

## Chapter 8: Development in Primary Producing Countries

Broadly defined, the term primary producing countries refers to virtually all developing countries with the exception of the semi-industrialized ones, which were the subject of the previous chapter. The common distinguishing feature of primary producing countries is their relatively low degree of industrialization, as measured by such indicators as the share of manufactured goods in total production and in merchandise exports. Two subgroups of primary producing countries are analyzed in this chapter: a group of "mineral economies" and another composed of predominantly agricultural nations. In each case, the emphasis is on Middle Income countries.

### Development Issues in Mineral Economies

The mineral economies are characterized by large shares of minerals in their domestic production and merchandise exports.<sup>1</sup> Excluding those with populations of under one million, this group of countries comprises a dozen that depend principally on non-fuel mineral production, and 14 economies dominated by petroleum production. The ranks of the latter have swelled significantly in the past decade. Most of the mineral economies are in three parts of the world: Sub-Saharan Africa (for example, Angola, Guinea, Liberia, Mauritania, Nigeria, Sierra Leone, Togo, Zaire and Zambia); Latin America and the Caribbean (for example, Bolivia, Chile, Ecuador, Jamaica, Peru, Trinidad and Tobago and Venezuela); the Middle East and North Africa (for example, Algeria, Iran, Iraq, Kuwait, Libya, Saudi Arabia and Syria). A number of mineral economies with populations under one million, such as Bahrain, Botswana, Gabon, Guyana, Oman, Qatar and the United Arab Emirates, also fall in these three regions. With the exception of the capital surplus oil export-

ing nations and a few Low Income countries (Angola, Guinea, Indonesia, Mauritania, Sierra Leone, Togo and Zaire), mostly with GNP per capita above US\$200, the mineral economies are Middle Income nations. All except Indonesia and Nigeria have populations of less than 40 million, and most have less than 15 million.

A number of structural features associated with the historical, technical and institutional development of the mining industry distinguish the mineral economies from other developing countries, especially from the predominantly agricultural nations, and present these countries with a special set of development opportunities and problems. Historically, the international mining industry has been shaped by the highly uneven geographical distribution of minerals, the enormous uncertainty associated with exploring and exploiting exhaustible natural resources, and the highly capital-intensive nature of mining technology. These features have engendered the dominance of large, vertically integrated international mining firms. The highly capital-intensive and historically foreign-dominated nature of mining industries in most developing countries is the principal cause of the prevailing pattern of limited production and consumption linkages between the mining sector and the rest of the economy, as well as the associated dualism between a modern enclave dominated by mining and an underdeveloped poverty-ridden hinterland. On the other hand, the large rents<sup>2</sup> realized from the sale of scarce non-renewable resources have presented developing country governments with substantial opportunities to raise finances. Over the last two decades, these opportunities have increasingly been pursued through various forms of mineral taxation and through government participation in mining enterprises, but their realization has been com-

<sup>1</sup>The thresholds, which have been applied with some discretion, are that the share of minerals averaged 10 percent or more of gross domestic product in 1967-75, and 40 percent or more of merchandise exports in 1973-76. As with any country groupings not based strictly on geography or income, the distinctions are sometimes hard to apply.

<sup>2</sup>The concept of economic rent, indispensable to the analysis of exhaustible resources, refers to the surplus earned by factors of production over and above the minimum earnings necessary to induce their employment.

plicated by the oligopolistic character of the international mining industry and the fluctuations and uncertainties associated with mineral prices. Finally, for their development over the long term, mineral economies need to adapt their economic structures, building up other sources of income as their mineral resources dwindle and eventually are exhausted.

