

**Fostering Global
Well-Being
A New Paradigm to Revitalize
Agricultural and Rural
Development**

David D. Bathrick

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**International Food Policy Research Institute
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Foreword

With international financial markets in disarray, economic growth has slowed in developing countries and the short-term prospects for development look poor. It is quite possible that growth trends will resume in the near future and that the effects of this crisis may appear non-existent by 2020. Nonetheless, at present, countries not only have to struggle through financial crisis, but they also have to confront the longer-term structural changes needed to benefit from globalization. If the effects of globalization are not understood and incorporated into policy-making, development opportunities in the next two decades will not be fully exploited.

In this paper, David Bathrick describes the almost revolutionary changes that have taken place in the economic arena in recent years. This is a story of paradigm shift, where government-led economic growth through the 1970s gave way to the increasingly market-led growth we see now. The emergence of the market in the context of globalization has meant the reduction of biases against agriculture; an emphasis on flexible responses in the production of goods and services; strengthened links between local, national, and international economies; greater integration of different sectors of the economy; and increased importance of the private sector.

Bathrick argues that this demand-driven setting is forcing developing countries to assess their comparative advantages in the global marketplace and make fundamental strategic, institutional, and programmatic shifts. The resulting opportunities for growth are considerable, but so is the effort and financial support required to acquire the skills, experiences, and infrastructure necessary to adjust to the new realities. Knowledge of consumer needs, up-to-date market intelligence, and other informational and material resources that facilitate the market system need to be identified and put in place.

The role of agriculture in the new global order must be central if broad-based growth is to occur. In a market-led environment, agriculture can help substantially in expanding trade and boosting income and employment, while reducing poverty and food insecurity. But Bathrick notes that most developing-country farmers are ill-prepared to respond adequately to the new challenges. With aggressive reforms, though, developing countries could facilitate greater efficiency and private investment in the agricultural sector.

To avoid confronting the demands of the global market will only lead to inefficient and socially and environmentally unsustainable growth. Developing countries will need to establish the basic fundamentals of success in this new era, both to weather the current crisis, but also to look to a sustainable future.

Per Pinstrup-Andersen
Director General

Acknowledgments

This paper is the product of a long and circuitous effort that has generated considerable observation and comment. While responsible for its content and conclusions I could not have accomplished this task without a large number of collaborators.

The initial phase of this paper was launched when the former president of the Association for International Agriculture and Rural Development (AIARD), Reed Hertford, concluded that given the rapidly changing nature of the international development agenda, AIARD should prepare a policy guidance paper. I am appreciative of his recommendation that I take on this task and his ever-present support and excellent critiques of the earlier drafts. AIARD's president, Susan Schram, maintained this same level of interest and support. Having access to AIARD members and receiving their comments during the formal presentations at the annual meeting, and similarly receiving comments at the Agricultural Research Institute's annual meeting, helped enormously to improve the product. The process, however, would not have progressed had not Per Pinstrup-Andersen seen the possible utility of this earlier paper as a contribution to IFPRI's 2020 Vision initiative. IFPRI's contract with my former employer, Chemonics International, made this manuscript possible.

The earlier interaction, support, and critical observations provided by Charles Antholt, Robert Blake, Ruben Echeverría, Donald Ferguson, Fred Mann, Alexander McCalla, Charles Riemenschneider, John Stovall, and Alexander von der Osten contributed considerably. In addition, special appreciation also belongs to Gary Alex and Kerry Byrnes. During the extremely stimulating IFPRI phase of this activity, I received important structural guidance from David Nygaard and Rajul Pandya-Lorch. Pandya-Lorch stayed the course from draft to final version, and without her enthusiastic support and intellectual direction, and also the thoughtful comments provided by the 2020 Vision external reviewers, this paper would not have materialized. A very special appreciation to her, along with the IFPRI editor, Uday Mohan, and graphics expert, Vicki Lee, who also provided additional typing. However, during this long period, where considerable off hours and weekends were also required, my wife, Elena, was constantly there and patiently encouraged me with the effort. To her, a very special appreciation is extended.

David Bathrick
Winrock International

1. Introduction

As the world prepares for the new millennium, all countries are trying quickly to adjust to changing needs within the increasingly mobile global marketplace. After years of biases against and general disinterest in the developing world's agricultural sector, due in part to inward-focused economic structures, global trade is now forcing poorer, agrarian-based economies to assess their natural comparative advantages and quickly adapt. Almost revolutionary policies, strategies, and structures are now required to meet the new challenges. While the view taken here is that the changes under way offer considerable new opportunities, it also recognizes that many producers and rural residents lack the relevant experiences, skills, and financial support to adjust to the new conditions. Addressing these daunting needs in a comprehensive framework becomes a critical activity for future global well-being. This theme forms the thrust of this paper.

Breaking from the recent past, agriculture increasingly has emerged as a leading economic sector. But its benefits are not as broadly based as could be the case. The majority of the small to medium producers and rural nonfarm families are poorly prepared to either gain the broader benefits of the changes in agriculture or respond to previously unknown competitors. Furthermore, distant, and possibly more efficient producers now have more opportunities to penetrate markets or expand market shares. Nevertheless, this paper contends that if developing countries aggressively take the initiative and make major internal structural reforms—providing capable small- and medium-sized farmers and agribusinesses with essential skills, tools, and infrastructure, and facilitating private investment—they will be better-suited to meet unprecedented challenges and achieve more sustainable growth in political, economic, and environmental terms. Conversely, if structural reforms are not made, stagnation will occur.

Paradoxically, the economic growth of developed countries is increasingly tied to expanding sales in developing countries, the same places that are having to make major adjustments. In this exceedingly complex and interconnected environment, it becomes essential for developing and developed countries to increase considerably their support for agriculture and the rural sector in the developing world.

In the context of major global shifts and the 2020 Vision mandate, this paper takes a “wide-lens snap” of a changing global dynamic. Its purposes are twofold: (1) to explain the emerging process in a way that stimulates high-level interest in and commitment to the agricultural sector, and (2) to provide policy and sector leaders with program guidance that will more directly spark farm and supportive off-farm enterprise transformations in a way that maximizes broad-based growth during the initial phases of the economic transformation beginning to occur in some countries. These two objectives are undertaken with some trepidation because the global process under way is admittedly complex and because limited data and experiences related to the economic transformation are available. Nonetheless, based on the analysis provided here, political leaders, donor agencies, business interests, and development professionals from all institutional bases hopefully will seize the moment and commence with debate, commensurate structural overhaul, and new program development.

To set the stage for an analysis of the opportunities available, the next chapter contrasts the old and new paradigms. It discusses the paradigm shifts sparked by economic, structural, and policy reforms brought about by expanding regional and global trade and the parallel rejuvenation of agriculture in some countries during the structural adjustment lending process. Chapter 3 discusses the opportunities and challenges presented by these shifts.

Chapter 4 makes the case for systematic change, and Chapter 5 describes the conceptual framework and program elements for a new paradigm based on “food and agroindustrial systems.”

The paper then places the various conclusions within the context of the evolving 2020 Vision initiative. Chapter 7 presents the overall conclusions.

2. Setting the Stage for the New Paradigm

In order to comprehend the magnitude of the changes under way, an overview and comparison of the overarching economic systems of the 1950s to 1970s and the 1990s is necessary. This chapter contrasts the old and the new economic paradigms, describes the transition between these paradigms, and discusses the new programmatic focus developed by international assistance donors during this period.

The centerpiece of the new paradigm is the rapid global shift from closed, nationally focused markets (protected and subsidized) to open, global markets (competitive and less subsidized).

Given this dramatic contrast, the new paradigm requires that radically different working premises and strategies be introduced quickly, particularly as these relate to the changing agricultural sector. In the context of declining government budgets, expanding national and global capital flows, changing geopolitical relationships, burgeoning new information technologies, and the prevailing attitude of donor “fatigue,” a program justification based on broader economic interests has considerable merit.

A Period of Inward-Focused Economies—1950s to 1970s

An Overview of the Old Paradigm

From the 1950s through the 1970s “import substitution” economic strategies prevailed in most developing countries. Formulated around the development of an urban, industrial production base serving limited national market needs, this strategy required overvalued exchange rates, inefficient price controls, protectionist measures, severe taxes, and a variety of subsidies to sustain it. Government planners promulgated centralized complementary strategies. In many instances, government or parastatal agencies directed productive services affecting industrial, utility, banking, and agricultural

services. The private sector as a dynamic investment force was frequently marginalized, while government organizations directly influenced capital mobilization and allocation.

