

penetrated the market and their share is increasing. Moreover, the United States and some European countries have established joint venture supermarkets in the main cities.

During 1982, Saudi Arabia's annual per capita consumption reached 150 kg for fruit and 135 kg for vegetables, which is close to the West European annual per capita consumption of 158 and 181 kg, respectively. Since the Saudi government has extended its agricultural subsidies to the horticultural subsector, domestic production has increased (Table 3).

The Middle East countries' horticultural investment projects have been mainly oriented toward export markets. These projects have been organized around public or cooperative institutions, particularly on the production side. With the imminent change in export markets because of Spain and Portugal's accession to the EEC in 1986, successful horticultural policies during the 1970s need to be reexamined for the 1980s and the 1990s. Consequently, the Middle East countries should adjust their horticultural production and marketing system as follows: a) develop new marketing approaches and discuss their future marketing outlook with the EEC and other export markets; b) improve domestic marketing, which has been neglected, particularly for urban markets in major cities; c) strengthen

applied agricultural research and extension to be responsive to domestic and competitive export markets; d) introduce major organizational changes in their export strategies suitable for each country's system of operation; e) improve their market information systems; f) optimize the rising cost of horticultural commodities to consumers, otherwise consumption will be restricted to the rich and to the urban elite; g) improve the educational system, particularly for producers and consumers of horticultural crops; and h) explore opportunities for development of new horticultural crops.

Literature Cited

1. The World Bank and International Finance Corporation. 1983. The World Bank, Washington, D.C.
2. The World Bank Atlas. 1985. The World Bank, Washington, D.C.
3. Koester, U. and M. Bale. 1984. The common agricultural policy of the European community—a blessing or a curse for developing countries? World Bank Staff Working Paper 630.
4. UNDP/FAO. 1984. The major markets for fruit and vegetables in the Arabian Gulf. Regional agricultural marketing project for the Near East. No. REM 503-1/84.

Agriculture and Rural Development Strategy

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In the 13 countries and Caribbean islands where the U.S. Agency for International Development (AID) has programs in Latin America, the agricultural sector is still the dominant economic force. Over half the population of these countries lives in rural areas, in spite of high migration rates to the cities. Agriculture is the primary economic activity: Agriculture generates 68% of the foreign exchange necessary to buy imported products; it contributes 20% of the gross domestic product of these economies; agriculture is the single most important source of employment (employing from 40% in Peru to 70% in Haiti) of the entire labor force; and agriculture contributes about 50% of the value added to these economies.

Developmental problems in the sector

In spite of its importance, the rural sector has been neglected in most Latin American economies in the push to industrialize. It has ceased to be the "engine of growth" and, in fact, has lagged considerably behind that of the manufacturing and industrial sectors. Exchange rates and pricing policies are among the factors that have dampened expansion of agricultural production. Revenue from the sector, rather than being reinvested in advancing agricultural productivity, has been shifted to the cities. One result of this has been a widening gap between the living standards of urban and rural citizens. Rural per capita income averages less than half the national average, and social indicators for education, health, housing, and public services are dramatically worse. The number of landless and near-landless workers is also increasing—they now represent 50% of the rural work force in some countries. These conditions have led to rapid migration to the cities—far outstripping the capacity of the urban economy to absorb new manpower—and the building of political tensions has occurred as unemployed and underemployed urban workers put increasing pressures on their governments.

The problems of agriculture and the rural sector are severe. The economic performance of the sector has deteriorated significantly. The growth rate of the sector is now about half what it was in the 1960s. New job opportunities in rural areas have failed to keep pace with a high population growth rate of almost 3% per year. In its key role as foreign exchange earner, the sector has also faltered badly in recent years, due in part to present world market prices for traditional exports such as coffee, bananas, cotton, and sugar. Land

productivity is low (especially for staple food crops) and is constrained by landholding patterns, low productivity, obsolescent technology, inadequate production incentives, inadequate capital, and lack of access to resources and markets. Land mismanagement, with its attendant natural resource degradation, is widespread and an increasingly serious problem. Malnutrition and nutrient deficiency are prevalent in rural areas. The agricultural sector cannot meet the domestic demand for food, nor is it likely to for the next 30 to 40 years, without an unprecedented effort.