#### Development Experience of Mineral Economies

Between 1960 and 1976, the mineral economies grew at an average rate of 6.5 percent a year, which compares with an average growth rate of 6.3 percent recorded by all Middle Income countries (Figure 13). This aggregate performance masks significant differences in the growth rates of two subgroups of mineral economies. The oil exporting countries, which benefited from unprecedented increases in petroleum prices and exports, grew at an average rate of 6.9 percent a year, with per capita incomes growing at 4.3 percent a year. In contrast, the non-fuel mineral economies faced more cyclical conditions for their main exports and were able to achieve an average economic growth rate of only 4.4 percent over the same period,

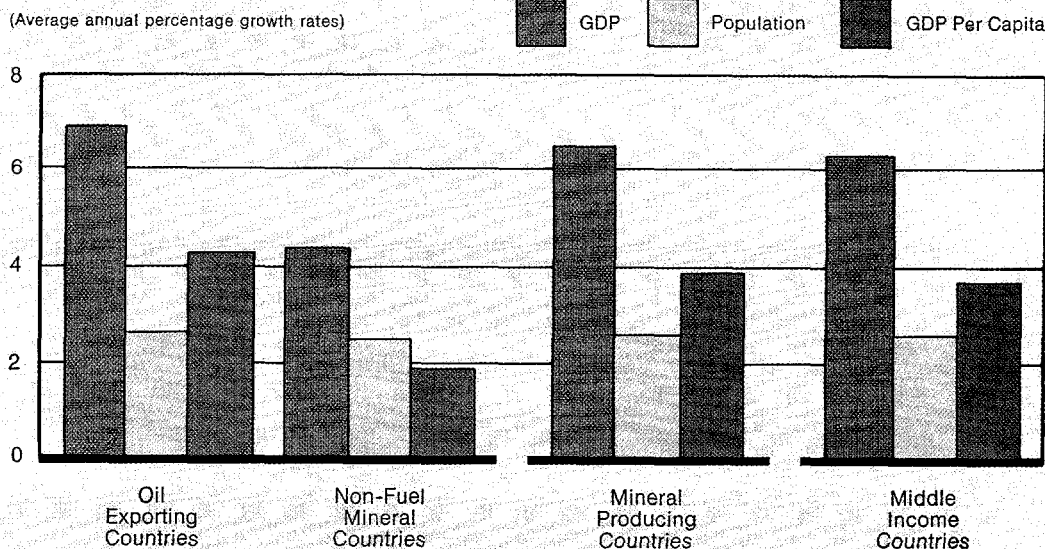
with per capita income increases averaging 1.9 percent a year.

Of the many mineral exporting countries in the contemporary developing world, few have had a long history as mineral-dominated economies, and thus the basis for drawing insights and lessons is limited. Nevertheless, the long mineral histories of countries such as Bolivia, Chile, Iran, Peru, Venezuela and Zambia, and the more recent experiences of many more nations, permit some tentative generalizations.

The essential advantage of the mineral economies over other developing countries lies in their possession of a resource that is readily converted into a large financial flow. A large mineral sector yields both foreign exchange and domestic tax resources, which are normally two of the key constraints at early stages of development. The differences between mineral economies and others are striking: in the early 1970s, in mineral economies as a group, the ratio of export earnings to gross domestic product was about twice as high as that recorded by all other Middle Income countries, while the ratio of tax revenues to production was about 50 percent higher. These extraordinary flows of foreign

Figure 13

#### Mineral Producing Countries: Comparative Growth of Gross Domestic Product and Population, 1960-76



exchange and tax receipts have permitted mineral economies to sustain much higher levels of aggregate consumption and investment than other countries at comparable stages of development. Indeed, most of the mineral economies have reached Middle Income status primarily because of the incomes generated in mining.

Large mineral earnings have not, however, been an unmixed blessing. Experience indicates that the development of a large mining industry as the leading sector in a developing country poses special challenges and problems for economic management, perhaps foremost among which are the implications of a leading sector that is highly capital intensive. The mining industry has been highly capital intensive and is becoming increasingly so, while mineral processing and related industries are also among the most capital-intensive manufacturing activities. Thus the growth of a large mining industry has tended to sharpen the technological dualism between that sector and the rest of the economy. Too often this technological dualism has spawned dualism in wages, with those in the mining sector being very much higher than in other parts of the economy. In several countries, high wages in mining are due not only to the capital intensity of mining operations and the associated high productivity of mining labor, but also to the historical and social forces that have shaped the mining sector. In the last years of the colonial era, and subsequently, foreign mining companies generally found it expedient to meet the demands for increased wages from local unionized mining labor, especially in countries such as Jamaica and Zambia where the mining labor unions were at the forefront of national independence movements. The growth of government participation in the mining companies in the post-colonial period has not significantly altered the political difficulty of controlling mining wages.

