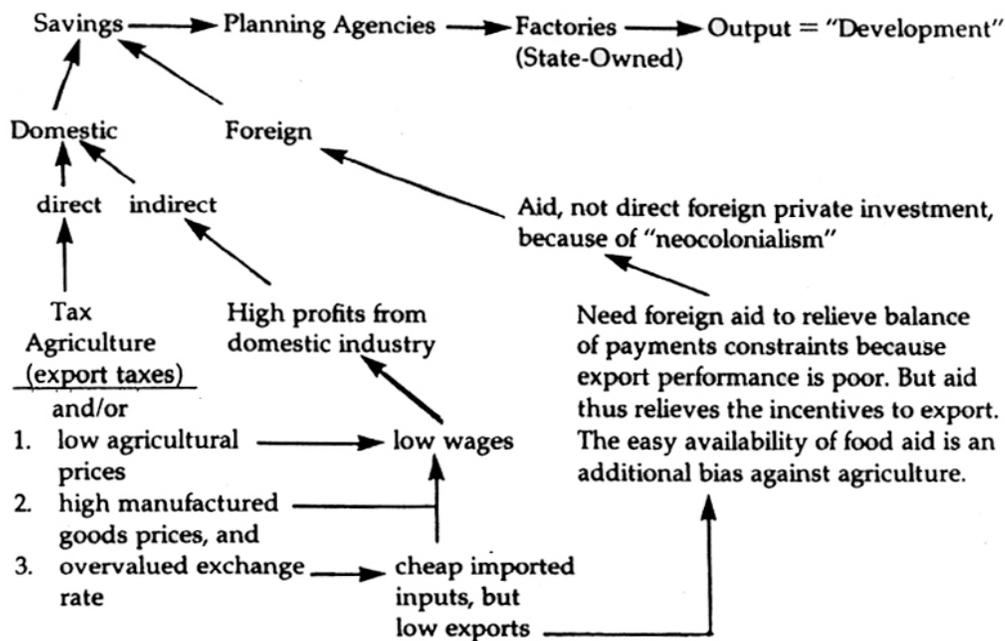
In both socialist and capitalist countries, poverty has persisted. Socialist countries have failed to eliminate poverty despite a strategy of egalitarian distribution and active investments in primary education and public health, because their economies failed to grow efficiently. Capitalist countries have failed to eliminate poverty despite rapid growth except when public policy placed a high priority on poverty alleviation itself, in the context of macroeconomic policies that continued to stimulate growth.

In both sets of countries, the great majority of poor people are found not in cities, but in rural areas. The reasons are not hard to find. First, unless a country's development

strategy calls for active investment in the modernization of agriculture, low productivity and traditional lifestyles condemn rural households to poverty. Few countries have stressed the modernization of agriculture. Second, a pervasive urban bias in economic policy and government investments has built modern hospitals and universities in major urban areas while starving rural areas of funds for primary schools and simple health care centers (Lipton 1993). Third, rural areas are more difficult to serve, even with the best of intentions. Households are more scattered, the roads are few and far between, and the difficulty of life in remote villages makes government service in rural areas an unhappy assignment for any civil servant with talent and initiative.

And yet, in poor countries, agriculture is the key to rapid development, economic stability, and alleviation of poverty. Despite this, few countries have chosen to give the sector the central priority it needs to play this role. To explain this discrimination against agriculture, one has to move beyond the political economy of urban bias to understand the mindset of national leaders, especially those newly in power at the head of revolutionary movements against colonial occupation (Timmer 1993).

The basic model of economic development taught in the 1950s and 1960s by academics and used by policymakers reflected a simple logic (see Figure 1). The driving force of development was the mobilization of savings, which were then allocated to their optimal uses by a national plan. These savings were used to build the modern factories that increased industrial output. This higher output counted as "development".



Note: There are direct trade-offs between agriculture and industry throughout the model. This is the source of the deep-seated bias that helping agriculture will slow down the pace of industrialization, equated with development.

Figure 1. The "Traditional" Development Paradigm

The important strategic question was how to mobilize large volumes of savings because the rate of economic growth was determined directly by the size of capital investment in the industrial sector. Large profits from the new factories were one important source of increased savings, and it was easier to channel these savings directly into industrial investments if the factories were owned by the state.

Still, the most important source of savings to be allocated by the state, especially in the early stage of development when the country was poor, was the surplus from the agricultural sector. Agricultural surpluses were transformed into savings, under the control of the government by direct taxes on exports, low agricultural prices, high prices for manufactured goods sold in the rural areas, and an overvalued domestic currency. In combination, these policies toward the agricultural sector kept industrial (and rural) wages low and imported inputs cheap for manufacturers. This combination was supposed to guarantee high profits in the industrial sector and rapid economic growth.

The structural transformation - the gradual decline in the share of agriculture as the economy grew - meant that increased profits from a rising share for industrial output would replace the important role of agricultural savings in the early stage of industrialization. Reducing the extraction of resources from agriculture was not desirable at this early stage because it would slow the expansion of industry.

Later, as the industrial sector grew quickly to dominate the economy, and agriculture was no longer important, there was no point in using scarce resources to develop agriculture-it was a naturally declining sector anyway. In this simple but influential model, a powerful discrimination against the agricultural sector is revealed, not just as an urban bias caused by labor unions and narrow-minded politicians, but as the core of the development process itself. This early development model suggested that any efforts to help the agricultural sector would inevitably slow down the rate of economic growth, and that nearly all of the government's resources should go to the industrial sector.

This way of thinking about how economic development could be accelerated was widespread among national leaders in developing countries. Historical studies of England and Japan showed the importance of an agricultural revolution to their modern economic growth, but these experiences were considered irrelevant to countries in a hurry to modernize. It was thought better to follow the Soviet model that explicitly (and forceably) followed the path of extracting as many resources as possible from agriculture. The rise of Soviet industrial and military power to challenge the west - the "first" world - had a powerful validating influence on national leaders and their economic policymakers-in the Third World, and especially in Vietnam.

Unfortunately, this strategy of central planning and discrimination against agriculture ruined the economies of many of the poorest developing countries a decade or more before its ultimate unsustainability was demonstrated in the Soviet Union itself. But a number of countries, especially in East and Southeast Asia, broke away from this *dirigiste* and discriminatory model in the late 1960s and early 1970s. These governments did not, however turn their economies over to free trade and total reliance on the private

sector as the engine of economic growth. Instead, the governments of the rapidly growing countries in this part of the world stimulated their agricultural sectors in an effort to achieve food security, while they sought a balance between the appropriate role for market forces and the necessary role of the state throughout the entire economy.

Sustaining rapid economic growth for decade after decade is the miracle of development in East Asia-in Japan, South Korea, and Taiwan. A key lesson from that experience is to use the agricultural sector and the rural economy to pursue growth, stability, and equity simultaneously and to pursue them in a complementary rather than a competitive fashion. In the traditional model of economic development depicted in Figure 1 and used widely in developing countries in the 1950s and 1960s - and in Africa and Latin America until the 1980s - the rural economy was never seen as an element of growth itself, much less as the key to integrating diverse objectives.

By placing agriculture at the center of the development strategy and using the rural economy as a positive contributor to growth, it is possible to address the problems of poverty, economic and political stability, and rapid economic growth - all at the same time. The potential for such a strategy was limited before the rapid gains in agricultural productivity that became available with the Green Revolution. These gains could be turned into an engine for rapid growth, however, only in the context of a rural-oriented development strategy (Mellor and Adams 1986, Timmer 1992).

In the early stages of development, the role of agriculture is to stimulate economic growth through the establishment of linkages to the rest of the economy-supplying food to the cities, purchasing the output from newly established industries, and providing savings and labor to these factories (Johnston and Mellor 1961). Aggressive investments in agricultural development then pay high dividends in economic growth, reduced poverty, and increased food production. Each of these facilitates economic and political stability, which, in turn, stimulates the foreign and domestic investments that sustain rapid economic growth.

Nearly all countries that have actively "undervalued" their agricultural sectors have missed these dividends and have failed to grow rapidly. This undervaluation is imposed through policy biases that reduce the incentives seen by the rural economy below those in world markets. Eliminating this political bias by treating the agricultural sector neutrally - the preferred approach of neoclassical economists - improves significantly on this poor performance. There are very few examples, however, in which a strategy of merely providing agriculture with the same incentives seen in world markets has led to rapid and sustained economic growth.