LAC agriculture and rural development objectives

The Latin American and Caribbean (LAC) Bureau's agriculture and rural development policy has the twin objectives of 1) increased and sustainable food and export agriculture production; and 2) expanded rural incomes to enable people to obtain adequate food and participate in a broad-based rural development process. These objectives are directly related to the Agency's food and agriculture policy objectives as stated in the *AID Policy Paper: Food and Agricultural Development (May 1982)* and to the region's agricultural sector problems. With demand for food currently expected to grow faster than supply in many countries in the region over the next 20 years, a higher rate of growth of food production for domestic consumption is essential to minimize the adverse effect that rapidly growing demand will have on the countries' foreign exchange positions. Farmers in LAC countries also need to diversify into higher-value, nontraditional crops for domestic consumption and export to increase foreign exchange earnings and generate additional employment and income in rural areas.

Basic precepts underlying the strategy

LAC's Agriculture and Rural Development Strategy to achieve the above objectives is based on the following precepts regarding the role of agriculture in the development process:

1) Agriculture is a private business whose output is determined by expected returns. We must examine policy and program interventions in light of the economic probabilities for raising farm incomes.

2) Agriculture is part of a rural social system that involves owner/

operators and their employees and buyers/suppliers — all dependent on the prosperity of the farm in complex relationships rooted in the history and culture of the individual country. Therefore, the analysis of priority problems and opportunities must be performed at the country/mission level.

3) Agriculture is an integrated economic production/marketing system, in which the relief of one constraint can cause another factor to become limiting. This requires a flexible approach that does not *a priori* deny the desirability of any intervention. In what follows, we are talking of emphases, not absolutes.

4) Rural development is an agriculturally led process, in which farm prosperity leads to broader rural community progress based on agroindustrial expansion, market town development and stratification, and investment in private and public infrastructure (both economic and social). This process, in turn, permits the further expansion of agriculture, but broad-based rural development cannot proceed without the initial stimulus provided by rising small-farm incomes.

Numerous studies have shown and the precepts stated above indicate that an agricultural development strategy centered on small commercial farms not only has beneficial distribution and employment effects but also is likely to be the most-efficient means of increasing farm output. Small farmers make more productive use of their land than large landowners; their operations employ more manual labor, require less investment, and generate the demand and capital for other rural investments. More than subsistence farmers, small, commercially oriented farmers respond rapidly to policy and market incentives, adopt improved technology more quickly, produce a significant surplus above household food requirements, and produce both food and industrial crops.

Strategy to achieve agriculture and rural development objectives

The LAC Bureau will meet the agricultural production and rural income objectives through a strategy that:

1) Supports the development of a viable commercial agriculture, responsive to market incentives, among the lowest 80% of farms in terms of size and gross sales. In most LAC countries, this will mean nonexclusive concentration on farming units in the 1.5-ha (4-acre) to 40-ha (100-acre) size class, with no direct outreach to the near-landless and marginal farmers who derive a high share of income from nonfarm activities and have little commercial potential, or to the larger farmers who are already significantly more productive than those in the target size category. Concentration means that we will seek policy changes, program investments, and market structures that will provide the incentives and meet the specific needs of farmers in the target size category without excluding benefits that may also accrue to farmers with smaller or larger units.

2) Focuses on policy constraints at the macro level (such as exchange rates, fiscal and monetary policy, and investment restrictions) and at the micro or sector level (i.e., interest rates, land tenure, price policy, etc.), which inhibit investment in agricultural production, processing, and marketing.

3) Supports the establishment and expansion of the private sector in product/input marketing, investment and production credit, and ancillary support services to agricultural producers.

4) Focuses on activities and policy changes that encourage the preservation of the natural resource base, which is necessary for sustainable agricultural production.

Expected benefits from the strategy

A strategy focusing on the development of viable commercial agriculture, expansion of private sector participation, continued emphasis on sector management and policy, and concern for sustainable productive use of natural resources is expected to have the following beneficial results:

1) A higher rate of growth of national output of (and income from) food and other agricultural products.

2) Additional direct farm labor employment opportunities for

members of small-farmer households and other rural residents, especially the landless poor.

3) Increased demand for capital and consumer goods, thereby stimulating rural agribusiness and retail trade and the wholesalers who supply these businesses, all of which generates additional employment.

4) An increased supply of agricultural products that will encourage the development of agro-industrial processing, generate additional employment and income in the rural areas, and provide more stable outlets for agricultural products.

5) Increased foreign exchange earnings from food and other agricultural exports, as well as a reduction in food and other agricultural imports.