• In some mineral economies wage dualism has had severe consequences. First, the high mining wages have acted as a goal, in labor negotiations, for all other wage employees in the modern and relatively formal segment of the economy, including government workers, and thus imparted a strong upward bias to the entire wage structure in the formal sector. This, in turn, has induced rapid rates of rural-urban migration and high rates of open unemployment in the cities, as aspirants queue in the lottery for scarce high-paying jobs. Not surprisingly, the

highly dualistic development of many mineral economies has been associated with relatively inegalitarian distributions of household income and a much more limited diffusion of education and health facilities than in other countries at comparable levels of average income.

An issue of central importance for mineral economies is thus how to convert a wealth of physical resources into a labor force with the skills, education and experience required to run a highly productive, fully developed economy after the mineral wealth has been exhausted. It appears to be much more difficult for these economies to upgrade their human resources than to improve their physical infrastructure. Very few of them had an adequate nucleus of well educated people and reasonably good schools when mineral wealth was first opened up. Especially in Africa and the Middle East, even the economies richest in minerals have had to build on a labor force with low literacy rates and a population with weak educational traditions. To find suitable teachers and strengthen the educational system rapidly in such a situation, it may be necessary to bring in foreigners and foreign influences on a large scale, but, as Iran's experience helps to illustrate, doing so can be socially and politically disruptive. The alternative of building from within involves a slow process of educational improvement over generations, not unlike that in any other developing economy, with the pace of advance and the quality of results held back by the initial conditions. The closely related task of improving the health of the population, though by no means easy, appears somewhat more tractable with heavy public investment. A handful of mineral economies, notably Jamaica, Kuwait, and Trinidad and Tobago, have already achieved levels of life expectancy close to those in industrialized countries, though others lag far behind. In over a dozen mineral economies, including Saudi Arabia, life expectancy remains at 50 years or less.

The second major set of problems besetting the mineral economies springs from their tendency to neglect the development of non-mineral sectors, especially agriculture, which remains the largest employer of labor in all but a few of them. The ready availability of foreign exchange and fiscal resources from the mining sector has made it less urgent to develop other productive activities. Typically, the high incomes earned in the mining-based modern sec-

tor fueled consumption demands which were met through imports or domestically produced import substitutes. Like many other developing countries, most mineral economies nurtured import-substituting industries behind strong protective barriers. But unlike most of these other nations, the mineral economies could, because of their mineral exports, afford to bear the growing costs of excessive protection for much longer, postponing the transition to a more outward-oriented trade policy. The structure of incentives in such countries as Zaire and Zambia was biased heavily against agriculture, and most mineral economies did little to compensate for such biases through investments in agricultural infrastructure, extension, research or credit. Food crops were particularly neglected. In some countries, such as Guyana, Jamaica, and Trinidad and Tobago, agricultural production was further impeded by shortages of rural labor, which were partly attributable to the severe wage dualism in these economies.

The abundance of mineral exports permitted many countries to maintain an exchange rate that was appropriate for the high productivity mining sector, but which, in view of wage distortions and other factors, offered little incentive for the production or export of non-mineral goods. As a result, these countries achieved little export diversification (Table 37). In some, including Chile and Nigeria, agricultural exports actually dwindled from the levels of pre-mineral years.

The growing dependence on mineral exports in some mineral economies of recent origin, the slow diversification of exports in some of the mineral economies of long standing, and the characteristics of the international markets for their products, make many of the non-fuel mineral economies particularly vulnerable to insta-

bility in export earnings. Partly for this reason, as well as more general problems of economic management, some mineral economies, including Peru, Zaire and Zambia, have been prone to external debt problems. One particular aspect of sudden changes in mineral export earnings deserves special mention. If a sudden surge in export receipts is transformed too swiftly into increases in aggregate domestic demand, the resulting bottlenecks and inflationary consequences can be severe, as the experience of Iran and Nigeria between 1973 and 1976 exemplifies.