By contrast, no poor country that has "overvalued" agriculture has failed to perform extremely well in promoting economic growth and alleviating poverty. Such overvaluation corrects for undervaluation on the part of both markets and politics as governments invest heavily in rural infrastructure, effective agricultural technology, an efficient marketing system, a competitive macroeconomic policy environment with an export-oriented exchange rate, and price supports for agricultural output when prices in

world markets are depressed (Timmer 1993). And because so much of a country's poverty is in rural areas in the early stages of development, overvaluing agriculture is the fastest way to reduce the numbers of people who are absolutely poor.

AGRICULTURE AND ECONOMIC GROWTH

The vast restructuring of socialist economies that has been under way in China since 1978 and in Eastern Europe and the former Soviet Union since 1989 raises serious challenges for economists who seek to understand the process and assist in guiding it to a rapid and successful conclusion. Virtually everyone agrees that the ultimate goal is a market-oriented economy that uses price signals to guide resource allocations, investment decisions, and rewards to factors of production. But there is sharp disagreement over how rapidly such a system can be put in place and the role of government in guiding, modifying, and regulating the market outcomes that result. Some economists seem to assume that functioning and competitive markets spring up overnight if the government will simply stop interfering and that world prices always provide the "right" guide to economic decision makers. Others, especially development economists, look at the historical record and are impressed by the length of time it takes to build the institutions that support a market economy and by the important role the public sector must play in stimulating their growth. Further, if poverty and underdevelopment are fundamentally problems of market failures, government interventions will be essential to starting and directing the growth process.

The debate is most clearly drawn in agriculture. The food and agricultural sector is composed of millions of producers and consumers, and it would seem to meet the economist's textbook definition *of* competition. Economies of scale are minimal in marketing basic food staples, and there is ample evidence that both producers and consumers respond to price signals in an appropriate fashion. Most of the commodities produced are traded in international markets; the opportunity costs of government interference can therefore be measured easily. Moreover, the most pervasive lesson from economic history is the relative decline of the agricultural sector as income per capita grows. Free trade, with domestic agricultural markets open to world markets, should stimulate the efficient withdrawal of resources from agriculture on behalf of rapid development of the service and industrial sectors.

However appealing the above approach may seem in theory, it is not the approach used by Asian countries to develop their agricultural sectors. The market-oriented economies of Taiwan and Thailand, the indicative-planned economies of Indonesia and India, and the socialist economies of China and Vietnam have used their agricultural sectors as important sources of growth directly rather than solely as reservoirs of resources for industrial growth. Equally important, except for Brunei and the city-states of Singapore and Hong Kong, all countries in Asia have used their domestic farmers as the basis for providing food security at the national level. To do so, governments have intervened actively to raise agricultural productivity, to stabilize food prices, and to manage access to food on the part of the general population. These are the three most important tasks of

government in managing a food policy whose primary objective is rapid alleviation of poverty.

What Should Vietnam Expect from its Agricultural Sector?

Ideas about the role of agriculture in economic development have changed fairly substantially since the foundation of development 'economics in the 1950s(Little 1982). Especially since the 1970s, when it became clear that several Asian countries were growing faster than anyone expected, an intellectual process has been under way to understand the factors that cause rapid economic growth. To the surprise of many, sustained growth in rural economies has been a key ingredient of the story.

The Asian success in linking rural growth to rapid development of the industrial and service economies was not based on far-sighted leaders suddenly able to redress centuries of urban bias and agricultural neglect. Instead, the priority given to agriculture often grew out of quite rigid constraints imposed by large populations, limited agricultural resources, and unstable world markets. Leaders hoping to stay in power by meeting the rising expectations of their populations were more *or* less forced to pay attention to agriculture. Governments had to learn to be adaptable, pragmatic, and flexible in solving the problems of the agricultural sector, and thus turn it into a source of economic growth. Leaders who approached the agricultural sector primarily from an ideological perspective or with an "industrialization-first" strategy failed to solve those problems. After initial growth spurts based on state-financed and managed industrialization, these societies faced stagnation and repression.

What should Vietnamese leaders expect from their agricultural sector? What policy changes and investments are needed to realize the full potential of the rural economy? Realistically, agricultural growth can provide food security for the country at an aggregate level and substantial contributions to growth of the rest of the economy. These contributions can come directly through rural savings and foreign exchange earned by exporting agricultural commodities, and indirectly through more efficient operation of the economy. With the right approach to developing the sector, food security at the household level can be measurably improved and the pace of poverty alleviation speeded up significantly. To realize these goals, however, the agricultural sector needs a favorable policy environment and massive investments in rural infrastructure (Barker 1993). Neither favorable policies nor rural investments are likely without a shift in priorities away from state-led industrialization.

The rapid economic growth in Southeast Asia since the 1960s can be traced to a considerable extent to the development of a new rice technology that greatly increased yield potential when the surrounding environment - economic, ecological and political - was conducive to rapid adoption by farmers. Some of the linkages between agriculture and the rest of the economy that stimulated this rapid growth are straightforward - foreign exchange, savings, labor, markets for domestic manufactures, and raw materials for agro-processing. But some are more subtle, if no less important. In particular, rapid growth in the rural economy seems to increase the efficiency with which resources are used in the

entire economy. Because increases in total factor productivity are one of the main elements of rapid economic growth, this indirect contribution of agriculture to the growth process may be the most important of all, and yet it is little recognized in the market value of agricultural output (Timmer 1993).

How Agriculture Contributes to Economic Growth: Market Linkages

The language used to describe the interaction between agriculture and economic growth often reveals an underlying bias. The earliest literature discussed the "contributions" of the agricultural sector to the rest of the economy. This was a static view of agriculture as a pool of resources to be extracted (Lewis 1954). A more knowledgeable view, based on fuller understanding of the sector itself, stressed the "role" of agriculture in an interactive growth process. The classic article by Johnston and Mellor (1961) listed five such roles for agriculture: increase the supply of food for domestic consumption; release labor for industrial employment; enlarge the size of the market for industrial output; increase the supply of domestic savings; and earn foreign exchange.

Although three of these roles for agriculture - supply labor, domestic savings, and foreign exchange - are certainly consistent with earlier views of the extractive nature of agriculture, Johnston and Mellor insisted that all five roles are equally important. Agriculture in the process of development is to provide increased food supplies and higher rural incomes to enlarge the markets for urban output, as well as to provide resources to expand that urban output.

These early observations by agricultural economists that the agricultural sector should be viewed as part of the overall economy, and that the emphasis be placed on the sector's interdependence with the industrial and service sector rather than on its forced contributions to them, were largely ignored. The idea of agriculture as a resource reservoir, available to be tapped by economic planners and refilled by natural forces, persisted in general development models, especially in socialist planning models, and in actual policies in most developing countries (Timmer 1992a)

The consequences of ignoring a dynamic role for agriculture have been severe. Forced extraction of resources from a stagnant agricultural sector almost always creates widespread rural poverty, sometimes famine. Market linkages that connect a dynamic agricultural sector to rapidly growing industrial and service sector have the potential to create more opportunities than they destroy if both the agricultural and nonagricultural sector are growing together. Just the policy environment that creates such mutual growth through market forces, however, is not enough. In addition, the set of linkages between the two sectors that are not well mediated by market forces must be developed. For these growth linkages to be realized, substantial government investment is needed in rural infrastructure and price incentives for the agricultural economy.

How Agriculture Contributes to Economic Growth: Non-Market Linkages

In the early stages of development when the agricultural sector remains large in macroeconomic terms, evidence suggests that stimulating its growth has large economy-wide effects. Market prices for agricultural commodities undervalue the indirect effects of agricultural growth in providing resources for economy-wide investment as well as its impact on increasing total factor productivity for the entire economy. Agricultural growth stimulates the entire growth process in ways not reflected adequately in market prices.

The strong positive relationship between the overall rate of economic growth and growth in the rural economy is largely a result of these indirect effects. For a sample of 40 representative countries analyzed by Timmer (1992b), there is a significant positive relationship between growth in the agricultural sector and growth in the nonagricultural sector between 1965 and 1980 (see Figure 2). This clear and positive association between growth in the two sectors does not, of course, show causation. Good macroeconomic policy, for example, will help both sectors to grow independently. But there is also a causal connection, which can be explained fairly simply even though the model involves several steps.