It is very difficult to establish region-wide targets for progress in the above areas (except for the first) in which an appropriate target is an agricultural sector growth rate of 4% by 1988, and an average of 3.3% for 1984–88. Progress towards income and employment objectives will have to be measured in the context of specific country situations and will require periodic sample surveys. Foreign data will be monitored to determine foreign exchange earnings and savings. The small commercial farm development strategy will benefit not only farmers in the target-size group but marginal farmers as well as the landless and near-landless, who constitute more than 50% of the rural population in some countries. At the farm level, emphasis on improving productivity will benefit those marginal farmers who are able to convert to higher-value crops and more intensive land use. Likewise, programs to improve institutions, access, participation, and influence may extend beyond those with land—even to the landless through increased farm employment opportunities.

The landless and near-landless stand to gain even more from a small, commercial, farmer-led agricultural/rural development strategy through employment in off-farm rural activities stimulated by linkage and multiplier effects. We are not sanguine that this process will proceed fast enough or in itself be adequate to power the broad-based economic development required to achieve near-term full employment for the burgeoning rural labor force, which lacks the resources for farming. We believe the process can be accelerated by AID's private sector development programs to encourage agroindustry and agribusiness, and by working with LAC governments and other donors to support policies and programs that achieve, where appropriate, market town stratification, build labor-intensive rural infrastructures, and decentralize industrial activity to market town and secondary cities.

Constraints to implementing the strategy

Five important, generalized constraints to implementing the bureau's small commercial agriculture-focused strategy have been identified:

1) *Inadequate farm-level productivity of food for own consumption as well as cash crops*, the result of deficiencies in technology, market incentives, or input availability.

2) *Limitations on numbers and capability of indigenous professional agricultural personnel* to address small commercial agriculture problems, brought about both by the weakness of national educational institutions and inadequate incentives to recruit, develop, retain, and support such staff.

3) *Policies* that inhibit private sector participation and investments in all aspects of agricultural production processing and marketing, both for domestic consumption and export.

4) *Inequitable access to resources and influence*—the historical legacy of traditional socio-economic structures and policies.

5) *Destructive use of natural resources (steeplands and tropics)*—the direct result of too many people and too little concern.

Major constraints to agricultural and rural development in LAC countries and the types of policy and program activities that are appropriate for relieving these constraints are shown in Table 1 in outline form. The degree to which we will be involved in these activities in any particular country depends, of course, on the receptivity and commitment of the host government, the specific country level constraints, and other donor activities.

AID strategic response/program emphases

Five major areas of emphasis can be discerned in the LAC portfolio to address the constraints to implementing the small commercial farmer strategy:

1) *Enhancing agricultural productivity*—This initiative is directed at the first constraint—low productivity. It includes both the technology generation and transfer element that are critical to expanding small commercial agriculture in the LAC region. Bureau activities are focused on:

a) The development and strengthening of appropriate public and private national research and extension institutions that have the capacity to define and execute adaptive research priorities, network with the S&T-funded International Research Centers (IARCs) and Collaborative Research Support Programs (CRSPs), and deliver viable technology packages to the small commercial farmer. Included in these efforts are the development and strengthening of national *private* research foundations, commodity-specific producer's associations, and cooperatives, as well as agribusiness and agroindustry firms to carry out adaptive research and/or extension activities, thereby providing a supplement and an alternative to existing public sector institutions.

b) Supporting adaptive research to address the problems of low productivity of traditional/nontraditional crop and animal production systems, sustained production (including livestock in mixed farming systems) in the less-favorable natural resource areas, and crop/animal protection by the most cost-effective and environmentally acceptable means.

2) *Expansion of private sector participation*. Private farmers and their suppliers and commercial customers are the only reliable, long-term providers of the direct and indirect income and employment increases, which are our goals. We are seeking to establish the market incentives, institutional support, and policy changes essential to permit them to realize their potential contributions to broad-based rural development in a wide range of activities including technology development and dissemination, marketing, savings mobilization, and the provision of credit.

3) *Sector management (policy and education)*. This initiative is directed at fostering an appropriate agricultural policy environment and developing adequate national human and institutional resources in the agriculture sector. These constraints limit the full developmental impact of our agriculture and rural development strategy.