### Development Priorities for the Future

#### *Investment Strategy*

The long-term development priorities of mineral economies flow from the fundamental fact that their mineral wealth is exhaustible. Investments made during the mineral-exploitation stage of a nation should be such as to leave in place a growing, self-sustaining economy when the mineral rents wither away. Thus the appropriate sectoral choice and sequencing of investments is of paramount importance. Furthermore, because mineral rents accrue to a nation largely through the tax system or government participation in mining, the role of the state in implementing investment priorities acquires particular significance. Despite their important similarities, mineral economies vary enormously with respect to the size of population, extent of mineral wealth, stage of mineral exploitation, agricultural potential, the level of human resource development and the endowment of economic and social infrastructure, to mention only a few key features. Investment priorities vary accordingly. Some flavor of the pattern and variation of investment priorities among the mineral economies may be gained by paying particular heed to two features: population size and mineral wealth per capita. (The latter is a useful notion for illustrative purposes, though it is a very rough one, in view of the enormous uncertainties pertaining to the size of mineral deposits, the future behavior of mineral prices, changes in mining technologies, and possible innovations of substitutes for certain minerals.)

Countries with small populations and large mineral wealth, such as Kuwait, Libya and Saudi Arabia, have the best prospects for a strategy of resource-based, capital-intensive industrialization built around the domestic processing of minerals and related industries. As

**37. Mineral Producing Countries: Export Diversification, 1960 and 1976**  
(Percentages)

	Shares of Total Merchandise Exports			
	All Primary Commodities		Minerals (Including Fuels)	
	1960	1976	1960	1976
Mineral Economies	95	98	59	94
Petroleum Economies	99	99	57	95
Non-fuel Economies	86	89	67	72
Non-mineral Middle Income Countries	83	50		

many of these industries are technologically very sophisticated and require highly skilled manpower, the strategy demands early and careful planning and investment in education, training, and research and development. Since investments in education have a long gestation, at early stages it will generally be necessary to rely quite heavily on foreign expertise. These economies could also become profitable international financial centers. In most other countries industrialization based primarily on mineral processing is unlikely to be a successful strategy. However, selective opportunities exist, conditioned by such factors as the raw material cost shares of such industries, the availability of essential complementary inputs such as natural gas and hydro-electric power, and barriers to entry in prospective foreign markets. These last are of particular concern in iron, steel, aluminum and copper.

The sharpest contrast to the small, richly endowed countries is offered by the large nations with low mineral wealth per capita, notably Indonesia, Nigeria and Zaire. In these countries, agriculture remains the largest source of incomes and employment, indicating correspondingly high priorities for investment in agricultural infrastructure, extension, research and credit. Large and growing numbers of non-agricultural workers and potentially large domestic markets for manufactures also indicate the need for rapid development of labor-intensive industry. These are also the countries that can least afford to emulate the past policies followed by some mineral economies, in which incentives, wages and consumption have been allowed to evolve as if mineral resources were not depletable.

The investment priorities of other mineral economies fall between these two extremes. Few can afford to neglect agriculture. The larger, better endowed countries, such as Iran and Morocco, can expect greater opportunities for the development of efficient import-substituting industries, while the smaller, relatively mineral-poor nations, such as Peru and Syria, will need to give greater attention to developing labor-intensive manufacturing for export, if they are to achieve the transition to a growing and diversified post-mineral economy. Virtually all mineral economies need to make vigorous efforts to widen and deepen their limited stocks of social and economic infrastructure.

These views on sectoral priorities receive

some support from the recent record of mineral economies. A few countries such as Algeria, Iraq and Venezuela, which have deployed their mineral earnings to invest in human resources and not neglected agriculture, have strengthened the basis for diversifying their economies. Nations such as Bolivia, Zaire and Zambia, by contrast, have tended to neglect their non-mineral sectors, resulting in low and erratic growth punctuated by periodic balance of payments crises, and little economic diversification.

#### *Policies to Appropriate Mineral Rents*

The importance of investment strategy, especially public investment strategy, in mineral economies derives in part from one of their more distinctive features: the potentially strong fiscal linkage between mining and the rest of the economy. The strength of this fiscal linkage in practice depends on the willingness and ability of developing country governments to tax or otherwise participate in the incomes originating in mining. The mining industry in most developing countries is characterized by the presence of large transnational corporations and by the existence of a substantial element of rent in the market value of minerals. These two facts imply that mineral economies must pay particular heed to mineral taxation, participation in the mining industry, and negotiations with transnational mining corporations. These complex tasks constitute special challenges.