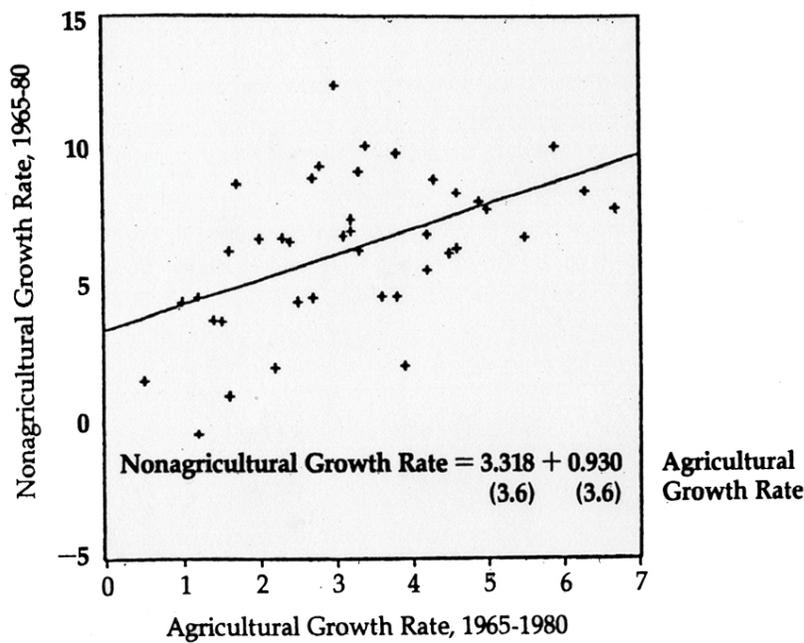


Figure 2. Relationship Between Agricultural and Nonagricultural Growth

Differential rates of economic growth between countries are not explained primarily by different rates of growth in labor and capital. Another major factor is the productivity with which the labor and capital are used, and across the range of developing countries, differences in the rate of growth of total factor productivity are very substantial. They set

apart the rapidly growing countries of East and Southeast Asia from the rest of the developing world. Factor productivity is growing rapidly in these countries, but it is falling in Africa and Latin America (World Bank 1991).

Three major forces explain differences in total factor productivity: the positive effects of competitive pressures; the negative effects from price instability; and the positive effects of agricultural growth. Empirically, the agricultural impact is often larger than the impact from export growth or low inflation.

Several mechanisms can cause growth in agriculture to contribute directly to higher living standards for rural people while also stimulating growth in productivity for the entire economy in a roundabout fashion. Each of them alone should cause an increase in the efficiency of resource allocation as growth in the agricultural sector accelerates. In combination, these mechanisms translate faster agricultural growth into measurably faster economic growth in aggregate, after controlling for the direct contribution of the agricultural sector to growth in GDP itself.

Efficiency of Household Decision Making

An important lesson from efforts to reform socialist economies, especially in Asia, has been the importance of starting the reform process with rural households and agricultural markets (Chen, Jefferson, and Singh 1992; Lu and Timmer 1995). When decision making authority is returned from central planners to rural households and price signals are generated in local markets, the efficiency of resource allocation increases almost immediately, providing an important source of greater output early in the reform process. Rural households are highly efficient in their economic decision making for several reasons. These households nearly always face a "hard" budget constraint. Any failure can mean low income, even starvation. Although this reality makes most rural households quite risk averse, it also teaches them to allocate the resources at their disposal very carefully.

Rural households are also close to the resource base. They know the peculiarities of each plot of land, can judge quickly when irrigation water is needed, fertilizer should be spread, or weeds cleared. Because the key constraints on raising agricultural output are highly heterogeneous and geographically dispersed, only household decisions that are equally decentralized can optimize the use of these resources. Rural households are often poor, but they are also efficient (Schultz 1964). Communal or collective decision making with respect to agricultural production cannot achieve this high level of efficiency.

Placing more resources at the disposal of carefully calculating households usually leads to increases in production. If new technology and knowledge are required, a learning process will be needed, and an educated rural workforce speeds this process (Schultz 1975). But with proper incentives and access to resources, rural households can be counted on to gain maximum economic advantage from every unit of input. Large-scale firms, especially when operated by the state, seldom face such intense pressures to be efficient. Any growth strategy or economic reform that places a greater share of

economic resources and decision-making authority in the hands of rural households and enterprises will inevitably increase the efficiency of resource allocation for the whole economy.

Low Opportunity-Cost of Household Resources

Because poor countries typically make so few investments in rural areas, substantial human resources are underutilized. Short work days at formal jobs, disguised unemployment, and long hours spent on low-productivity tasks suggest that the marginal productivity of rural labor is often very low, perhaps near zero in certain off-seasons in the agricultural calendar. In circumstances in which access to the market for wage labor is constrained by demand, households quite rationally use family labor for tasks whose marginal productivity is quite low. Their goal is to maximize total production for shared consumption by the entire household, not to equate marginal productivity with the market wage, especially when the wage is not reliably available.

In such circumstances, accessible resources are used intensively. The marginal productivity of new resources is very high, whether capital to build local irrigation systems or rural roads, new agricultural technology that raises yields, or simply more income in the hands of rural households to spend and invest where they find the highest returns. Placing more income in the hands of poor households, with the expectation that productive investments will result, is often seen by government officials as hopelessly wasteful. When the prevailing development model argues that only modern factories are productive, such an attitude is understandable. But when the development model argues that improving total factor productivity is the route to rapid economic growth, investments that mobilize underutilized resources are very attractive.

Poor Financial Intermediation and Uncounted Investment

The robust relationship between agricultural growth and improvements in total factor productivity or growth in the nonagricultural economy arises partly because of a statistical artifact. Virtually none of the savings done within rural households is captured in national income accounts. Because there are so few financial intermediaries in rural areas, savings by farm households are either held as liquid but nonproductive assets, such as gold or jewelry, or they are invested in nonliquid but productive assets, such as livestock, orchards, land improvement, farm implements, or even education.

No serious problems arise from omitting, in the national income accounts', the rural savings that flow into gold, at least from the point of view of growth accounting. Only "productive" capital is relevant as a source of growth, and "unproductive" capital such as jewelry or gold can safely be included as consumption. But what if the rural economy is dynamic and attractive, at the level of individual households, as a place to invest? Higher incomes to rural households can then be channeled into productive investments on the farm or in the local economy, even though financial intermediaries are totally absent. Greater output results and this output does show up in national income. To statisticians attempting to account for this growth, it appears to be generated with little or no capital, a

very efficient process indeed. Of course, capital is used, and proper accounting would identify and measure it. But such accounting would also involve a fundamental shift in attitudes about the productivity of very small and highly dispersed rural investments, as well as about the savings propensity of rural households-and thus the desirability of allowing them to have higher incomes. Countries that stimulate higher farm incomes and encourage rural investments reap a statistical reward: the measurement of higher total factor productivity as a contributor to their rapid growth.

In most developing countries, a historically prolonged and deep urban bias has led to a distorted pattern of investment (Lipton 1977, 1993). Typically, too much public and private capital is invested in urban areas and too little in rural areas. Too much capital is held as liquid and nonproductive investments that rural households use to manage risk. Too little capital is invested in raising rural productivity.

Such distortions result in strikingly different marginal productivities of capital in the two sectors. A growth strategy that alters investment priorities in favor of rural growth should reap benefits from this disequilibrium in rates of return, at least initially. Such a switch in investment strategy and improved rates of return on capital would increase total factor productivity because of improved efficiency in resource allocation.

AGRICULTURE AND POVERTY ALLEVIATION: A STRATEGIC APPROACH

The record from Asia demonstrates the importance of the agricultural sector in stimulating economic growth and thus in alleviating poverty, but it also highlights a short-run tradeoff between helping the poor with low food prices and generating jobs for them in rural areas through agricultural incentives. Because of direct access on the part of small farmers, an increase in domestic food production is very important in raising caloric intake-a tangible marker of reductions in poverty-and also in stimulating a healthy rural economy.

Several dimensions of poverty do not respond quickly to increases in per capita income, even among the poor. To deal with these problems, the government must intervene to design and fund additional mechanisms. For example, infant mortality rates are reduced only slowly through economic growth; an aggressive immunization program works much faster. The relatively weak impact of economic growth on poverty alleviation in the short run has been demonstrated repeatedly. And yet the importance of a dynamic economy to create jobs and raise wages is equally clear.

The government has two important tasks to accelerate progress against poverty: a poverty-oriented strategy of economic growth; and a set of initiatives to provide effective anti-poverty programs. Figure 3 summarizes the key elements in each of these categories. There are no surprises. The difficult tasks are to articulate the overall strategy within the government and to the people, to coordinate the implementation of policies for growth with the local initiatives needed to make anti-poverty programs work better, and to find the extra resources that will permit adequate funding of these programs.

Rapid Economic Growth

... for greatest impact on poverty, it should be targeted to ...

Sectors		Regions	
Smallholder Agriculture	Labor-Intensive Manufacturing	Infrastructure and Technology in the North and Central Highlands	Regions with Poor Resources
Construction			

Anti-Poverty Programs

... can have an impact on growth as well as poverty, but need ...