Although this era saw an incredibly successful Green Revolution that generated bountiful harvests and some economic growth, the maximum contribution to development was seldom realized because of the overarching fiscal and investment policy framework. Over the years corrective adjustments became necessary, but because of pervasive systemic constraints, reform measures became increasingly difficult to introduce (Garrett 1997). Manufacturing and urban-based interests benefited from this system. Supported by political power, bureaucracies became entrenched. Entrepreneurs became increasingly complacent as competitive forces declined. By the 1970s, signs of economic fatigue and stress were common due to limited progress toward poverty alleviation, increased economic and social stagnation, high inflation rates, massive debt, and environmental degradation.

Negative Rural Bias

One inherent structural underpinning of the old paradigm was the shift in the terms of trade against agriculture relative to industries, manufacturing, and service sectors. Indirect taxes and overvalued exchange rates protected urban-based sectors, while constraining economic performance in the rural sector (Schuh and Junguito 1993; Ferroni and Valdés 1991).

This prevailing policy environment was further exacerbated by the introduction of a series of usually inefficient, supply-driven agricultural support programs. Parastatal services, for example, provided marketing and product distribution systems that usually used subsidized inputs from state credit agencies. These supply-driven activities focused on

production targets in support of national food self-sufficiency objectives. They usually precluded private-sector investment, more remunerative land uses, and rural-sector capital accumulation, and ignored national and international market efficiencies and competitiveness issues.

Seldom did significant benefits accrue to large numbers of small and medium producers; in fact, rural poverty was exacerbated. Export shipments began to decline, even in some traditional commodities, as sector investment stagnated and diversification became constrained. The result was “capital flight” from the agricultural sector by national and foreign investors and businesses (World Bank 1996a).

To document the cumulative effects of the increasingly negative rural terms of trade, a World Bank-financed study examined agricultural support policies from 1960 to 1984 in 18 representative countries. This study concluded that in the absence of such government intervention, relative producer prices for 26 commodities would have increased by 42 percent (Bautista and Valdés 1993). Because agriculture was usually the largest employer in these countries and the rural sector contained the largest grouping of absolutely poor people, pervasive government intervention constrained agriculture from making broader economic and social contributions.

Historically, agriculture’s growth in most countries (including that observed in early years in Japan, Europe, and North America) has served as the cost-effective catalyst for stimulating decentralized, broad-based economic growth and development (Mellor 1984). A dynamic agriculture generates considerable additional employment, income, and growth in both urban and rural areas through linkages to farm-related and nonfarm economies (Pinstrup-Andersen and Pandya-Lorch 1995). In the short term, agriculture’s contribution is essential because poor countries usually lack viable alternatives.

Focus of Donor Activities

While donors made major investments in some countries, they also provided governments with large levels of technical assistance and investment to develop their agricultural sectors and complementary rural development support services. During a period when many governments lacked the

needed institutional capacities, donors provided significant institutional development assistance. Over the long term, donors introduced to these governments a variety of experimental strategies and program foci concerning community development, basic human needs, food self-sufficiency, integrated rural development, and sustainable development (Delgado 1997). Many of these efforts supported national or regional agricultural research, extension, sector policy, credit services, and rural infrastructure. On the international scene, Green Revolution technologies for food crops were introduced via the research centers in the donor-supported Consultative Group on International Agricultural Research (CGIAR).

Transition Period Toward More Liberal Economic and Trade-Based Strategies—1980s

Overview of the “Economic Rationalization” Process

Years of an increasingly inefficient and inflexible economic structure driven in part by overvalued exchange rates, the accumulation of unmanageable debts, record high interest rates, and unprecedented inflation, required the introduction of structural overhauls and modifications. Further exacerbating the situation was the global energy crisis. As global economic trade stagnated, this period increasingly became known as the “lost decade” (Bautista 1993). However, in response to a series of adjustment shocks during the 1980s, the macro policy focus shifted toward stimulating private-sector investments and energizing markets, rather than preparing government agencies to “promote” investment directly. Lessons learned from more market-driven Asian economic strategies and the effects of some of the International Monetary Fund (IMF) and World Bank Structural Adjustment Loan (SAL) assistance programs began to spread. At the same time, complementary global and regional trade groupings expanded notably.

A comparison of East Asian economic performance with other developing countries during the 1970s and the 1980s shows that the annual average growth rates in East Asia were twice as high as those for low-, middle-, and even high-income

countries outside the region. During the 1980s, East Asia (and also South Asia) were the only groups to show that annual growth rates had increased in comparison to the earlier decade (see Table 1). East Asian countries introduced more favorable macro and market-oriented policies, reduced government spending, and encouraged foreign and national private-sector investment, all of which stimulated much faster gross domestic product (GDP), export, and agricultural growth rates during the 1970s and 80s (Bautista 1993; Economist 1996b).

Beginning in 1980, quick-disbursing, policy-based SALs to address short-term balance-of-payment needs and foreign reserve drains were introduced by the World Bank and the IMF. A flurry of macropolicy lending activities commenced, but these were seldom linked to sector-specific concerns. Given the need to address sectoral issues, the World Bank initiated Sectoral Adjustment Loans (SECALS), including Agriculture Sectoral Adjustment Loans (AGSECALS), in 1985. By 1993 structural adjustment spending totaled \$222 billion, averaging about 26 percent of World Bank lending (World Bank 1996b). These loans come with considerable emphasis on macropolicy reform, currency devaluation, public-sector “reform” via market liberalization and service privatization, economic macrostabilization, and trade policy reform (World Bank 1996b). AGSECALS, which have accounted for 12 percent of the World Bank’s adjustment lending, occurred mainly between 1985 and 1991, and these were gradually focused to complement macroeconomic shifts (World Bank 1996a).

Table 1—Average annual growth of real GDP by country groups, 1970–80 and 1980–90

Economic group	1970–80	1980–90
	(percent)	
High-income OECD members	3.3	2.9 ^a
Low- and middle-income economies	4.9	3.4
East Asia and Pacific	6.6	7.4
South Asia	3.2	5.3
Sub-Saharan Africa	2.8	2.0
Latin America and the Caribbean	5.8	1.2
Middle East and North Africa	3.5	3.5 ^a

Source: Calculated from annual growth rates in World Bank 1991.

^aFor 1980–89 only.

Reinforcing the macroeconomic, market-based reforms emphasized by the SAL program and observed increasingly throughout much of Asia, as well as some Latin American countries such as Chile and Colombia, were the expansion of regional and global trade agreements. By the early 1990s, 16 trade and economic groups had been organized in Africa, Asia, Latin America, and the Middle East (see Table 1 in DeRosa 1995). More than 60 developing countries unilaterally lowered their import tariffs, while also obtaining improved access to developed countries. Long-festering agricultural trade issues finally began to be addressed under the Agreement on Agriculture of the Uruguay Round, signed in 1994. This watershed agreement provided for (1) an average reduction in the tariff on all tropical products of 43 percent, (2) reduction of domestic production support measures in developed and developing countries, and (3) clarification and reduction of export subsidies (Safodi and Laird 1996).

These mutually supportive economic and trade reforms gradually accumulated to create a structural turning point. The stage was set for a new economic development paradigm. The consequences of this new economic world are still being studied. Macro-level data exist, but little sector-specific information is available.

According to a recent comprehensive assessment of major structural shifts beginning in the mid-1980s and subsequently accelerating, in most countries savings and investments have increased, inflation has decreased, foreign exchange rates have been stabilized, fiscal deficits reduced, and real interest rates established (World Bank 1996a). An environment for the mobilization of sizable private-sector resources now exists. Furthermore, a recent IMF report provides a revealing conclusion about this period:

Countries that align themselves with forces of globalization and embrace the reforms needed to do so, liberalizing markets and pursuing demand-led policies, are likely to put themselves on a path of convergence with the advanced economies, following the successful Asian newly industrialized economies. Countries that do not adapt such policies are likely to face declining shares of world trade and private capital flow, and to find themselves falling behind in relative terms (IMF 1997, 72).

While these initial macro interpretations offer positive signs, improving poverty and equity has been more elusive. While overall poverty levels have decreased, only about 60 percent of the countries that adopted open economic policies also reduced major income inequalities (World Bank 1996b). This is in part a consequence of declining government expenditures in critical poverty reduction areas, such as agriculture and rural development, during the SAL period (World Bank 1996b). At the same time, the new market-driven strategies and programs commensurate with the changing policy environment and the shifts toward a more competitive global marketplace have been slow to develop.