In theory, the objective of mineral economies is simple: it is to maximize, in the long run, the appropriation of all rents, while allowing the investor to earn the return necessary to induce him to invest. In practice, this objective is extremely difficult to achieve. In the first place, the identification of mineral rents is hampered by a number of factors, including the oligopolistic nature of the international mining industry and the associated lack of open markets for many minerals; developing countries' limited knowledge of the mining industry and mineral reserves; difficulties in evaluating investors' perception of risks; and uncertainty with respect to future mineral prices and technologies. Second, even if these problems did not exist, choices would still remain as to the rate of mineral exploration and exploitation, and how these should be conducted in a given institutional environment. Mineral economies have adopted very different approaches to these pressing policy issues. As with investment strategy, there

is no single, universally applicable set of desired policies, but experience suggests some guidelines for the future.

In principle, the simplest way to capture all rents is for a mineral economy government to own and run the mines. But few mineral economies currently possess the managerial, technical and marketing skills needed to substitute fully and efficiently for the transnational corporations that have historically dominated the industry. As these skills are developed over time, governments are likely to participate increasingly in mining. Such participation speeds the necessary accumulation of knowledge about the industry, the nation's mineral reserves, and its long-term needs and capacities for mineral exploration and exploitation. The acquisition of practical knowledge on mining and mineral processing can also be accelerated through greater exchange of information among developing economies and joint research and development efforts. Meanwhile, the role of transnational corporations is likely to remain significant in most of these countries, and so, too, is that of mineral taxation.

Mineral taxation takes many forms. The oldest—royalties—has a number of serious defects, but its assurance of stable revenues and its ease of administration argue strongly for its use as a supplement to other forms of taxation. Taxes on income and excess profits can be more finely calibrated to capture mineral rents, and entail few distortions in the allocation of productive factors. These features commend the greater use of such instruments in a number of mineral economies that have so far neglected them. The spirit of income and profits taxes is maintained, while the advantages of private operation and reduced political risks are retained, in production sharing and production contracting arrangements such as those used in Indonesia and Peru; however, these arrangements are not finely tuned to rents and require extremely skillful negotiation and supervision. Finally, recent problems of absorptive capacity in countries such as Iran and Nigeria emphasize the need for a judicious assessment of the rate of mineral exploitation, and, possibly, for investing mineral earnings in financial or real assets abroad instead of using them immediately to fuel consumption.

#### *Other Development Measures*

The preceding discussion has emphasized the

importance of improving the appropriation and investment of mineral earnings in these economies. The agenda of development concerns and policies does not cease there. Many of them, such as the need to mobilize more domestic savings and the desirability of extending low-cost basic education and health services more rapidly to the rural and urban poor, are shared by other developing countries and have been discussed elsewhere in this report. This is also true of the need for more rapid and broadly based agricultural growth if rural poverty is to be alleviated. This section thus confines itself to some concerns seen to be of particular significance to mineral economies.

As was argued above, in a number of mineral exporting countries excessively high wages in the mining sector have widespread distortionary effects. Two distinct elements of this situation call for policy intervention. First, wage increases in mining and mineral processing need to be moderated. Second, wages in other modern formal sector activities should reflect productivity trends in those sectors, and be only minimally influenced by wage developments in mining. Both these objectives may be pursued through clearly defined incomes policies. The enormous political difficulties of implementing such policies have been demonstrated by past experience in countries such as Bolivia, Jamaica, Trinidad and Tobago, and Zambia. But the serious economic costs of failing to do so justify continued efforts. Incomes policy initiatives may yield particularly high dividends in those countries with relatively short mineral histories, where mining industry labor has not yet established strongly articulated vested interests.

The other policy instrument that exerts a pervasive influence on the mineral economies is the exchange rate. It was noted earlier that the exchange rate warranted by the mineral sector and the general balance of payments situation—typically dominated by mineral exports—normally does not provide adequate incentives for the development of non-mineral production and exports. To provide such incentives there are several possible permutations of exchange rate policy and foreign trade taxes, the appropriate choice of which can only be made in specific country contexts. The fundamental objective of such a choice, however, should be a foreign trade and exchange rate regime that facilitates the diversification of exports and production. Such a diversification will be essential for most

mineral economies if they are to move successfully into a dynamic post-mineral future.