Better Procedures	More Resources for Basic Welfare
Better targeting regionally	Better Primary Education
Better local control over resources	Better access to health care
Better local administration and leadership	Targeted Food Programs

Figure 3. A Strategy for Poverty Alleviation

The Importance of Rapid Growth to Poverty Alleviation

If the development profession did not understand the importance of rapid economic growth in the alleviation of poverty in the 1960s and 1970s, it certainly understands it in the 1990s. But not all development strategies alleviate poverty even when the economy is growing. Analysis of experiences in many other countries suggests that a development strategy - in addition to sound monetary and fiscal policies with a market-determined exchange rate - must have two separate and explicit components if the strategy is to have the greatest impact on reducing poverty.

First, the strategy must focus investments and incentives on the right sectors, especially on smallholder agriculture, construction, and labor-intensive manufacturing. In Indonesia, for example, the rice sector on Java and the treecrop sector off-Java have been instrumental in generating dynamic rural economies which have increased real wages. These wages provide the most important route out of poverty. There is an important distinction between public and private roles in poverty alleviation. Creating the jobs that cause real wages to rise over time is overwhelmingly a task for the private sector.

Second, the public sector has the responsibility for an investment strategy that will devote substantial resources to infrastructural development in regions with lagging economies. In the south of Vietnam, this means efforts to connect less advantaged provinces and districts to the more vibrant economy of Ho Chi Minh City. In the Central Highlands and

the North, investments in infrastructure must be accelerated while new technologies for agricultural growth are developed. Wherever economic potential is very low, whatever the location, opportunities for migration must be created, especially through effective schooling.

The Role of Agriculture in Managing Food Demand and Price Stabilization

Reducing poverty involves three dimensions, two short run and one long run. The first short-run issue addresses ways to increase the welfare level of the poor through direct provision of goods and services. The second short-run concern is for mechanisms to stabilize the consumption levels of the poor, especially food intake, when prices and incomes change due to weather, macroeconomic fluctuations, or household misfortune. The long-run issue addresses the growth and sustainability of the economic base that finances these improvements, both at the household and the national level

Agriculture plays an especially important, perhaps unique, role in integrating the short-run and long-run dimensions of poverty alleviation in the context of a strategy for economic growth. This role is not well understood, however. There is a tendency to treat the two short-run and the long-run issues separately for policy purposes, especially in planning food subsidies. These subsidies are often used to raise food intake in the short run, but this effort is usually thwarted by large fiscal deficits and declining levels of domestic food production.

Raising the level of food intake among the poor in the short run is often seen as the task of food price subsidies, ration shops, and food-for-work projects. Stabilization requires commodity-oriented price stabilization programs, investments in irrigation and crop diversification, and macroeconomic management that minimizes the impact of global fluctuations on the domestic economy. Gradual improvements in dietary quality, important for better nutrition and higher standards of health, come primarily from higher household incomes and education levels. These markers are closely correlated with long-run economic growth.

Managing these three dimensions of food demand is the single most important task in a successful strategy that links economic growth to rapid alleviation of poverty. Moreover, the three dimensions are themselves connected. A policy focus on anyone dimension, without commensurate progress on the other two, would ultimately be unsuccessful. At one level, this argument is merely a restatement of the central thesis of Food Policy Analysis, a volume whose initial drafts are more than a decade old (Timmer, et al. 1983). But the need for both supply and demand issues to be treated simultaneously, and in their appropriate macroeconomic setting, simply reflects the importance of active management of demand for food as a crucial link between economic growth and poverty alleviation.

Sectoral Issues

The most cost-effective way to deal with poverty is to create new jobs for the poor as quickly as possible. By and large, these jobs will not be in the modern industrial sector,

especially in view of the drastic restructuring needed to bring Vietnam's industrial plant and equipment to competitive standards. Indeed, up to the late 1998 this restructuring of industry is likely to add to unemployment and poverty, not help alleviate it.

The more promising arena for rapid job creation is in the rural economy. Capital-output ratios are much lower for small-scale, agro-processing activities, the rural-based industries producing household goods, and the service economy, which has been so neglected under socialist planning. Most of the demand for these goods and services, however, must come from rural households themselves, thus reinforcing the strategic orientation on stimulating rural productivity and incomes. This rural-oriented strategy has both growth and poverty dimensions, and consistency requires that both be integrated into the actual policy design and implementation. Without a successful effort to stimulate many new jobs in rural areas the growth dimension alone would quickly run out of domestic buying power and leave export-oriented regions substantially better off than those areas specializing in production of goods and services for domestic markets. Job creation in the rural economy is the centerpiece of the strategy to eliminate poverty.

Program Issues

No matter how effective the economic growth strategy is in stimulating rural dynamism and higher wages, not all regions, villages, and households will share equally in the opportunities created by growth. Experience in Europe, the United States, East Asia, and developing countries around the world confirms that economic growth is inherently an unequal process. Part of this inequality can be countered with fairly equal access to land, good economic policy, and targeted investments. But the rest must be the target of anti-poverty programs designed specifically to reach the people left behind by the growth process. In addition, just as the right economic development strategy can reduce poverty quickly, the right kind of programs to alleviate poverty can contribute to economic growth. In particular, investments in infrastructure, agricultural technology, health care, and education all lead to higher rates of economic growth in the long run.

Public Health

A major source of Vietnam's long-run competitive advantage is the depth and quality of its human capital. Good nutritional Status generated by equitable access to food is an important component of human capital, but other dimensions of health and a wide range of skills are also key ingredients. Personal decisions based on family circumstances account for most investments in health and education, but the role of the public sector in providing access to basic health care and schooling is acknowledged throughout the world.

Building an effective public health system is expensive, even when it concentrates on primary care in rural clinics, immunizations against the most common childhood diseases, and motherhood training in oral rehydration therapy for treating infant diarrheas, the most prevalent cause of high infant mortality rates. As public finances permit, however, such a concentration of strategy and resources is the most effective way

of improving the public health. National leaders have an understandable desire to provide urban residents (and themselves) with world-class hospital facilities and the best that curative medicine has to offer. Within a limited health budget, however, an urban health strategy focused on hospital care quickly preempts the resources needed for a broader public health strategy focused on preventive measures in rural areas. Providing health care to rural populations not only improves their welfare but also makes rural areas safer and more inviting places to live. Rural entrepreneurs, educated workers, and skilled craftsmen find greater satisfaction in staying in the villages, thus stimulating the longer-run dynamism of the rural economy.

Education

A similar rural-oriented strategy holds for investments in education. Vietnam needs highly skilled scientists and technicians, to be sure, and these people can be trained only in advanced universities and technical institutes. But much of this training for the next decade or two can be done in foreign settings, especially when the trade blockade is lifted and Vietnamese are again able to study in western institutions. Most public monies spent on education must be devoted to improving basic literacy and work skills for the population at large. Perhaps the most important educational skill the poor can learn is the capacity itself to learn. Most jobs require significant "learning by doing" in the workplace, and these acquired job skills become a worker's most valuable asset. Work-study programs, often involving small businesses, can be an effective mechanism for providing job skills.

Preparing all students to be receptive learners on the job is the basic task of public education, and the better prepared can be preferentially employed. The desirability of targeting educational resources to poor families is not in question; appropriate training in public schools may be the surest route out of poverty.

Targeted Food Subsidies

According to reports by the government and international agencies, the nutritional status of the Vietnamese population is "extremely low and the resulting degradation of human capital accordingly serious. Nutritional improvement should therefore be a central objective of development strategy³. Earlier surveys indicated a high prevalence of protein-energy malnutrition, endemic goiter, iron-deficiency anemia, vitamin A deficiency, and other micronutrient deficiencies. The nutritional status is poorest in the northern and central coastal regions and in hilly and mountainous areas. The severity of the problem is a clear consequence of the availability of food, both in quality and quantity, to the local people, and their access to it.

One major attraction of socialist distribution mechanisms is their attempt at egalitarian access to basic goods and services, especially food. Although a switch to market-oriented

³ See "Viet Nam: Agricultural and Food Production Sector Review," Draft Mission Report DD, DP/VIE/88/033 of the United Nations Development Program, the Food and Agriculture Organization of the United Nations, and the World Bank (Hanoi State Planning Commission 1989)

allocation of resources would speed economic growth, markets do not guarantee equal access to the broader array of goods and services produced. In the early stages of the switch, before new jobs provide secure wage income to all those able to work, a sharp skewing of incomes and food intake can result in visible hunger and poverty. A growth strategy with a focus on poverty alleviation should seek to ameliorate the welfare consequences of this skewing in the short run by targeting food resources to the poor. In the long run, the economy itself should provide access to employment and incomes for all able-bodied citizens, and all that is required directly from the government is a "safety net" for the ill, aged, and state pensioners. Such a social policy has only a minor food component and would depend much more on public health and social security measures.