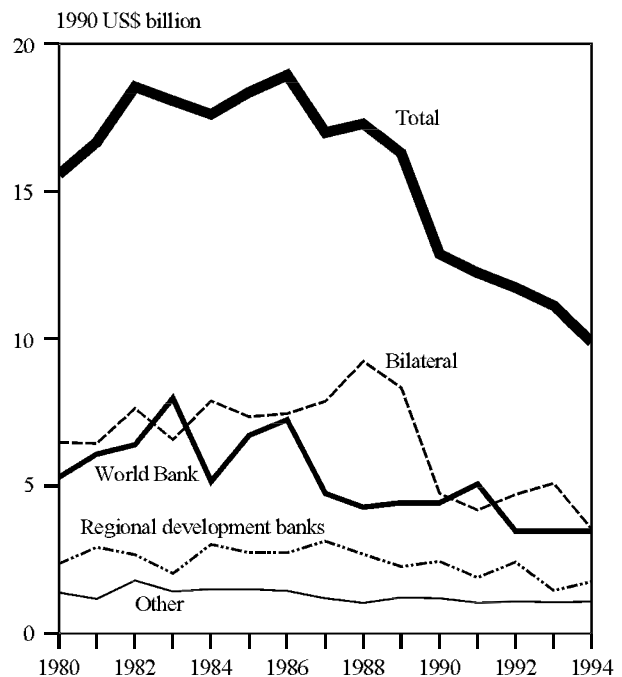
Donor Support

National-level public-sector spending priorities influence donor allocations. As developing countries made particularly tough budget cuts that affected agriculture, less donor assistance was directed to the agricultural sector. The World Bank's AGSECALS program, for example, declined from an average of 12 percent of the adjustment lending portfolio to 4 percent by 1991 (World Bank 1996a). Total World Bank agricultural sector lending declined by 50 percent from 1986 to 1996 (World Bank 1997b). Similar reductions occurred throughout the donor community (Figure 1).

These declines further decapitalized rural areas, which already suffered from low levels of investment. Given the crucial role that a dynamic agriculture has usually played in the early phases of economic development, which took between 75 and 100 years in North America and Europe, the gutting of essential investments was poorly timed (McCalla 1997). The long lead time required for structural retooling and capacity development, particularly in policy research and technology and market development, only complicated these matters.

What precipitated such dramatic reductions? Some explanations include (1) concerns by developed-country commodity leaders about competition; (2) declines in real grain prices that led to com-

Figure 1—External assistance to agriculture, 1980–94



Source: FAO 1996.

placency regarding food security; (3) agricultural programs that had discouraging records of implementation; (4) the increased attention directed to related environmental and natural resource projects; (5) poverty alleviation programs that became increasingly disconnected from agricultural production; and (6) competition with other sectors, such as emergency and humanitarian assistance, democracy and governance, and refugee and relief assistance (Dresrüsse 1995; World Bank 1997b).

Within this period of investment retrenchment, one new investment activity should be noted. During the 1980s, in response to the changing economic and trade environment, USAID began shifting its declining focus toward agribusiness support. In 1995 USAID conducted an evaluation of these agribusiness support programs and concluded that poorer people had benefited from the agribusiness-related technical assistance and institutional strengthening activities (USAID 1995).

3. New Opportunities and Challenges: The 1990s and Beyond

The structural adjustment process—along with trade reform under the General Agreement on Tariffs and Trade (GATT), the rapid expansion of regional trade groupings, and Uruguay Round and World Trade Organization negotiations—have put some developing countries in a position to more directly exploit their national and regional comparative advantages. As a result their growth prospects are dramatically different (Tobey and Chomo 1994). Much more needs to be learned about the process of structural adjustment, particularly regarding the dynamics of the agricultural sector. This paper places significant importance on structural adjustment as a critical transition between the old and new paradigms.

This chapter describes some key sectoral and macro interrelationships and contrasting economic outcomes within the initial phase of the structural changes under way. Some of the potential new opportunities and complex challenges for developing countries are discussed. Attention is then given to the growing economic dependence developed and developing economies have on each other. The chapter concludes with a discussion of the changing role donor “assistance” can play in this new setting. The overarching conclusion is that unless agriculture and the rural sector get appropriate support, developing and developed economies will lose significant potential benefits.

Dynamics in the Developing Economies

Some Consequences of the Changing Economic Structure

Economic systems are becoming more demand-driven, more responsive to national, regional, and international markets. Some developing countries

are beginning to realize their comparative advantages. For them, agriculture is becoming a leading or lead sector, exports are expanding, and, most important, economic growth rates are showing notable improvements.

To assess these relationships, a list of SAL countries possessing at least a “satisfactory” performance grade by the World Bank’s comprehensive SAL evaluation system (World Bank 1996b) was reviewed against the list of 105 countries regularly monitored by the World Bank. The periods 1980–90 (chosen arbitrarily to highlight the “transition period” of many economies) and 1990–95 (chosen arbitrarily to show the start of the “market era”) were compared (World Bank 1997c). When a “satisfactory” SAL performer also showed that its GDP, agricultural, and export growth rates had risen above the averages listed for the 105 countries between 1980–90 and 1990–95, that country was selected for further comparative analysis. Of the 105, this approach identified 18 “faster-”growing economies that generally showed positive links between satisfactory reform and GDP, export, and agricultural growth rates. Table 2 provides the data for comparing the 18 faster-growing economies with the 105 World Bank countries grouped by income level. Observe that the average rates for the 18 countries are usually considerably above the World Bank’s weighted average rates.

Further comparison reveals, across the board, much higher GDP levels for the satisfactory SAL countries (4.9 percent), compared with the weighted average countries (1.4 percent). Eleven of the 18 faster-growing countries showed a positive relationship between better-than-average annual GDP growth rates for 1990–95 and increased exports and agricultural growth rates between the 1980s and 1990–95. The exceptions to this observation are

Table 2—Economic growth dynamics for selected developing countries

Economic group	Average annual growth rate (percent)						
	GDP 1990–95	Exports of goods and services		Percent change	Agriculture		Percent change
		1980–90	1990–95		1980–85	1990–95	
Low income							
Uganda	6.60	2.30	11.70	408.7	2.00	3.80	90.0
Nepal	5.10	1.10	25.80	2,245.5	2.60	1.50	-42.3
Benin	4.10	-2.70	6.30	333.3	1.40	4.90	250.0
Bangladesh	4.10	7.70	14.20	84.4	1.00	1.10	10.0
Mauritania	4.00	3.40	-1.00	-129.4	1.70	4.90	188.0
Senegal	1.90	3.90	-0.90	-123.0	2.80	1.30	-53.3
Average	4.30	2.60	9.35	470.0	1.90	2.90	19.0
Weighted average (from 49 countries, excluding China and India)	1.80	2.50	4.40	76.0	2.70	0.85	-124.0
Middle and lower-middle income							
Thailand	8.40	14.00	14.20	1.4	2.00	3.10	55.0
Indonesia	7.60	2.90	10.80	272.4	2.60	2.90	11.5
Costa Rica	5.10	6.10	9.50	55.7	2.80	3.60	28.6
Colombia	4.60	7.50	7.20	-4.0	1.20	1.40	16.7
Tunisia	3.90	5.60	5.60	0.0	1.60	-2.10	-31.2
Bolivia	3.80	3.50	6.70	91.4	-2.40	4.00	283.0
Ecuador	3.40	5.40	0.40	-500.0	4.40	2.50	-43.0
Philippines	2.30	3.50	9.40	168.0	1.00	1.60	60.0
Average	4.88	6.10	8.00	31.0	1.40	2.40	45.0
Weighted average (from 40 countries)	-0.05	4.50 ^a	7.60 ^a	68.0	2.80 ^a	-34.00 ^a	-1,314.3
Upper-middle income							
Chile	7.30	7.00	9.20	31.4	4.80	5.20	8.3
Argentina	5.70	3.70	6.90	86.5	2.00	3.90	95.0
Mauritius	4.90	10.40	4.80	-53.8	-5.60	-1.40	125.0
Uruguay	4.00	4.30	4.40	2.3	-2.00	4.50	375.0
Average	5.40	6.30	6.30	0.0	-2.00	3.10	255.0
Weighted average (from 16 countries)	2.60	5.90	7.40	2.5	2.40	1.80	-25.0

Sources: World Bank 1987 and 1997c.