Finally, some mineral economies are particularly vulnerable to instability in their export earnings and fiscal revenues. Part of the remedy lies with the compensatory financing schemes, like that of the International Monetary Fund and Stabex, as well as with international buffer stock arrangements that are presently being discussed in international forums. In addition, individual mineral economies can institute reserve funds, which are accumulated when export prices are high and drawn down during recessions.

### Structural Change in Predominantly Agricultural Nations

The predominantly agricultural developing countries include some of the Middle Income nations of West Africa, Southeast Asia and Latin America, the smaller countries of South Asia, the Low Income nations of Sub-Saharan Africa and the large densely populated countries of Low Income Asia. Since the development issues facing the last two groups were extensively discussed in *World Development Report, 1978*, they receive little attention here. Instead, this section dwells on the development experience and priorities of countries such as Burma, El Salvador, Ghana, Guatemala, Honduras, Ivory Coast, Malaysia, Paraguay, Sri Lanka, Sudan and Thailand. Apart from Burma and Thailand, these nations are small, with populations of less than 20 million. While the

majority are Middle Income, some Low Income nations have been retained in the set, since in some cases their present per capita income levels are more a reflection of past lost opportunities than of markedly different initial conditions around 1950. Furthermore, much of the development experience of the Middle Income members of the group can provide useful insights for the Low Income ones.

### Shared Development Problems and Varying Responses

The development performance of these countries has varied tremendously, with 1960-77 average annual growth rates ranging from 2 to 3 percent in such countries as Burma and Ghana, to 7 to 8 percent in others, notably Ivory Coast, Malaysia and Thailand. Such contrasts result partly from differences in initial sociopolitical conditions and resource endowments, partly from the varying incidence of changes in the international trade and payments environment, and partly from clear differences in the nature and quality of their policy responses.

### Initial Conditions and Common Problems

By 1950, most of these economies had clearly established themselves as specializing in agricultural exports. In most of them exports were equivalent to one-fifth or more of gross domestic product. Typically one or two commodities dominated merchandise exports in each country: for example, rice in Burma, cocoa in Ghana, coffee and cocoa in Ivory Coast, rubber and tin in Malaysia, tea and rubber in Sri Lanka, and cotton in Sudan. In most cases, the export spe-

38. Basic Indicators for Selected Predominantly Agricultural Countries

	Population (millions)	GNP Per Capita (US Dollars)	Average Annual Percentage Growth 1960-77		Percentage of Manufac- turing in GDP		Percentage of Labor Force in Agriculture		Percentage of Manufac- tures in Merchandise Exports	
			1977	1977	GNP Per Capita	GDP	1960	1977	1960	1977
Burma	31.5	140	0.9	3.1	8	9	68	55	1	1
El Salvador	4.2	550	1.8	5.3	15	15	60	47	6	..
Ghana	10.6	380	-0.3	2.1	10	11 <sup>a</sup>	64	54	10	1
Guatemala	6.4	790	2.8	5.8	..	..	67	57	3	..
Honduras	3.3	410	1.5	4.4	13	17	70	63	2	10
Ivory Coast	7.5	690	3.3	7.2	7	12	89	82	1	8
Malaysia	13.0	930	3.9	6.9	9	18	63	44	6	16
Sri Lanka	14.1	200	2.0	4.1	11	15	56	54	2	14
Thailand	43.8	420	4.5	7.7	11	20	84	77	2	19

<sup>a</sup>1974.

cialization reflected several decades of cash crop development, taking advantage of abundant fertile land and often under colonial rule. While some of this development was based on plantations, especially for tree crops, in the majority of countries smallholders had already established a substantial role in cash crop production by the middle of this century. The bulk of modern economic activity, private and public, was generally built around the export trade in cash crops. Domestic manufacturing industry was relatively undeveloped, usually amounting to less than 10 percent of domestic production. Though the countries differed in their stocks of indigenous educated and skilled labor and entrepreneurs, none was abundant in such human resources.