In the short run, ensuring adequate food intake by the poor has three basic components: pricing policies for basic foods; targeted subsidies, either of income or food, directly to the poor; and mechanisms to ensure access to resources by the poor in order to enhance their productivity and incomes. Once the transformation of the rural economy to market-oriented resource allocations is well under way, there is relatively little scope to use food prices to target purchasing power of the poor. Vietnam is a sizable exporter of rice, and the price it receives from the world market is passed directly through the marketing chain back to farmers and consumers. This f.o.b. export price is always lower than a c.i.f. import price, thus favoring consumers and lowering the incomes of rice farmers. Indeed, the switch from import to export status reflects a transfer of roughly US \$30 per metric ton from producers to consumers, or perhaps a 20 percent decline in farm price and income in an environment of market-determined prices. No further depression of rice prices on behalf of consumers at the expense of producers is possible if the rural economy is expected to lead the growth process.

This rural growth process is the ultimate source of food security of the poor, even in urban areas, because it stimulates demand for unskilled labor and raises real wages. But this process takes time, especially because the restructuring of urban industry causes more unemployment in the immediate future. Short-run mechanisms to ensure that the poor have access to food are needed to avoid significant problems of hunger and malnutrition. Only programs with carefully targeted delivery systems can fulfill this need without threatening the incentives needed for the rural economy to grow or placing impossible burdens on the budgets of national and local authorities.

Targeting food to the needy is a complicated task, and no single mechanism has proven to be cost-effective in all circumstances. The use of multiple, intersecting criteria and programs is usually necessary. Food stamps can be delivered at maternal and child health clinics for children whose growth shows signs of stunting. In low-income urban districts, "fair price" shops can be established in which only low-quality rice or non-preferred food staples such as cassava or sorghum are available. Low-quality rice might be used to fund reforestation programs and rural public works in isolated areas. Such programs are complicated to design and administer, and they use scarce bureaucratic resources as well as money.

These interventions must be carefully targeted, provide food relief in kind, and be locally managed to ensure that recipients are known to be deserving by the community. Although Vietnam has a good record of managing local resources, external assistance can also be very helpful with these endeavors. The trade embargo does not prevent humanitarian assistance from being delivered to Vietnam, and several international private voluntary organizations have the capacity to finance and manage local food and nutrition programs. In addition, UNICEF, the World Food Programme, Australian, Scandinavian, and European Community food aid can provide the direct resources needed to make these programs effective. When major western donors also begin operations in Vietnam, there will be an opportunity to use their wide experience with targeting food assistance to poor regions and vulnerable populations. When well managed, such targeted programs have repeatedly demonstrated a high cost-effectiveness in alleviating the short-run consequences of poverty.

Whether Vietnam can afford even modest investments in the nutritional well being of its poor during the difficult period of economic restructuring is a matter for political debate (and possibly donor willingness to assist). Whatever the outcome of this debate, however, its focus must be clear. Vietnam cannot afford economy wide subsidies to food consumers, whether directly from the national budget or indirectly through a price policy that taxes farmers. The rural economy must be provided the resources to grow, and only consumers can provide the appropriate signals about what should be produced and the cash to back up their demand.

THE APPROPRIATE ROLE FOR GOVERNMENT

The debate over the role of agriculture in the process of economic development, and what the government should do to stimulate that role, has both economic and political roots of considerable depth. If the role of agriculture is passive, as early development theorists argued, requiring only gradual transfers of capital and labor to the industrial sector, the government's role in the agricultural sector can be minimal or even discriminatory, through heavy taxation. If agriculture plays a more positive role in stimulating growth in other sectors, but needs to grow rapidly itself for the stimulation to be effective, as Reynolds (1975) suggests, the government's role may need to be more active. Providing modern technology and rural infrastructure would be minimum tasks of government in order for a market-oriented economy to make efficient investments. A third possibility is that governments might need to intervene much more actively into agricultural development if non-market growth linkages are stimulated by rapid growth of agricultural income, and poverty alleviation is not fast enough under a free market approach.

How do countries determine which role for agriculture is appropriate for their circumstances, and how do they learn to carry out the government activities that support that role? No textbook has the answer to these questions; each country must do most of its own learning. But the Asian record suggests that governments learn their appropriate role in the development process first and most efficiently by learning how to design and implement agricultural development strategies that reach small farmers with rural

infrastructure, new technology, modern inputs, and stable, profitable prices. Although development programs for most agricultural commodities produced by smallholders probably offer the potential for government learning, the historical record suggests that concerns for food security, particularly in large Asian countries that are vulnerable to an unstable world rice market, have been the main stimulus to government learning. An argument can also be made that high petroleum prices in the 1970s forced countries to learn how to stimulate agricultural exports, thus reducing part of the substantial urban bias that existed until then (Timmer 1984).

A number of roles for the Vietnamese government will be important in linking agriculture, economic growth, and poverty alleviation: development of a strategy for poverty alleviation, maintenance of a growth-oriented macroeconomic environment investment in agricultural technology and rural infrastructure, including irrigation, at levels that call forth private investments in the rural economy; and development of the physical and institutional foundations for a competitive market economy, including a free flow of information, rapid communications, and effective policies to lower transactions costs, especially transportation costs.

Designing a Policy for Poverty Alleviation

There are four basic components to any successful strategy of poverty alleviation, and the government plays an important role in each: rapid growth; sectoral targeting; regional investments; and antipoverty programs that reach poor people directly with public services, such as health care and primary education. To promote the rest of these, the country must have a national policy framework for stimulating and maintaining economic growth. This framework will include the standard macroeconomic approaches: fiscal and monetary policies that keep the rate of inflation low; a competitive exchange rate that stimulates exports; investments in basic public infrastructure that "crowds in" private investment and some visible commitment to food security, usually through a program that stabilizes the price of basic food for both producers and consumers. This entire framework is built on a foundation of private property rights and a market economy.

It is nearly impossible for a country to operate within this framework for long periods of time, no matter what the speed of economic growth, if substantial number of people remain visibly in poverty. For greater impact on poverty alleviation, the growth strategy should be targeted to particular sectors whose development reaches the poor most effectively and to backward regions where large numbers of poor people live. Experience in several countries with excellent records of poverty alleviation has identified the key sectors that should receive special priority: smallholder agriculture, especially food crops, because of the double impact of higher productivity on rural incomes and food availability; labor-intensive construction because of the unskilled jobs created; small-scale rural financial services because of the large multiplier effects from new enterprises started; and ultimately, export-oriented manufacturing as the long-run vehicle for absorbing large quantities of labor at progressively higher real wages.

In the early stages, agriculture is the key to poverty alleviation. In virtually every developing country, an additional dollar of GDP created in the agricultural sector would have a significantly larger impact on the alleviation of poverty than an equal dollar earned elsewhere in the economy. The fact that it is often far cheaper to create the dollar of GDP in the rural sector than in industry makes poverty alleviation a bargain in the process of economic growth.

The same is often not true for regional targeting. Regions with a high proportion of people below a poverty line are usually poor in resources, not connected well to national or international markets, or suffer from political or ethnic discrimination. Investments in infrastructure and technology suited to these difficult environments are usually not cheap. Indeed, in many circumstances, migration of the poor to locations with better job opportunities would in the long run be their best route out of poverty. Wherever there are opportunities to raise productivity, however, they will often be found in the agricultural sector - if appropriate research is done to provide new technologies.

In the short run, anti-poverty programs can have a significant impact on the welfare of the poor. If designed and funded properly, many of these programs can also contribute to raising the productivity of the poor. Public health and education programs, family planning and child-feeding programs, and public investments in clean water and sanitation often have high economic returns as well as an immediate impact on poverty. Because of previous neglect, the returns are almost always highest in the rural areas.

Macroeconomic Policy

For government policy to stimulate agriculture, it must be set in a broad context that includes macroeconomic and international trade policies. It must promote an export orientation through a competitive exchange rate and a long-term investment horizon through stable macro prices. For example, in a country as poor as Vietnam, most agricultural prices must be determined by conditions in world markets. The exchange rate for the dong is thus the single most important price to influence decisions by Vietnamese farmers, traders, and consumers. Controlling inflation is important in its own right, but low inflation rates also make it easier to maintain an export oriented exchange rate.

Fiscal Policy and Inflation

Controlling inflation is essential to sustained growth. Rapid inflation shortens the time horizon of investors and encourages unproductive speculation. It raises risks by confusing the allocative signals in market prices. Inflation makes the development of sound financial intermediaries in rural and urban areas nearly impossible.