^aWeighted average not available.

Nepal, Mauritania, Senegal, Tunisia, Ecuador, and Mauritius. These differences must be considered in the context of the generally poor performance of the World Bank's SAL program in Africa. Poor performance affected 4 of the 6 countries noted above. And while significant positive reactions to market signals are apparent, not enough time has elapsed to begin institutionalizing fully the new economic framework (World Bank 1996b).

Table 2 also shows that many developing countries are confronting severe problems. For example, the annual GDP growth trends for the "weighted average" of the 105 countries in the low and the middle and lower-middle income categories fall below the annual GDP levels recorded during the

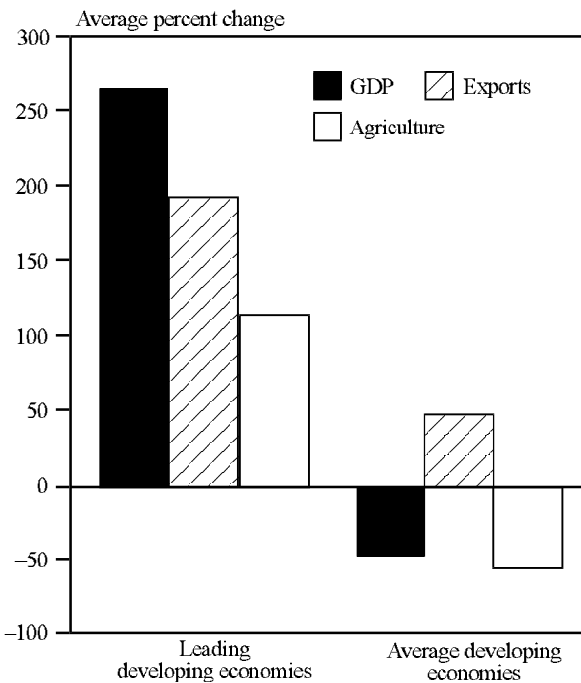
"lost decade" of the 1980s. Table 2 reveals as well the notable declines in the weighted average agricultural growth rates between 1980–85 and 1990–95. The agricultural growth rates for low-income countries declined by 124 percent; for middle and lower-middle income countries by 13 percent; and for upper-middle countries by 25 percent. The data reflect the major structural adjustments confronting large numbers of producers as they try to adjust to changing times. The average performance of the agricultural sector for the countries going through reforms more successfully varied widely by income group (low income, 19 percent; middle and lower-middle, 45 percent; and upper middle, 255 percent).

Figure 2 shows that the GDP of the “leading” developing countries (the 11 countries in Table 2 that consistently showed positive GDP, trade, and agricultural growth rates) grew almost 300 percent more than the GDP of the “average” developing countries (the 105 selected countries noted above) from 1980–90 to 1990–95. During this period, exports of the 11 countries grew almost 150 percent more than the exports of the “average” group, and agricultural growth rates grew more than 150 percent.

Potential Opportunities

Under the new economic framework, a few countries, particularly the poorer ones, show some signs of benefiting from improved exploitation of previously underappreciated assets and underutilized resources. While much more research is required, data tend to indicate that more-open economies provide agriculture and rural development with a new

Figure 2—Comparative economic growth and trade development shifts between 1980–90 and 1990–95



Source: World Bank 1997c.

Note: The “leading economies” are Argentina, Bangladesh, Benin, Bolivia, Chile, Costa Rica, Indonesia, Philippines, Thailand, Uganda, and Uruguay.

potential for generating a broad base for national development.

A recent study provides an overview of some of these dynamics as they relate to the Latin America and the Caribbean (LAC) region (Bathrick, Byrnes, and Stovall 1996). This research tracked production and export trends from the early 1980s onward. The study noted that around 1986–88 (the period during which the effects of the expanded regional trade agreement and SAL process were beginning to create a more favorable investment environment), agricultural-sector production trends and export growth both began to show significant increases. The countries that evidenced the most dramatic total production increases also showed notable to slight increases in the production of commodities in one or more subsectors—meat, fruits, vegetables, and oilseeds. These same countries showed declines (or at least no major increases) in cereal production. While major subsectoral shifts occurred, total agricultural sector performance improved, revealing more robust GDP rates than those of the other LAC countries.

Chile provides one of the most important examples of how, in response to major reforms, impressive economic growth is linked to a dynamic agricultural sector and an overarching market-driven macropolicy environment. Beginning in 1973, Chile introduced an overhaul of its economic structure. Heavy investments were made in human capital, basic infrastructure, and technology. A conscious effort was made to increase the competitiveness of the agricultural research system and to be more responsive to agricultural markets (Tabor 1995).

Agricultural growth rates increased from 0.25 percent annually during the period 1960–79 to 4.5 percent during 1979–90. The labor force dedicated to this performance shift increased from 14 percent of employed labor to over 19 percent, while agricultural unemployment declined to 2.4 percent by 1990. Agricultural, forest, and fishery product exports approached a 40 percent share of the country’s exports (USDA 1995). And by 1990, horticulture, which had previously been of no consequence, generated more than US\$1 billion annually (World Bank 1996a). Table 2 reveals that Chile was a consistent performance leader in its economic group, and for all groupings Chile led in sustained agricultural growth rates from 1980–85 to 1990–95.

The recent World Bank evaluation of its sectoral agricultural adjustment operations, AGSEALS, observed that returns on capital, including working capital, inputs, machinery, and new technology, were higher than before. These structural and sectoral activities also increased rural employment and income opportunities. The latter effects were due to the increased labor needs required for new land and crop management practices and expanded postharvest and processing activities arising in response to market-driven opportunities (World Bank 1996a). In this new setting, “agriculture” can now be cast beyond important production objectives to include the broader range of agribusiness-related linkages dealing with information technology, high-quality input supply, postharvest handling, agroprocessing and marketing systems, and related manufacturing and industrial uses of agricultural products. Major commodity adjustments are occurring as bulk products are being replaced by products that require significant sorting, handling, drying, and processing, all generating considerable added value and employment opportunities (FAO 1996). A recent study by the U.S. Agency for International Development (USAID) has some startling revelations about the agribusiness shares of national GDP, ranging from 71 percent in the Philippines to 14 percent in the United States (Table 3). This type of economic growth is strongly linked to generating a demand stimulus and reducing poverty, if there is widespread participation in the new market-oriented processes. These findings support the recent review by Mellor (1995) about the importance of market- and trade-driven systems for increasing labor-use intensity and economic efficiencies.

The World Bank’s review of its SAL experiences concludes that higher agricultural and rural growth rates are likely to have a “strong, immediate, and favorable impact” on poverty (World Bank 1996a). This comprehensive review also notes that high agricultural growth rates, those exceeding 3 percent a year, produce a decline in the World Bank’s poverty index grouping by more than 1 percent. According to the study, in no case did poverty decline when agricultural growth was less than 1 percent (World Bank 1996a). For the 1980–90 period, only two of the countries listed in Table 2 surpassed a 3 percent agricultural growth rate. By 1990–95, however, nine had substantially sur-

Table 3—Share of agribusiness in GDP, selected countries

Country	Share of GDP			Share of manufacturing and services in agribusiness
	Agri-culture	Agriculture-related manufacturing and services	All agri-business	
	(percent)			
Philippines	21	50	71	70
India	27	41	68	60
Thailand	11	43	54	79
Indonesia	20	33	53	63
Malaysia	13	36	49	73
South Korea	8	36	44	82
Chile	9	34	43	79
Argentina	11	29	39	73
Brazil	8	30	38	79
Mexico	9	27	37	75
United States	1	13	14	91

Source: Pryor and Holt (forthcoming in 1998).

Note: All agribusiness is defined as agriculture plus the shares of manufacturing and services that are related to agriculture.

passed this level, averaging a robust 4.2 percent annual rate during this period.

While this overview points to hopeful prospects for expanding equitable growth, the major shifts under way are generating some significant problems for a large number of countries, including many of the small and medium countries described as “leading economies” in Figure 2.

Structural Issues Remain

After years of neglect, most countries lack the policy framework, programs, and capacity to make the substantial adjustments that could ensure maximum gains from the new market orientation. Given the large employment force already tied to agriculture (ranging in most of those countries from 30 to 80 percent), and also the large unemployment and underemployment rates observed in many rural sectors, a dynamic agriculture will serve as the essential interim employment base for most countries. In this context, the limited national attention given and access provided to supporting agriculture presents an alarming situation.