During the 1950s, many of these predominantly agricultural countries faced formidable tasks of nation building as they gained independence from colonial rule. Foremost among the development challenges and choices they faced was whether to continue specializing in export agriculture or to shift their priorities and resources in favor of industry. For some of them, primary export specialization held unpalatable associations with the old, colonial, division of labor. Furthermore, the tremendous variation in international commodity prices during the Korean War and its aftermath emphasized the uncertainties associated with reliance on these markets. Many countries feared a secular decline in their commodity terms of trade. Second, with steady or rising fertility, combined with declining mortality rates, the growth of population accelerated, swelling the need for jobs, for food, and for investment in social infrastructure. The case for purposive population policies gathered strength. The growth of population and associated concerns with food supply accentuated the need to reverse the historical neglect of food crops and traditional agriculture in the policies and programs of many of these nations. Third, the burgeoning demand for educated and skilled people meant that choices had urgently to be made on the priorities for expenditure on education and training. Where indigenous technical, managerial and entrepreneurial skills were in particularly short supply, the merits of relying on foreign skills and firms (or on those of local ethnic minorities) became a significant policy issue. Finally, as accelerated development became an avowed goal of all governments, crucial issues arose regard-

ing the extent and form of state intervention in the economy.

#### *Policy Responses and Experiences*

It is perhaps no coincidence that the countries that developed fastest were those which chose to deepen and broaden their specialization in agriculture. This was not because the gloomy predictions about commodity prices were proven wholly false by events. All too often they were accurate. Rather, countries that continued to give priority to agriculture managed to expand production and exports, to more than compensate for the income lost due to adverse movements in their commodity terms of trade. Their continued specialization in agriculture was accompanied by deliberate and sustained diversification and modernization within the sector.

Malaysia and Ivory Coast are prime examples. In Malaysia, replanting and new planting increased the output of rubber from smallholdings at an average annual rate of about 7 percent between 1960 and 1975, while at the same time major programs of diversification into oil palm and timber were carried out. In Ivory Coast increases in the production of the traditional exports, coffee and cocoa, were accompanied by substantial diversification into timber, oil palm, rubber, coconut, pineapple and bananas. Nor did these countries neglect smallholder food crops. In Malaysia, new investments in paddy production, introduction of new high-yielding varieties and a favorable producer price policy enabled the country to supply an increasing proportion of its rice consumption: from about 60 percent in 1957 to over 90 percent in 1972. In both countries, and other more modestly successful nations such as Guatemala and Thailand, the key elements of successful agricultural diversification and modernization have been heavy public investment in irrigation and new land development, maintenance of remunerative producer prices, and well staffed, dynamic institutions for agricultural research, credit and distribution of inputs.

In contrast, countries such as Burma, Ghana and Sri Lanka tended to neglect their existing agricultural assets and achieved little success in diversifying into new cash crops or supporting the traditional food crop sector. Burma's rice sector languished from policy neglect while the country's rich potential for timber remained underdeveloped. Cocoa production in Ghana suf-



ferred from declining incentives and food crops received little policy support. Inadequate producer incentives and policy uncertainties hurt the tree crop sector in Sri Lanka, resulting in little new investment or replanting of tea, rubber or coconut. This neglect of agriculture was not offset by any substantial diversification into manufacturing, even though in some countries rapid industrialization was a key policy objective, as in Ghana. Indeed, a striking feature of the development experience of the predominantly agricultural countries is the fact that those nations that made the best use of their agricultural potential were also the ones which forged the strongest mutually beneficial links between agriculture and industry and achieved the swiftest structural transformation.

Several factors underlay the relatively successful industrialization efforts of Ivory Coast, Malaysia and Thailand. First, the rapid and broadly based expansion of agriculture generated substantial increases in rural incomes. These provided a ready and buoyant market for manufactured consumer goods and agricultural inputs such as fertilizer and farming equipment, which in turn contributed to increases in agricultural productivity. Second, the growing supply of low-cost agricultural produce sustained the rapid development of such processing industries as sawmilling and other wood products, food processing, rubber goods and palm oil production. Third, the rapid growth in primary export earnings was able to finance the growing requirements for capital and intermediate goods imports of an expanding industrial sector. Fourth, the protection offered to manufacturing activities was relatively modest and discriminating, avoiding most of the costs of excess protection so frequently incurred in developing countries. Comparatively outward-looking trade policies have facilitated the rapid growth of manufactured exports in recent years. Fifth, these countries recognized the importance of high level skills and entrepreneurship and, by and large, fostered a policy environment that permitted these to flourish, even when the requisite skills came from abroad or from local ethnic minorities. Sixth, while these nations had relied heavily and successfully on public investment and other forms of government support for their agricultural development, they desisted from setting up numerous state-run manufacturing enterprises, preferring to support the growth of industry through infrastructure investments,