The fiscal austerity that is the primary instrument for maintaining control over inflation has high costs, however. The budgetary needs of the government are great. The most severe poverty seems to be among government pensioners and civil servants, including teachers and rural health workers. Nearly all of the country's infrastructure needs to be

rebuilt or modernized. Large foreign debts must be serviced. Where will the money come from?

Countries that are the major success stories of East and Southeast Asia faced similar problems. But South Korea and Taiwan had access to very large flows of foreign aid and military assistance in the early stages of their development, thus alleviating to a significant extent the pressures on domestic resource mobilization. Indonesia, Malaysia, and Thailand had substantial exports of natural resources that generated tax revenues, especially oil in Indonesia, rubber in Malaysia, and rice in Thailand. It is worth noting that two of the fastest growing economies in the region, Singapore and Hong Kong, did not have access to either foreign aid or exports of natural resources, but neither did they have to make substantial investments in rural infrastructure and an agricultural research and extension system capable of modernizing a backward agricultural economy.

Vietnam faces the prospect of controlling inflation and servicing its external debt without the resources that neighboring countries have been able to mobilize to keep the growth process under way. Agriculture must make a sizable contribution to closing this resource gap, but great care must be taken to have the growth process well under way in the rural areas before direct taxation and pricing policy are used to divert resources to public uses outside of agriculture. Investing now would pay far higher returns than would heavy, immediate taxation of agriculture. For Vietnamese policy makers, it is tempting to make more intensive use of the tax base that is already established - in the form of taxes on land and taxes on agricultural exports, including rice - as it would be the easiest way to increase government revenues. But important opportunities for growth would be sacrificed if agriculture is over-taxed at this crucial juncture.

Macro Prices and the Exchange Rate

Vietnam has established a much more favorable macro price environment than existed prior to 1999. When real interest rates are positive, wages are low, reflecting the abundance of labor, inflation is under control, and the exchange rate freely reflects the scarcity of foreign currency, the Vietnamese economy can grow rapidly. Especially in the rural sector, institutional changes and a return to household decision making have permitted very rapid response to new incentives.

But maintaining these macro prices at market levels is difficult. Financing the deficit through accommodative monetary policy undermines real interest rates. Efforts to reduce the burden of servicing the foreign debt by preventing depreciation of the dong at the rate of inflation immediately threatens agricultural exports and leads to administrative controls on imports. Maintaining a favorable macro price environment involves substantial risks and requires tough determination. The rural economy has an enormous stake in this maintenance, however, the growth strategy based on rapidly rising productivity in agriculture and rural industry is threatened without this supportive macroeconomic environment.

Investment Strategy

It is widely agreed that governments should invest in public goods and correct important market failures in order for market-oriented economies to function efficiently. The debate is over levels of funding, appropriate institutional organization, and relative roles for public agencies and private firms and households. The major focus in stimulating agricultural development is on government support and organization for research, irrigation, and the infrastructure that supports rural marketing⁴.

Agricultural Research

The public good aspects of agricultural research have been recognized by governments for centuries, well before economists provided a formal analytical rationale for the widespread public support to improving agricultural technology. Optimal incentives to private firms to invest in the discovery of new technology require that the new income streams generated be appropriable to a significant degree by the firm incurring the costs of research. Although hybrid seeds with secret inbred lines, patented chemical formulae, or specific brand-name farm implements meet this criteria and are consequently activities of the private sector in developed countries, most technology for food grains, livestock, and Inputs falls outside this category. The inability of private firms to capture more than a tiny fraction of the increased financial flows made possible by innovations in these commodities means that research activity by them will be quite small unless directly funded (and probably carried out) by the public sector.

The absolute necessity for new technologies to generate higher income streams for traditional farmers was stressed by Schultz (1964), who set out the analytical foundations for an entirely new approach to agricultural development. It is only in those countries with the capacity to fund and conduct the agricultural research which yields these new technologies that agricultural development can take place at a rapid enough pace for the sector to play its broader role in stimulating the entire development process. As argued by Barker (1993), building this capacity by funding scientific research deserves very high priority.

Investment in Irrigation

Large-scale irrigation schemes are almost always a public-sector activity, and they are often controversial. Concerns raised about the public health and environmental impact of many irrigation facilities. Diversion of water from natural flows inevitably has some consequence for the environment. Including the potential for downstream salinity problems, the creation of breeding grounds for such public-health hazards as schistosomes and malaria mosquitoes, and depletion of underground aquifers that may be important water sources some distance away,

⁴ Issues in this section are discussed in more detail in Timmer (1991, pp. 6 - 15).

These externalities should in principle be included in the evaluation of costs and benefits to the public-sector irrigation project. Indeed, the presence of such important externalities is a major reason why large-scale irrigation projects "should" be a public-sector activity. But the actual track record of incorporating environmental and public health costs into the design and evaluation of irrigation projects is dismal indeed, whether the projects were funded by external donors such as the World Bank or came directly from the country's own budget.

At a more grass-roots level several issues exist with respect to water pricing. Simple concerns for allocative efficiency suggest that farmers should pay some type of fee related to the volume of water they use and the economic cost of delivering or replacing it. Bureaucratic efficiency in operation and maintenance of irrigation facilities by public-sector employees suggests that the fees paid by farmers should also be connected to the timeliness of water deliveries and the quality of water services. And a broader concern for the integrity of public sector budgets suggests that full cost recovery from beneficiaries of public-sector irrigation projects is needed to provide the resources for continued investments.

Virtually none of these private charges are actually paid. Most countries have provided irrigation water free (or at modest fixed charges) to farmers, and both investment costs and operations and maintenance charges are paid out of the budget of the central government (or sometimes by state or regional authorities). As a consequence, actual budgets for operations and maintenance are usually seriously inadequate even for an efficient bureaucracy. More important, there are no incentives to perform the operations and maintenance activities in a timely and effective manner, and most irrigation systems need complete rehabilitation well before their economic and technical designs would indicate. Investment costs are then spread much more thinly than is necessary, thus slowing the expansion of agricultural output. Investments need to be made for improving the capacity of the public sector to design, finance, and manage irrigation programs.

Development of a Market Economy

Substantial progress has already been made in opening the rural economy of Vietnam to private trade. The effects have been quite visible: greater availability of fertilizer and other agricultural inputs, at least close to cities and major transportation routes, and more opportunity for farmers to market their agricultural produce. At least part of the remarkable surge in rice exports since 1989 can be attributed to the willingness and capacity of the private marketing sector to accumulate supplies from farmers and to store, transport, and process them before shipping to overseas customers.

Despite this success, the capacity of the private marketing sector is limited, their facilities are primitive, and many rural regions remain relatively untouched by the opportunities that a dynamic market economy should stimulate. To reach their potential, further steps and market reforms are needed in three areas: improved communications facilities and rural infrastructure; an effective competition policy that regulates monopolistic practices among traders; and establishment of the infrastructure for a rural financial system that

would provide short-term liquidity credits to traders (and farmers), investment credits to rice millers, trucking companies, and other market participants willing to invest in rural infrastructure, and a secure home for rural savings.

Communications and Marketing Costs

Low marketing costs are the secret to narrow margins between farmers and consumers, foreign or domestic. Marketing costs include transportation, storage, and processing, as well as the costs of searching out information on available supplies and potential markets and the risks involved in buying in one time and place and selling in another. When marketing costs are high and farmers are receiving low prices while consumers are paying high prices, part of the reason can be attributed to such factors as high costs of gasoline, trucks, and highway travel, high interest for liquidity credit, and antiquated processing facilities with poor recovery rates. These real and visible costs of marketing can be brought down only through investment in rural infrastructure and facilities along with commensurate investments in an improved rural credit system that can lower the real cost of capital to traders.

Part of the high marketing costs is invisible, however. The search for information about trading opportunities is crucial to the efficiency of price formation in market economies, but without reliable telephones, telexes, trade newspapers, and price information from central markets, this search is very haphazard, expensive, and subject to abuse. In particular, established families or networks of traders have a large advantage over new entrants, thus limiting competition, when information about market opportunities is not readily and cheaply available. Furthermore, the marketing of commodities is risky in a market economy because there is no guarantee that what is bought can ultimately be sold at a profit. In an economy such as Vietnam's, which has long been characterized by commodity shortages, the idea that surpluses could develop that could bankrupt traders holding stocks may seem unlikely or unimportant. In a market economy, however, prices must be free to go up and down, and traders, not the government, should face the risk of such price movements. But the risks are part of doing business and thus are part of the cost of marketing. The government should not eliminate these risks. To do so is to prevent the marketing sector from playing one of its most important allocative roles. But the government should not increase the risks either. Arbitrary and capricious price interventions by governments are one of the major risks of commodity trading in both developing and developed countries.