Particularly vulnerable in the present situation is the significant number of small- to medium-sized agricultural enterprises (farms and agribusi-

ness) and the farm-related labor force. Farmers will be able to benefit from the changing base of customers and competitors only if they become aware of these issues, get prepared to address them, and are able to move into higher-valued crops or, more generally, into market-oriented production, postharvesting, agroprocessing, and market systems. In most instances, these opportunities entail higher capital costs and risks and the acquisition of a broader array of improved technological and related management and marketing skills. Given these costs and the limited economic advancements made during the later phase of the old paradigm and the “lost decade,” many economies have stalled during the structural transformation process. This has slowed the shift of employment out of agriculture and into the manufacturing, industry, and service sectors—a process that normally occurs in dynamic economies.

To illustrate the severity of the economic adjustment challenges, consider that between 1980–90 and 1990–95, 76 of the 94 countries with comparable data listed in the World Bank’s World Development Report (World Bank 1997c) showed a decline in annual per capita GDP. Twenty nine countries did not achieve the “minimum” 1 percent agricultural growth rate necessary for poverty levels to decline (World Bank 1996a).

In Latin America, where adjustment problems are increasingly acute, the small producer and rural worker face worsening conditions (Economist 1996a; Sheahan 1994; Valdés 1993). Issues associated with the region’s large population base threaten the very sustainability of the economic liberalization process (Schuh and Junguito 1993; Bautista 1993).

But improvements can occur under policy environments that favor appropriate exchange rates; private-sector and targeted public-sector support services related to infrastructure and education; marketing, technological, and financial services; and on- and off-farm employment and income opportunities (von Braun and Kennedy 1994; USAID 1994; Hayami 1996). Developing countries need to begin formulating and implementing the basic policies for aggressively promoting the private sector and facilitating linkages with a better-equipped producer base. Support for such a program needs to come from the highest political levels.

Dynamics in the Developed Economies

The developed economies require some attention because the new paradigm entails expanding global trade. The developed economies are making major economic adjustments similar to those undertaken by developing economies. On the economic policy front, developed economies have also emphasized reducing budget deficits and enhancing market forces through privatization and deregulation. Agricultural subsidy structures are going through revolutionary changes, and with World Trade Organization requirements this process will intensify. The results of these adjustments have varied for the two country groups. Table 4 shows that although output growth rates for the two economies were quite similar during the 1980s, the developing economies have had average annual growth rates more than twice those of the developed economies in the 1990s.

Table 4—Growth of world agricultural output, 1981–97

	1981–90	1991	1992	1993	1994	1995	1996 ^a	1997 ^b
	(annual percentage change)							
World ^c	2.90	0.40	1.10	1.00	2.40	2.50	2.80	3.00
Developed economies	2.90	0.80	1.60	0.80	2.70	2.10	2.30	2.25
Developing economies	3.10	3.50	4.90	5.00	5.40	5.20	5.70	6.00

Source: UNESCO 1997.

^aPreliminary estimate.

^bForecast based in part on Project LINK (the International Research Group of Econometric Model Builders, with headquarters at the Department for Economic and Social Information and Policy Analysis of the United Nations Secretariat).

^cCalculated as a weighted average of individual country growth rates of GDP, where moving weights are based on GDP in 1988 prices and exchange rates.

Implications of Expanding Markets

Since 1985, world exports from developed countries have increased by 270 percent, from US\$1,229 to \$3,325.2 billion (UN 1997). Economic growth in many developed economies is linked increasingly to expanding international trade facilitated by the World Trade Organization and to growing global financial flows. In the mid-1990s most of the growth in Austria, Belgium, Canada, France, Germany, Netherlands, Norway, Sweden, and Switzerland came from export expansion (UNESCO 1997). Table 5 shows those developed countries whose average annual growth rates between 1980–90 and 1990–95 increased by more than 2 percent (the weighted average for the 1990–95 period). All showed increases in exports of goods and services over the same period, except for Australia.

An exciting prospect for developed countries is the increased opportunity for expanding product sales in the faster-growing developing economies. The developing countries now procure more goods and services, including agricultural commodities, from developed countries than the developed countries sell within the developed-country group.

The share of developed-country exports to developing countries expanded from 13 percent in 1970/71 to more than 26 percent in 1992/93, averaging a 3 percent increase annually (Pinstrup-Andersen, Lundberg, and Garrett 1995). Japan now exports almost 50 percent of its products to developing countries, and the United States more than

40 percent. U.S. sales to Latin America and the Caribbean surpass those to Europe. Germany exports more to developing countries than to all of its major industrialized trading partners outside Europe combined (Business Alliance for International Economic Development 1997). Using U.S. export-to-job-creation ratios and applying these globally, IFPRI calculated that exports from all developed countries to developing countries in 1993 created more than 14 million jobs (Pinstrup-Andersen, Lundberg, and Garrett 1995).

Donors Reassess Sector Strategies

These unprecedented opportunities for mutual benefit may be sparking a changed assistance strategy by some donor agencies. Private-sector money, national and international, will comprise the largest untapped base for investment, and donors will need to provide complementary support. But first, significant policy and strategic shifts will be required. As Figure 1 shows, donor assistance in 1994 was 20 percent less in current dollars than in 1980 (FAO 1996).

One example is the World Bank's new program, "Rural Development: From Vision to Action," which provides an innovative global mechanism for introducing and implementing sectoral reform on a global basis. The program is more market-driven and seeks "partnerships" with host countries that place the highest level of commitment on policy reform and sectoral structural adjustment. The program also links with the broader donor community,

Table 5—Economic growth and trade: Developed-country dynamics

Country	Average annual growth rate					
	GDP			Exports of goods and services		
	1980–90	1990–95	Increase	1980–90	1990–95	Increase
	(percent)					
New Zealand	1.8	3.6	100.0	4.1	5.2	26.8
Israel	3.5	6.4	82.9	5.5	9.5	72.3
Ireland	3.1	4.7	51.6	8.9	10.7	20.2
Singapore	6.4	8.7	36.0	10.0	17.0	70.0
Norway	2.9	3.5	20.7	5.0	5.1	2.0
Australia	3.4	3.5	3.0	7.0	6.8	–3.0
Average	3.5	5.1	49.0	6.8	9.1	33.0
Weighted average (for 25 countries)	3.2	2.0	–37.5	5.2	6.4	23.1

Sources: World Bank 1997c and FAO 1994.

private sector, national institutions, and NGOs. By 2000, major structural changes in many countries are expected (World Bank 1997b). Few specific country-level initiatives have been reported so far.

Important complementary activities by other donors are under way. DANIDA has taken probably the boldest step by deciding that agricultural assistance should rise to 20 percent of its expanding portfolio (Carney 1997). The Inter-American Development Bank completed two strategy exercises (IDB 1997a and 1997b) that supported the expansion of agricultural and rural development. The United Kingdom's Department for International Development (formerly the Overseas Development Administration) also decided to strengthen its agriculture portfolio in response to the "special relationship between agricultural development and poverty reduction" (Carney 1997). Norway has also completed a new development assistance strategy document that focuses on improving the capacities in agricultural production areas. Germany is taking a comprehensive look at how it can best support agricultural research and the sector as a whole. In addition, USAID recently announced that agricultural growth will be the strategic objective of one of its programs, "Economic Growth and Agricultural Development."

These activities are generally in a nascent stage of development. At the present pace, considerable time will pass before the new policies are estab-

lished and successfully implemented. There does not appear to be any effort at systematic coordination and sharing of knowledge. Given the dramatic changes that have been occurring for more than a decade and the declining levels of external assistance, donors need to make a special effort to help facilitate the appropriate producer and related private-sector responses.

In the United States, some groups have tried to mobilize broad-based political support for a pro-agriculture position. The National Center for Food and Agricultural Policy (NCFAP) successfully brought together senior-level members from agribusiness, commodity organizations, and universities to facilitate U.S. help in transforming developing-country agriculture. The group recommended that the U.S. government appropriate \$500 million to this end (NCFAP 1997). A broader coalition of high-level bipartisan political interests and members of business, academic, and private voluntary organization (PVO) communities, all under the auspices of the Center for Strategic and International Studies (CSIS), has targeted the multilateral donor community. The CSIS task force concluded that it is in the United States' direct economic interest to press multilateral development banks to facilitate market-driven programs for small producers. The task force has placed the U.S. Department of Treasury and Congress in a position to follow up as necessary (CSIS 1997).