We will use analysis and dialogue to seek the reduction or removal of restraints on market incentives for farmers and other investors, and to make national leaders aware of the options available to them. Special attention will also be given to the employment implications of alternative agriculture and rural development policies and programs. Where necessary, we will strengthen the data analyzing, planning, budgeting, and evaluation capability of institutions involved in the policymaking process.

To increase both the quality and quantity of indigenous agricultural personnel, we will make a major effort to develop and upgrade national and regional agricultural education institutions. We will also seek to establish the management capability to use personnel and institutions effectively.

4) *Improving access to productive resources*. Small farmers' productivity is a function of access to productive resources, i.e., land, capital (credit), and inputs. Access to all 3 types of resources is problematical for most small farmers. In the past, a significant portion of the bureau's Agricultural, Rural Development and Nutrition (ARDN) portfolio was committed to improving small-farmer access to productive resources through major resource transfers such as credit and public sector infrastructure (i.e., roads, irrigation, marketing, and social services). Often these elements were incorporated in organizationally complex, multi-faceted area development projects. Unfortunately, policy issues, structural problems, and organizational deficiencies were left unresolved. In addition, the rather massive public sector involvement tended to stifle the development and participation of the indigenous private sector in credit, marketing, and input supply activities. In the case of credit, these deficiencies were responsible for low savings, rates, decapitalization of public sector agricultural banks, uneconomic allocation

Table 1. Summary of LAC agricultural and rural development strategy emphases.

Constraints	Response
Inadequate farm-level productivity of food and cash crops	
Inadequate market incentives	Policy dialogue supported by price and demand studies
	Assistance in market organization to identify markets and link farmers to consumers through assembly and distribution, processing, and export operations
Technologies unavailable, untested, or undisseminated	Improve national agricultural research capability and linkage with public/private technology development and transfer agencies
Deficient availability of productive inputs	Policy dialogue on import, exchange rate, domestic marketing policies, irrigation, seed production, production credit program, and improvement in delivery systems
General weakness of specific commodity production systems (new commodities or modernization of traditional commodities)	Install or improve commodity programs (e.g., livestock, coffee, spices)
Limitations on numbers and capability of indigenous professional agricultural personnel	
National output of professionals limited in quality and quantity	Improve professional/technical agricultural education; support LAS-PAU. EDUCREDITO, etc.
Problems in recruitment, development, support, and retention (particularly acute in research and analysis)	Policy dialogue, supported by manpower planning studies and technical assistance in public administration
Inequitable access to resources and influence to:	
Competitive markets	Market organization activities, and rural road construction/upgrading
Secure land tenure	Titling programs, land market development, policy analysis, and Farmer association/participation
Economies of scale and influence	
The agricultural credit system	Policy dialogue on terms, and procedures, studies, and seminars; institutional strengthening
Destructive use of natural resources (steeplands and tropics)	
Population pressure on land	Family planning programs and development of secondary urban centers and market towns
Inadequate conservation awareness by public and government	Mass communications programs, policy dialogue, and analytical studies
Incipient resource management institutional capability	Resource management programs including reforestation, agro-forestry, and watershed management
Incipient or negative use control policies	Policy dialogue with analytical studies on settlement, land concessions, and timber markets; tenure reform

of scarce resources, and dismal loan recovery rates, which tended to *reduce* the availability of credit to small farmers.

Our future emphasis will focus less on massive resource transfers and more on policy issues associated with agricultural credit and the establishment of mechanisms that foster the participation of private-sector institutions (including cooperatives) in the services required by small farmers. We feel these institutions can better tap indigenous financial resources and entrepreneurial talent and bring about the income and employment effects postulated above.

We will also continue to focus on the constraints to the development of small commercial agriculture caused by the lack of access to adequate land. Problems associated with highly skewed distribution of holdings, insecure tenure arrangements, and lack of access

to productive land inhibit rational land use, constrain agricultural production and productivity, and perpetuate patterns of inequitable income distribution. The feasibility of stimulating commercial land markets, as a means of improving access to land, as an alternative to land redistribution through forced sales programs, will be explored. We believe that, by providing mechanisms that permit small farmers to buy and sell land, a viable, small, commercial farmer group can emerge. Studies of the developmental effects of insecure tenancy, of improved methods of titling and registration, and of operational issues that affect these methods will be conducted. The problems that have plagued earlier reform efforts will be analyzed and a joint research effort among LAC missions, host country nationals, and U.S. experts undertaken to identify solutions and alternatives will be pursued using the S&T centrally funded Access to Resources Project.