Beyond providing clear signals on its own pricing policies, the government has a key role to play in making market information widely available and in improving rural infrastructure to lower the physical costs of marketing. Systematic improvements in rural roads, availability of electricity and telephones, and docks port facilities have had to await new budgetary resources and a renewal of foreign assistance from the World Bank and other western donors. But some improvements require more coordination than money and some could draw on local revenues generated by increases in the tax base, which arise from improved agricultural productivity. Without doubt, the most important step the government can take to lower marketing costs and improve the efficiency of the

marketing system is to articulate clearly the policy itself and its determination to spread market information as widely and fairly as possible. A short-run investment strategy can then emerge automatically. Where marketing bottlenecks exist, margins are high. These locations can be readily identified by low farm prices (relative to other areas) and high consumer prices. After investigation, the cause of the high marketing margin can be identified and the road repaired, the ferry fixed, a bridge built, or additional competition brought into the market, possibly in the form of government offers to buy. The point emphasized here is that policy makers need to identify the most pressing problems and fix them rather than draw up a comprehensive plan to rehabilitate the country's entire rural infrastructure. Such a plan is needed when the budget can support the work. In the meantime, the emphasis must be on lowering the costs of marketing in the most pressing locations.

Competition Policy

Little is gained by turning over marketing activities from cumbersome, bureaucratic, public agencies to a private sector that uses monopolistic practices to restrict competition. In market economies the government is responsible for regulating the competitive environment by fostering easy entry for new firms and preventing restrictive practices by the established ones. In the transition from a socialist marketing system to a market-oriented system, avoiding excess market power in the hands of a few firms or families is not easy. The legal structure does not exist to use a regulatory approach, and even fostering easy entry to the marketing system by new firms may not be effective when access to credit is so restricted and the infrastructure, especially communications facilities and availability of information, is so limited. In this transition period, the government may need to set competitive standards by example, that is, by standing ready to buy and sell key commodities within a price range that reflects competitive costs of marketing. Both financial and administrative constraints on government marketing operations mean that activities have to be restricted to essential commodities only, perhaps only rice and fertilizer. Even for these commodities, the object is not for the government to establish its marketing agency as a monopolist, but to serve as a competitive standard to prevent monopolistic abuses by the nascent private sector. Within a decade, competition policy should evolve to a regulatory approach, and direct interventions in marketing would then shrink to a minor role.

Marketing Infrastructure

After two decades of declining support in many Asian countries for public investment in the rural infrastructure that supports efficient marketing of agricultural commodities, the direct and indirect contributions of this infrastructure to rural growth and reductions in poverty are again being recognized⁵. The decline had been caused to some extent by tighter budgets in most developing countries, but sharp criticisms in the 1970s of the

⁵ See in particular recent research in Bangladesh carried out by the International Food Policy Research Institute (IFPRI) and the Bangladesh Institute of Development Studies reported in Ahmed and Hossain (1990) and Kumar (1988).

supposed failure of investments in rural infrastructure to reach the "poorest of the poor" also reoriented donor priorities toward meeting basic needs through rural development programs.

For a rural marketing system to work efficiently, an entire set of interlinked components must be in place and mesh relatively smoothly. These components include the following. The system needs farm to market roads, regional highways, railways, trucks and rolling stock. Communications networks involving telephones and radios improve information-gathering capacity. Rural areas need reliable supplies of electricity for lighting, to operate office equipment, and to power rural industries. Market centers and wholesale terminals need to be established with convenient access to both transport facilities and financial intermediaries. The government has to institute a set of accepted grades and standards for traded commodities which permit reliable "arms-length" contracts to be written and enforced at low cost.

Each individual component of a well-functioning marketing system has a major role for private-sector involvement, perhaps even to the exclusion of any necessary public role. Trucking companies, warehouse operators, and rural and regional banks can be entirely in the private sector, and, indeed, the empirical record suggests that they should be if reasonable efficiency standards are to be maintained. But a marketing system is more than the sum of these private firms, partly because the links that connect these firms—the roads, railways, telephone networks, and so on—have important public good dimensions or problems of coordination that markets alone have a difficult time solving. A further part of the story, however, involves substantial economies of scale and externalities in the construction and operation of the marketing system itself. No private firm can hope to capture the full economic benefits accruing to an efficient marketing system, even when the firm's own investment is a crucial component needed to make the system work at all.

The existence of these externalities and system-wide scale economies that are not appropriable by individual private firms creates an important role for the public sector in guaranteeing that the basic rural infrastructure is in place and operates efficiently. Direct public investment, ownership, and operation is neither necessary nor even desirable in many contexts. Regulation, indicative plans, and appropriate investment incentives may well be sufficient. But on the other hand, a direct public role may also be needed in many circumstances, especially in the building of roads, railroads, and communications networks.

Investment in infrastructure has several important economic payoffs. First, rural infrastructure, in the form of irrigation and drainage works, roads, ports and waterways, communications, electricity, and market facilities, provides the base on which an efficient rural economy is built. Much of the investment needed to provide this base comes from the public sector, even when the private sector is playing the predominate role in agricultural production and marketing. Without this public investment, rural infrastructure is seriously deficient in stimulating greater production of crops and livestock. Investment by the private sector is also less profitable in the absence of adequate rural infrastructure, thus further reducing rural dynamism.

Second, public-sector investment in rural areas has a "crowding in" effect rather than a "crowding out" effect on private investment, and for this reason the main role of investments in infrastructure is this longer-run stimulation of agricultural production, which has important positive effects on rural employment and income distribution.

Third, the investments in infrastructure themselves can generate substantial rural employment directly, and this potential has not been lost on planners seeking both long-run employment creation and short-run work programs to alleviate rural poverty or even famine conditions. "Food for Work" and "Employment Guarantee" schemes almost always are designed to build rural infrastructure using low-cost or unemployed workers. Large-scale irrigation and road construction projects offer the potential to employ vast numbers of unskilled rural laborers if project designers are sensitive to employment issues in the choice of technique and are willing to address the managerial problems that arise from labor-intensive techniques in construction.

Price Policy

"Getting prices right" is necessary for modernizing the agricultural sector, but price policy alone is not sufficient (Timmer 1986). Getting prices wrong, however, especially in the broader sense of distortions to the overall set of incentives facing farmers, traders, and consumers, can easily short-circuit the entire growth process. Particularly in the early stages of market reform under severe budgetary constraints, attention to price policy can pay high returns for relatively modest fiscal costs. Indeed, once productivity gains are established, pricing policy can be used to generate fiscal resources for reinvestment in rural infrastructure.

Perhaps the dominant lesson from development experience since the 1960s has been the importance of an "outward orientation" for economic strategy. For agriculture as well as for industry, world markets provide the most appropriate signals about the relative scarcity and abundance of individual commodities - and the desirability of producing and consuming them. Border prices - the price a country pays to import or receives from exporting a commodity-transmit these signals to domestic decision makers via the marketing system. As a starting point, countries restructuring their economies after decades of distortions induced by central planning and isolation from world markets should use border prices as a guide to production.

Vietnam has gone a step further. By actually opening up the economy to international trade in most commodities while keeping the exchange rate at a competitive level, the government has accelerated the restructuring. Market forces transmit border prices to Vietnamese decision makers, who are free to respond by importing or exporting. Unfortunately, the marketing system that transmits these signals is still very inefficient and costly. In addition, the institutional rules for determining the participants in international trade, the licenses and permits required, and the role of government officials are unclear. The risks and costs of trading are thereby raised, but the more serious effect is to dampen the efficiency with which price signals from world markets are transmitted

to Vietnamese farmers, traders, and consumers. Because quick responses to opportunities in these markets are an important source of growth for the entire economy, and especially the agricultural economy, the failure to transmit the appropriate signals are a major impediment to 'the growth process.

Rice prices are too important to farmers, consumers, and the macro economy to be left to the whims of an unstable world market. Real prices for rice have varied enormously since the early 1970 - by a factor of seven from the monthly average high in April 1974 to the monthly low in December 1986 (see Figure 4). Introducing such instability into the Vietnamese economy would place great burdens on consumers, who obtain roughly 60 percent of their food energy and protein from rice, and on producers, whose main source of income (low as it is) is the rice crop. The rice economy probably supports one-half of the employment in the country and contributes about one-sixth of national income. Preventing sharp fluctuations in price from destabilizing the domestic rice economy should have high priority.