4. Why Fundamental Change?: Issues for Conceptualizing the New Paradigm

During the 1990s, the globalization of the world economy stimulated \$1,200 billion of annual capital flows (Bankema and Drabenstott 1997). Mutually reinforcing economic and trade policies helped mobilize these investment levels. The expansion of (1) telecommunications and computer information services, (2) international travel and shipment, and (3) new technologies, including new biotechnology applications and information networks, also influenced economic globalization (Hamm 1997). Goods, capital, and ideas can be transported more easily now, thus creating considerable opportunities as well as risks and challenges (IMF 1997).

The anticipated benefits of this interdependence will come from more rapid and sustainable growth rates by the developing economies. Here, agriculture becomes most critical, given its direct linkages to economic growth and trade. There is growing evidence, however, that many developing nations either are not positioned to undertake essential economic reforms or will bear the costs of benefits received by others. This chapter provides the connecting points between analyzing the current dynamics and what should be done about them.

The Role of the Market Becomes a Paramount Consideration

Paradigm shifts require the introduction of fundamental policy and strategic changes (Pingali 1997). Previously, food and agricultural market systems worked within controlled and inefficient parastatal structures in part designed to bring “maximum social benefits” and not determine value, provide service, or generate value-added opportunities. Dynamic and competitive market systems are increas-

ingly being recognized as a major means to ensure optimal economic growth. Now, as national economic systems have been liberalized and tariffs dramatically reduced, national, regional, and global production shifts are occurring and competitiveness issues are becoming matters of utmost importance. Such developments will generate unprecedented adjustment issues as producers and consumers respond to changing product lines and sources, prices, and needs.

Agricultural and Rural Development Become Essential for Generating Broad-Based Economic Growth

During the first international development era import-substitution policies prevailed and agriculture was often viewed as a declining sector, unworthy of the special support accorded the more promising manufacturing and industrial sectors. In effect, agriculture was the problem! Although this approach to development was refuted, it held sway during the structural adjustment era and has become practically institutionalized in developing countries and many donor institutions. This situation needs to be reversed.

Under the new market-based, trade-driven system, economic growth and national competitiveness are dependent on the development of a dynamic agricultural sector. Countries such as Chile, Indonesia, Malaysia, and Thailand have grown and prospered by investing in their agricultural sectors. Given its sheer size and inherent characteristics, a dynamic agricultural sector becomes an essential element for broad-based economic growth (Pandya-Lorch 1994), while also enhancing the environment and creating a stable society.

Agriculture Requires a Vision that Transcends Traditional Sector Approaches Based on Production

Traditionally, agriculture was important for meeting national food production objectives. Ministries of agriculture were responsible for food production and supply activities around specific national commodity programs. Under market liberalization, agriculture needs to be systematically linked to a broader range of ministries that includes economy, industry, commerce, trade, labor, environment, and health. In this broader strategic perspective, agriculture becomes the essential thrust (Bautista 1993). Making the shift away from a traditional sector approach is difficult because ministers of agriculture are generally not high on the political power ladder and lack the necessary experience and strategic capacity to transcend the old paradigm.

A Pervasive Import-Substitution Legacy Needs to Be Overcome to Optimize Responses to the New Economic Order

Import substitution is also part of the old paradigm. For 30 years, government-led import-substitution strategies and procedures generated inefficient resource allocation, constrained agricultural growth, and thwarted rural and sector investment. This has left a very weak response capacity, particularly for small- and medium-sized producers to diversify, assume risks, and become competitive. The previous chapter offered some country and program examples that indicate that once agriculture becomes “unshackled,” it can make promising contributions. The earlier analysis suggests that with appropriate support considerable opportunities exist to spur growth through nontraditional and traditional agricultural exports and market-led/mixed farming operations that include some cereal production, agribusiness and postharvest employment activities, and market-driven rural development traditional programs. Nonetheless, elements of the old paradigm still prevail, constraining the bold responses now warranted. If developing countries

are to derive the inherent gains now possible, they must make bold and sustained policy reforms and commitments (UNCTAD 1996).

New Public and Private Roles Are Required to Facilitate Investments and Equity Needs

Previously, bloated government bureaucracies in developing countries were usually centralized and dictatorial. And because of the working precepts of the import-substitution strategy, they maintained only sporadic interactions with the private sector. Today’s economic globalization process has decreased the influence of the nation state. While new roles and means of support need to be established for agriculture, budget and staff reductions have weakened the capacity and influence of ministries of agriculture. Many developing-country governments lack the analytical capacities to present, defend, and persist with the new policy framework for stimulating growth. To nurture the “new” agricultural systems, the public and private sectors will need to develop institutional capacities and technologies. Developing-country governments will have to reformulate attitudes, articulate national-level comparative advantages, and define and develop operational roles and political support for cooperation among the producer, agribusiness, investment, NGO, university, and international research communities.

Donor Countries Should Fashion Appropriate Commitments for the New Opportunities and Needs Now Prevailing

Donor assistance and staff levels, particularly in the economic growth portfolio that includes agriculture, have been declining for years while, conversely, developed-country private-sector investment flows are at record levels. Domestic savings fund 90 percent of the needs in the developing countries, and this is projected to be the major source for agricultural sector investment for years to come (Bankema and Drabenstott 1997). However, given the traditional antirural biases at a time

when opportunities abound, some time will lapse before national financial markets generate flows commensurate with development needs. National governments and donors need to create a mindset favorable to agriculture by fashioning a critical mass of programs that can accelerate the recapitalization process.

Foreign Aid Programs Must Transcend Original Premises to Embrace Opportunities for Broader, Mutual Growth

Development assistance to agriculture and rural development directly benefits the economies of both the developing and developed countries. For example, in the area of agricultural research, IFPRI reports that for every dollar donors invest in agricultural

research in the developing world, their exports increase by US\$4.39 (Pinstrup-Andersen, Lundberg, and Garrett 1995). Given that the largest group of trading partners for the developed countries is the world's poorer countries, the emerging rationale for international programs transcends traditional approaches targeted to assist the poor and instead addresses a broader series of poverty-related issues (for example, environment and local empowerment), while also contributing directly to the future economic growth of the developed economies. True global partnerships based on mutual economic interests are now possible. Donors need to view their vision of aid as one designed to help create the enabling environment for economic development. Apart from extremely important humanitarian objectives, investments to strengthen the competitive capacities of small and medium producers are essential for fostering greater equity and stability.

5. *The New Paradigm: What Should Be Done?*

To begin the process of putting together the appropriate pieces for a new environment in a way that ensures the broadest impact in key areas of the economy, this section lays out the new paradigm's broad framework, describes its programmatic elements, and provides essential strategic considerations for facilitating its implementation.

The Conceptual Framework for the New Paradigm

Within the strategic framework of the new paradigm, agriculture is viewed broadly as a dynamic sector tightly interconnected to the rest of the economy. Agriculture now becomes a key element within a food and agroindustrial system. Agriculture creates economic growth by generating jobs, incomes, and savings; reduces poverty and food insecurity; enhances the natural resource base; and fosters greater social contributions—including domestic tranquility. A dynamic agricultural sector seeks to expand, in a cost-effective and risk-reducing way, linkages with input supply, postharvest processing and handling, and distribution and manufacturing in order to maximize broad-based economic growth opportunities. The overall agricultural environment must be conducive to the changing requirements of producers and rural residents as they respond to the needs of increasingly distant consumers and competitive producers and agribusinesses. These shifts must also embrace the increasingly complex environmental issues affecting natural resource management and public health.

Program Elements of the New Paradigm

This section lays out the critical, mutually supportive elements considered essential for national governments to respond adequately to changing times.

Each needed program element is followed by brief characterizations of how the old and new approaches would address it.

Create the Capacity to Strategically Advance and Promote National Comparative Advantages and Competitiveness

Old Approach. Governmental efforts focused on achieving public-sector based, national production targets. Little attention was given to changing national markets, and even less to regional and international trends. Basically, little if any engagement occurred with the private sector.