5) *Natural resource management.* Environmental abuse has led to severe soil loss, extreme variation in water availability, siltation and shortened life of reservoirs, and flooding, with the destruction of down-stream crops, livestock, infrastructure, and human life. Rural population growth, lack of access to good land, and weak regulations have led to overuse of fragile steeplands (i.e., slopes greater than 2% to 5%) and tropical lowlands. Nearly all LAC country missions have pilot projects in natural resource management, which must be evaluated to make effective recommendations for further strategy development. A steady increase in AID support for soil and water management, reforestation, conservation, and watershed management projects is expected. There will also be increased emphasis on using the private sector to develop more economic and rational use of forest products for energy and industrial end-uses.

Opportunities for Consultants in International Agricultural Development

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Consultants from the United States have been key figures in the transfer of agricultural knowledge to developing countries. Their role in influencing and shaping the agricultural institutions of the developing countries will be important well into the next century.

But the nature of the demand is changing. In the late 1940s and 1950s, the pioneering agencies of development, such as the Rockefeller Foundation, recruited long-term staff to place overseas. These posts called for full-time specialists to take line positions in the national programs of developing countries. The expatriate specialists helped plan and carry out work needed by the developing countries while the countries were training their own people to take over. The emphasis was so strongly on direct participation that the term "advisor" to describe the individual was frowned upon and the term "consultant" was usually reserved for short-term specialists brought in to advise the expatriate teams, which were the key to the whole process. These teams were composed mostly of scientists just out of graduate school. They were able to make substantial contributions because they were carefully chosen for their competence, and because research and agricultural development was new and wide-open in the developing countries. However, there was also a need for a few highly experienced research managers to help national leaders improve institutional arrangements and to plan staff development activities.

With some exceptions, the situation now is dramatically different. Many developing countries have no need for large teams of expatriates to carry out the day-to-day research work. The kind of help they seek is more likely to be from a specialist with expert knowledge of a key area or a mid-career scientist/administrator to help develop and manage institutions. Nearly every country in Asia has a few senior long-term consultants who advise on aspects of their national research and development systems. For example, assistance is needed in setting research priorities, using modern techniques of data collection and analysis for establishing economic policies and planning manpower needs.

The demand for consultants in the senior management category exceeds the supply of qualified and available persons. One Asian country is currently seeking as many as 4 senior research managers to help develop and guide the national research system. Some will be involved in helping to improve links between research and extension divisions, between state and central government agencies, and between university and ministry of agriculture units. Others

will advise the director of the central research station and the director of the national research council.

Individuals with appropriate qualifications are hard to find. Many Americans are experienced in operating within these areas at home, but few have had to develop research or extension institutions from "scratch". It is far easier to adjust or fine tune an established system than to start a new one. To do the latter in a developing country requires a truly cooperative effort between national leaders and experienced consultants from abroad.

In Asia and Latin America, the demand for long-term consultants with expertise in specific disciplines is smaller than it was one or two decades ago. The reason is that many countries have had massive training programs over the same decades. Their own scientists are at work and are increasingly capable.

Scientists from developing countries are now prominent in the ranks of consultants helping other developing countries. Many of them have been trained at top universities in the United States, and they have ample professional experience under developing country conditions. As the interchange of scientists among developing countries grows, some opportunities for American consultants will be lost. This trend will probably shift American consultants to assignments more related to advanced sciences and management.

In Africa, the situation is quite different, more nearly like Asia and Latin America in the 1950s. Because of the acute shortage of trained people, a broad range of specialists are needed in nearly every country. In one small country I have visited, the total agricultural research staff is 2 or 3 people with BS degrees and one with a MS degree. In such situations, what is required is long-term programs of the type the Rockefeller Foundation sponsored in the 1940s and 1950s.

Although the need for long-term consultants has generally diminished, there is a widespread demand for short-term consultants. Countries in the most dire circumstances want the services of qualified consultants to help maximize the productivity of their current resources and to plan for the future. Others that have a somewhat larger base of trained staff can benefit greatly from an infusion of know-how, particularly as their consultants gain experience with local conditions. Those countries that have "graduated" (or nearly so) from needing full-time resident expatriate staff can use qualified short-term consultants in great numbers.

Participation in a developing country program at the take-off point can be a highly rewarding experience. The consultant in this situation is likely to be working with one or more dedicated young scientists who have had high-quality graduate training at home or

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