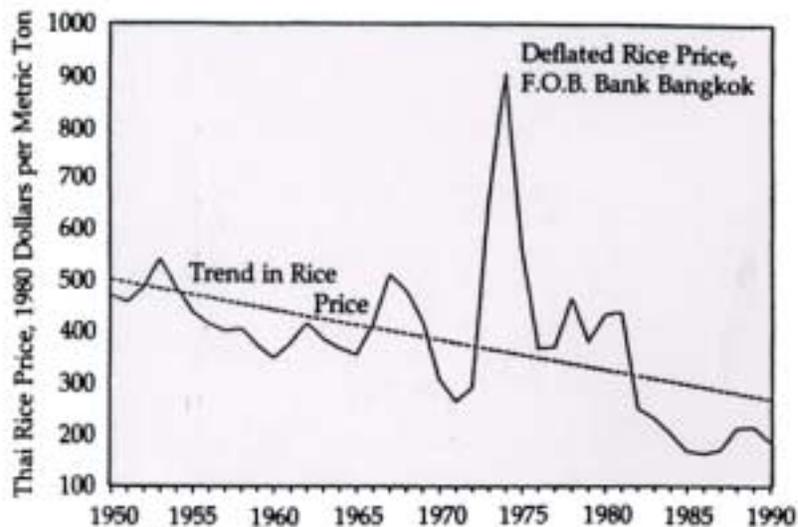


Figure 4. Trend in World Rice Price, 1950-1990

At the same time, the world rice market contains important information about the value of producing more rice. Vietnam is the world's third largest rice exporter and must take market conditions more or less as they are. Subsidies to rice farmers when world prices are extremely low, as in the mid-1980s, might be desirable on grounds of both equity and efficiency, but budget realities prevent their serious consideration. When world rice prices rise sharply, however, as they did in the mid-1970s, some protection for consumers are possible by taxing rice exports at a progressive rate, thus keeping domestic rice prices below world prices and generating budget revenues as well. Targeting some of the proceeds for reinvestment in the rural economy would help ease the burden on farmers and raise productivity in the future. A variable export tax on rice of from 3 to 10 percent, depending on the level of world rice prices, reflects an appropriate balance between the concern for revenues and stability on one hand and incentives to farmers on the other.

Apart from mechanisms to cope with these extremes in world rice prices, Vietnam's domestic rice prices must follow export prices, minus the necessary marketing margins between the farm gate and the f.o.b. price on board the export vessel. This export price is always below the equivalent import price, thus providing a significant bonus, perhaps 20 to 30 percent of the retail price, in the form of lower prices to consumers. The export price also forces farmers to compete directly with other efficient foreign producers (or with the subsidies from rich countries), increasing the importance of having access to cost-reducing technology and modern inputs needed to raise yields. A low-cost, efficient marketing system also enhances the ability of farmers to grow rice for export, especially for a country as geographically diverse as Vietnam.

Price policy for rice then has two components: following the world export price in most years, while investing to lower production and marketing costs; and preparing standby mechanisms to stabilize domestic prices if the world rice market suddenly experiences a serious shortage. Budget realities prevent a parallel effort to subsidize farmers in the face of a collapse in world rice prices, but investments to help them diversify cropping systems and to make the rural economy more flexible in response to changing market conditions would ease the burden of adjustment in this direction.

Most modern inputs for agricultural production are imported into Vietnam. The availability and cost of nitrogen fertilizer, the "fuel" for the efficient plant engine provided by high-yielding varieties, pesticides for occasional outbreaks of insects and diseases not controlled genetically or by natural predators, and gasoline and diesel fuel for the irrigation pumps depend on world prices and the exchange rate for the *dong*. In a market economy, if these inputs have high productivity, farmers are able to bid for the necessary foreign exchange to import supplies. In a bureaucratic distribution system, however, constrained by access to foreign exchange, agricultural inputs frequently fail to arrive where they are needed, on time, and in appropriate formulations and qualities.

Thus pricing policy for inputs also has two dimensions. First, although most countries try to subsidize fertilizer in the early stages of adoption to encourage farmers to experiment with new techniques, only a few countries have had the necessary budgetary resources to make such a policy a full success. With Vietnam's budget constraint, the pricing of fertilizer (and other inputs) has to reflect the full costs of importing at a market exchange rate (or the full costs of producing the inputs domestically).

Second, it is important to formulate a distribution policy that overcomes the significant problems of supplying enough inputs at the right time to farmers. The policies and investments designed to stimulate development of the private marketing system for agricultural output would also serve to develop the input supply industry. No Asian country has been able to modernize its agricultural sector while monopolizing the distribution of fertilizer, seeds, pesticides, and fuel. But no country has turned all of these tasks over to the private sector either. The search for appropriate roles for both the public and private sectors in input distribution requires time and careful appraisal of results. An approach that encourages each sector to compete with the other, rather than one that

divides up tasks into different controlled products and regions, would best serve farmer interests.

AGRICULTURE AND ECONOMIC DEVELOPMENT IN VIETNAM: NEXT STEPS

With more than three-quarters of the labor force working in the agricultural sector, Vietnam is primarily a rural society. Moreover, agro-processing is the single largest component of the industrial sector; nearly half of the total industrial work force is employed in either agro-processing or the textile industry. With the average Vietnamese household spending nearly two-thirds of its income on food, there is no doubt that the food and agricultural economy is the key to both welfare and economic growth for the rest of the 1990s.

In Vietnam as in other developing countries, the development strategy has traditionally squeezed agriculture to foster growth in industry. By providing the most important source of savings in the hands of the state, the agricultural sector served as a reservoir of resources. Agricultural savings arose from land taxes, direct taxes on exports, low agricultural prices, high prices for manufactured goods sold in the rural areas, and an overvalued domestic currency. In combination, these policies toward the agricultural sector kept wages low and imported inputs cheap for manufacturers, thus guaranteeing high profits from the industrial sector. Discrimination against the agricultural sector is revealed not simply as an urban bias, but as the core of the development process itself. Any efforts to help the agricultural sector would inevitably slow down the rate of economic growth.

Because of the pervasive influence of this basic approach to economic development, both market-oriented and centrally planned economies have systematically undervalued their agricultural sectors. But by eliminating private traders and a market-mediated process of price discovery, socialist economies imposed even heavier burdens on their farmers. Market-oriented reforms thus have greater scope for stimulating the rural economy, but they also must build on a much weaker institutional base. By integrating its agricultural sector into the price structure of world markets, in the context of an export oriented macroeconomic policy, Vietnam can begin to reverse this historic bias against agriculture and follow a more rapid and more equitable path of economic growth.

The market context in Vietnam is changing rapidly. While the legal status of merchants and traders has been established, their role remains in doubt until ancillary institutions and services are provided. It is essential to develop a competitive commercial structure, with access to communications (especially telephones and telexes), long-distance transportation facilities, and normal commercial infrastructure, which includes bonding arrangements, enforceable grades and standards, working capital, and long-term investment credits. Only such a structure can integrate different rural economies with each other, with urban markets, and with foreign buyers. It is easy to undervalue this commercial infrastructure and thus to underinvest in its development, both financially and in terms of institutional innovation. Marketing is the glue that holds an economy

together and generates the signals indicating what farmers should grow and what consumers can buy.

Learning from the experiences of other countries is especially valuable in the management of policy for the rural economy. For example, no Asian country permits free markets to determine its rice prices, and Vietnam would be foolish to be the first. And yet markets are crucial for the signals they send out on resource scarcity and consumer demand. Managing a price policy to create the stability necessary for efficient producer and consumer decision making, while reaping the efficiency needed from market signals, is one of the key tasks of an integrated food policy. A well-managed price policy, however, can serve as one of the few bridges available between the rigidity of a centrally planned system and a much more flexible, but less controlled, system of resource allocation according to market signals.

Vietnam's food security will depend on rice for many years. To guarantee continued adequacy of rice supplies for domestic consumers as well as for export, the government needs to make investments in new technology and rural infrastructure. These are crucial for maintaining competitive production costs and low marketing margins. The export surplus for rice that developed in the early 1990s is a welcome cushion, offering some flexibility in resource allocation. But investments in rice must be maintained to ensure Vietnam's food security beyond that.

The rural economy is selected as the focus for rapid growth because it is more flexible in the short run to new economic incentives, has significant untapped potential to increase productivity, and is the home of most of the country's citizens, including its poorest. No country, however, will get rich by focusing all its resources on agriculture, and eventually Vietnam must shift its attention to building a modern urban economy based on export-oriented industry and technology-based services. By then, however, the rural strategy will have reduced poverty and stimulated the development of a much more effective array of linkages from farms to rural industry and then to the urban economy. The rural economy will decline in relative importance, not out of neglect or heavy taxation but because its performance will have laid the foundations for the rest of the economy.

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