New Approach. Short- and medium-term strategies are needed to take advantage of national, regional, and international market opportunities in light of national endowments and capacities, and to respond to international competitors that may create areas of market vulnerability. The private sector, which includes producer associations, agribusiness, and industrialists, and the public sector will need to interact effectively in order to respond to changing realities in a way that will produce relevant macro and sector policies. Pluralistic approaches with wide participation around local and national opportunities and by key stakeholders will have to be devised. The new international, regional, and national trade codes, standards, and regulations will have to be understood and used to define and defend national interests and strategies. Services that offer market intelligence and assessments concerning agroecological conditions, labor and land productivity, production costs and marketing needs will need to be developed (Blackman, Shui, and Wailes 1992).

This kind of market analysis will help guide research and development strategies and projects,

technological development, and training programs. Plans for dealing with the large numbers of producers that may be displaced need to be updated; these should include alternative agricultural or rural development strategies and safety-net programs. Such adjustment issues will become increasingly daunting. In addition, trade service capacities will need to be developed to address new phytosanitary, pesticide tolerance, intellectual property rights, and other regulations. These broad-based activities will help promote a more supportive base for agriculture throughout the business, consumer, and political establishment.

Establish Appropriate Policy Frameworks and Mutually Supportive Linkages with Other Sectors to Ensure Maximum Impact on Development

Old Approach. Agricultural-sector planning focused mainly on short-term, food provision concerns. Strategic linkages with the ministries of economy or finance were not adequately developed. And politically sensitive structural issues such as land tenure and titling received low priority.

New Approach. Regional and global trade reforms create opportunities for rural economies that have definite comparative advantages. But appropriate macro and sector policies and structures are crucial for strengthening production factors in order to enhance national competitiveness (Anderson 1995). Economic policy issues related to exchange, interest, and tax rates are key here (Schuh and Junguito 1993; Valdés 1993). Also, to ensure maximum efficiency, a country must suitably integrate its commercial, legal, environmental, educational, and public health policy needs and opportunities. In this context agriculture should not be so traditionally sectorialized. Rather, in light of the needs of the food and agroindustrial system, boundaries between agriculture and the industrial and service sectors must become more blurred. Further, given the capital formation requirements, land tenure reforms and markets that enhance land investment and stewardship become essential, high-priority policy topics.

Develop the Necessary Management and Marketing Skills and Support Services

Old Approach. The old regime did not usually stimulate entrepreneurship. On a less than adequate basis, the public-sector extension agents provided some basic training concerning new plant varieties and recommended agricultural practices for a limited number of skills related to raising crop yields.

New Approach. A new human capital base must be prepared for an increasingly competitive world. Dramatically different skills are now needed to respond to (1) promising activities associated with high-value cropping systems; (2) market-oriented crops and more remunerative land use practices; and (3) reductions in production costs for traditional cereal crops. In the absence of such skills, individual producers will be poorly equipped to compete.

In addition, postharvest handling, agroprocessing, and skills that address the environment, consumer health, and worker safety will also be required. Advanced farm management, agribusiness management, marketing, and enterprise planning become essential skills for dealing with inherent risks and responding to new consumers, competing prices, changing quality and health standards, and contractual specifications and deadlines (Litzenberg and Parks 1996). While some producers may be able to generate sufficient revenues to pay for such training or to contract for specific agronomic, management, or marketing services, others may be in a position to obtain them through associational arrangements. Grower-business arrangements, producer associations, special short courses from local universities, or viable PVOs/NGOs specializing in services need to be encouraged.

Develop Dynamic Market Systems and Complementary Infrastructure Services

Old Approach. Parastatals or government-influenced cooperatives provided minimal, usually unreliable, services that often crowded out private-sector sellers. And because the building blocks of trade were neglected, basic rural infrastructure that could have complemented marketing activities was not adequately developed (Hayami 1996).

New Approach. The era of “produce and then sell” has ended. Knowledge of consumer needs and product promotion has become paramount for linking local capacities with national, regional, and international needs. Market information services and intelligence systems to keep abreast of promising products will be increasingly important under the new approach. Rapid improvements in farm-to-market roads, regional packing points, rail and port facilities, and refrigeration facilities, and access to modern telecommunication and accurate and timely product and price information are essential (Carney 1997). The private and public sectors should also improve management of information about sanitary and phytosanitary measures and related international standards and guidelines.

Establish Comprehensive Rural Financial Markets

Old Approach. Parastatal agricultural credit banks provided a small segment of the population with production credit for targeted programs, usually on a spotty, untimely basis. No incentive for significant private-sector investment in the rural sector was created.

New Approach. Given the growing concentration of national and foreign investment capital and banking services in the major urban centers, new mechanisms are needed to stimulate rural investment. The prevailing economic environment creates opportunities for innovative ways to mobilize local savings and support local credit and banking services. Since most investments will continue to be from citizen savings, the relevant experiences of private-sector rural financial services responsive to local needs in Colombia, Indonesia, the Philippines, and Thailand need further examination. To take advantage of newly attractive investment opportunities in agriculture, mechanisms that build on privately managed services responsive to local needs need to be given the highest priority.

Create Market-Driven Technologies for Achieving Growth

Old Approach. Government supply-driven strategies and national food commodity programs

focused little attention on marketing efficiency and service requirements as a way of benefiting the producer and maximizing rural incomes.

New Approach. Access to knowledge about production and processing technologies relevant to local conditions and changing market opportunities is critical (Economist 1996b). Compounding the challenge is that, as a result of the changing fiscal environment, institutional capacities have eroded, donor support to the international agricultural research centers has stagnated, and private-sector linkages and investment opportunities have not been institutionalized.

That a more market-driven environment requires technologies that promote environmental sustainability, productivity enhancement, economic efficiency, and risk reduction further complicates the issue. Recently, in a limited number of countries (Honduras, Bolivia, and Ecuador), some alternative public/private institutional approaches have been conceptualized to provide services more responsive to these needs.

Much more needs to be done, however, in order to provide appropriate technologies to meet changing market opportunities. A large number of traditional cereal producers, for example, will confront special needs. Therefore, a variety of interrelated topical areas are expected to become priority themes: (1) adoption of productivity-increasing technologies to help cereal producers lower per-unit production costs in order to become competitive, (2) adoption of technologies to improve nutrition and enhance the sustainability of the natural resource base, and (3) adoption of technologies to help reallocate land and labor toward higher-valued, more market-oriented crops that hold greater potential for increasing incomes.

Other priorities relate to germplasm and cultural practices for traditional and nontraditional export crops, postharvest processing and handling, and food safety requirements.

Given the advances in low-cost communication and information systems, countries can cost effectively link with appropriate international agricultural research centers and other elements of the global research system, including developed-country private-sector firms and universities. These institutions increasingly desire technical competi-

tiveness at the global level and thus seek participation in low-cost, mutually beneficial research and outreach services and networks (NCFAP 1997).

Utilize Natural Resource Management Practices to Enhance Sustainable Use

Old Approach. The policy environment was usually not conducive for introducing sustainable resource management practices and land improvement investments. Therefore, limited attention was paid to sustainable land use practices, except by the occasional government extension worker or NGO technical promoter.

New Approach. Forest management and conservation needs are receiving greater international attention because of their linkages with global biodiversity, air quality, and soil and water quality. The new economic environment, which will promote land-improving investments and farming systems based on more rational resource allocation, could provide new opportunities for introducing more sustainable natural resource management practices (Scherr and Yadav 1997; USAID 1994). Increased attention to land tenure and land security also helps facilitate resource stewardship and land and water investments. International satellite monitoring provides reliable mechanisms for assessing conservation and changing land-use patterns, and for developing and monitoring appropriate policies. When a more favorable policy environment provides appropriate incentives, these practices have introduced significant improvements in forest management, as observed in Costa Rica. Land- and water-use taxes can facilitate more efficient resource use, enhance productivity, and create value-added opportunities for generating greater income (Rosegrant, Guzman, and Yadav 1995). In addition, increased support to train NGOs and user organizations for forest landowners can result in cost-effective ways to (1) educate local residents about economic and ecological benefits, (2) improve local land and forest management skills, and (3) facilitate local control of forest resources and establishment of law enforcement services.

Develop Alternative Strategies to Expand Rural Well-Being

Old Approach. "Integrated rural development" programs were relatively inflexible and were managed

from the top down. They placed limited emphasis on stimulating local demand.

New Approach. Instead of attempting to provide comprehensive social and economic services as before, alternative approaches should focus on maximizing economically productive opportunities in targeted, intermediate-level rural towns. The new policy environment reverses the negative terms of trade toward the rural sector, stimulating demand for local products and creating a more favorable environment for local, national, and foreign investors. Targeted and coordinated activities by producers and investors would result in enterprises that generated farm and nonfarm employment. This would expand local market opportunities and create sustainable economic growth (Bendavid-Val 1989; USAID 1994).

Private- and public-sector investments can be facilitated by targeted incentives and activities that support selected infrastructure, education, and training programs, and basic health services. Education and health needs are particularly critical and have been a major factor in the traditional low productivity levels associated with rural residents (Schuh and Junguito 1993). In addition, given the dramatic adjustments anticipated, particularly for the large numbers of traditional cereal producers, broader safety-net programs will have to be contemplated in case the above approaches do not live up to expectations. Only recently have the World Bank and the International Monetary Fund begun to emphasize safety-net programs as an essential element in SAL programs (Bezuneh and Deaton 1997).

An Essential Strategic Consideration for New Paradigm Implementation: Stimulate Strategic Alliances and Partnerships with the Private Sector and Other Institutional Stakeholders

An overarching strategic consideration applicable to all the above program elements should be noted. The transition from a closed, command-focused economy to a more free-market economy has several implications for the activities and functions of the nation state and national-level stakeholders. Recent developments associated with globalization

have added to the burdens of many weakened governments, most of which are democratic, albeit quite fragile. These governments need to establish priorities and seek alliances in order to facilitate the provision of key services.

National governments and the private sector (producers, financial institutions, and agribusiness firms, among others) need to interact, and this will require new attitudes and working assumptions. According to a recent World Bank report, governments must be market partners and facilitators by providing legal foundations, an effective macro policy environment, investment in basic social services and infrastructure, comprehensive safety nets for vulnerable citizenry, and basic environmental protection (World Bank 1997c).

Given the rapidity of change and the legacy of center-based governmental programs, the need for extensive participatory efforts between govern-

ment, rural residents, and the private sector need to be stressed along with decentralized operations and the promotion of local organizations. Lessons need to be learned quickly regarding these experiences so that empirically informed guidelines can be developed in short order (Carney 1997).

Many developed-country stakeholders, including the private sector, universities, and PVOs/NGOs, are in a position to provide essential technical, marketing, and business capabilities to producers and key institutions in developing countries. Mechanisms that can certify the capabilities of developed-country service providers need to be considered. Donor responsiveness to this dramatically different environment must be established in a way that is flexible and reflects institutional comparative advantage. The World Bank's new program, "Rural Development: From Vision to Action," provides a framework for advancing these new themes (World Bank 1997b).

6. Implications of the New Paradigm Together with the 2020 Vision Action Plan

IFPRI's 2020 Vision initiative seeks to develop and promote a shared consensus for meeting food needs while reducing poverty and protecting the environment. It does this by generating information and debate that will influence action by governments, NGOs, the private sector, international development institutions, and civil society. IFPRI contends that substantive progress toward ameliorating pervasive developing-country problems will only occur if agricultural opportunities are taken advantage of by the political, research, donor, and business communities to accelerate broad-based economic development.

The 2020 Vision effort has helped educate a large number of world leaders, institutional executives, legislators, and development professionals to better understand the consequences of not aggressively pursuing these development objectives. However, except for the important initiatives recently observed on the donor front, a large degree of complacency still prevails. Agricultural program visibility in developing and developed countries continues to decline, and few efforts are under way to provide the new responses needed.

This paper builds from earlier 2020 Vision research, but places the issues in the context of the critical questions that presidents, prime ministers, and ministers of economic affairs increasingly confront: How can I enhance my country's competitiveness while addressing related equity issues? Framed this way, long-festering problems can surface more easily for national debate. And strategic shifts with greater relevance to 2020 Vision objectives can be more expeditiously pursued. National economic survival issues may well be linked to agricultural structural transformation.

National leaders, including ministers of agriculture, must be exceptionally strong and persistent advocates for agriculture if some formal progress is to occur. With the necessary support by governments, the private sector, and donors, agriculture demonstrates performance levels comparable to those for manufacturing and industry. Cost-effective job and income-generation objectives for the poorer segments of the developing countries can now begin to be addressed. In doing so, large numbers of people will become less food insecure and better stewards of their resource base.

7. Conclusions

This paper proposes a twenty-first century Agricultural Development Paradigm to respond to unprecedented opportunities provided by worldwide economic reforms and trade liberalization initiatives. This paradigm breaks notably from the past at a time when a critical economic crossroads is being reached—the opportunity to move forward is at hand, and the costs of delay or going backward will be severe. The challenge will be to recognize fully this unique moment and advance along the correct route armed with broad support, appropriate knowledge, and heightened sense of dispatch.

The central element for selecting the proper road is provided now by the agricultural sector. As documented, under a more market-driven economic policy framework, agriculture is capable of facilitating trade expansion and GDP growth, while also helping to generate incomes and jobs for the poorest part of the population, facilitate more appropriate land and natural resource practices, and provide broader social benefits within an increasingly decentralized political framework. However, because of the deep-rooted legacy of the old paradigm, fundamental institutional adjustments and structural changes will be required before agriculture can respond fully to the new opportunities. Bardhan (1989) has wisely observed that we often apply the simple “laws” of market and supply and demand without being fully conscious of the complex institutions on which contracts in actual markets crucially depend.

To make a decisive shift toward markets, national governments must become convinced that such structural changes are in their national interests. Accepting this will not always be easy, and in that regard the World Bank and major bilateral donors will need to play more aggressive and vigilant roles. Producers, the private sector, developed-economy agribusiness, investors, NGOs, and universities will also have to play mutually beneficial

roles. To help advance this process and conceptualize the nature of the program thrusts and supporting elements of the Agricultural Development Paradigm, the paradigm’s key themes are outlined here.

- The role of the market becomes a paramount consideration.
- Agricultural and rural development become essential for generating broad-based economic growth.
- Agriculture requires a vision that transcends traditional-sector approaches based on production.
- A pervasive import-substitution legacy needs to be overcome to optimize responses to the new economic order.
- New public and private roles are required to facilitate investments and equity needs.
- Donor countries should fashion appropriate commitments for the new opportunities and needs now prevailing.
- Foreign aid programs must transcend original premises to embrace opportunities for broader, mutual growth.

It is time to go beyond the macropolicy environment that is now fairly well in place throughout the world and enter into a series of complementary, sector-specific activities. These will draw heavily from private-sector investment—the bulk generated by producers, who, at this juncture, will have to be supported nationally and by donors. In the push to respond to current opportunities, there may be a tendency to dust off programs deemed appropriate during an earlier era. However, this temptation should be curtailed because it would likely be counterproductive. Instead a series of key program elements considered essential for creating the new food and agroindustrial systems should be kept in mind:

- Create a capacity to strategically advance and promote national comparative advantage and competitiveness.
- Establish an appropriate policy framework and mutually supportive linkages with other sectors to ensure maximum effectiveness of development efforts.
- Develop the necessary management and marketing skills and support services to enhance local development opportunities.
- Develop dynamic market systems and complementary infrastructure services.
- Establish comprehensive rural financial markets.
- Create market-driven agricultural technologies for achieving growth.
- Utilize natural resource management practices to enhance sustainable use.
- Develop alternative investment, growth, and welfare strategies to improve rural well-being.

The new paradigm will not be institutionalized soon unless high-level commitments are mobilized quickly to forge the new system. The major adjustments described will have to occur during a period of very high stakes and uncertainties. The new global economic system has been launched and there is great hope that this will be the basis for im-

proved economic well-being. The world's economic future is linked to growth that is socially, environmentally, and politically sustainable. The successful transformation of literally hundreds of millions of farm enterprises and the gainful employment of a similar number of rural dwellers, many of whom are poorly prepared to respond to new requirements, are at stake. Backsliding by fragile governments that are poorly equipped to deal with complications arising from structural adjustment would generate disastrous consequences.

Leaders from the developing and the developed communities and donor agencies now have a special opportunity to chart a new course for a more sustainable and prosperous century. Developed countries, many building on traditional international ties and their experiences with market-based growth, should urgently support and help coordinate the global transformation process. Under such an initiative, the prospects for maximum global well-being will be enhanced considerably.

Donor countries and the senior members of their governments have a special opportunity to stimulate discussion, guide direction, and support globalization's evolution. Not only will donor countries realize their broader humanitarian and foreign policy objectives through such efforts, but their economic interests will be served as well.

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