a favorable trade and fiscal policy environment, and development finance institutions. Finally, industrialization in these countries benefited from the cumulative dimension to success: high and steady economic growth rates have permitted a steady rise in domestic savings which, together with external capital, could finance the investment necessary for balanced growth of agriculture and industry. The slower pace of industrialization in other predominantly agricultural countries has been largely due to the absence of some or all of these features.

The growth of population accelerated in the 1950s in all the predominantly agricultural countries. Population growth rates remained high during the period 1960-77, with a continued acceleration in some countries. The demographic trends showed marked geographic differences. The characteristically high birth rates in African countries showed little change and, coupled with continued declines in mortality, led to an acceleration in population growth. There were larger declines in fertility in the predominantly agricultural Latin American nations, but as these were usually outweighed by sharper falls in death rates, the rate of population growth went up. The Asian countries, notably Burma, Malaysia, Sri Lanka and Thailand, experienced the sharpest declines in fertility, and in the last three countries there was an associated decline in the rate of population growth.

The observed fertility declines have been attributed to several factors, including improvements in general social and economic conditions and the spread of family planning services, though it is not possible to assess the relative significance of these factors with any precision. Except for Ghana, none of the African and Latin American countries of this group had instituted government family planning policies by 1970; El Salvador and Guatemala did so in 1974 and 1975, respectively. Malaysia and Sri Lanka launched their family planning programs in the mid-1960s, though much of the dramatic reduction in fertility in Sri Lanka is generally attributed to the rapid diffusion of improvements in education, health and nutrition, which resulted from the country's heavy emphasis on mass-oriented social expenditures. Though the government family planning program in Thailand was not begun until the early 1970s, by 1977 over 30 percent of the married women of child-bearing age were estimated to be contraceptive users.

### **Challenges for the Future**

In predominantly agricultural nations that have tended to bias incentives and resource flows against broadly based agricultural development, the key priority is to reverse this historical tendency. The policies best suited to effect this change will vary greatly across countries, according to their resource endowments and sociopolitical conditions. For example, countries such as Burma or Sudan, where land is relatively abundant, can seek substantial production increases through acreage expansion. Their main concern will be to ensure that large capital-intensive agricultural schemes do not preempt resources and markets from traditional smallholders. In economies with little unused arable land, such as Sri Lanka, agricultural policies will have to stress the efficient intensive use of the existing cultivated area. Output increases may be sought through investments in irrigation, feeder roads and research, the spread of improved seeds, fertilizer and pesticides, and the inculcation of better cropping practices.

Some of the Central American republics face particularly difficult tasks of reducing the traditional dualism between the large commercial farms producing cotton, sugarcane, beef and bananas on fertile coastal lands and the relatively neglected peasant sector, engaged largely in subsistence farming on poor upland soils. Rural poverty and population pressure in the upland areas of El Salvador, Guatemala and Honduras have exacerbated problems of soil erosion and deforestation. Greater emphasis on programs to support smallholder development would reduce rural poverty and ease the formidable task of conserving and managing the valuable forest resources of these countries.

Some recent changes augur well for the future. In many of these countries there have been marked increases in producer prices in the last five years, though the effects of such increases on farm incomes and incentives have been greatly reduced by general inflation. In Ghana, two large projects for rehabilitating and replanting cocoa have recently been launched, while since 1972 the government has improved incentives for other crops including food. The incentives for agricultural exports have improved in Burma as a result of the recent devaluation, increases in producer prices and a partial decentralization of the state monopoly for export trade. The mid-1970s saw the enactment of new laws for agrarian reform in El Salvador and

Honduras and the acceleration of efforts to support smallholder development in Guatemala.

In several agricultural countries, the manufacturing sector is highly protected and subject to very detailed and comprehensive licensing regulations and price controls, which have tended to spawn high trading profits and inhibit industrial efficiency. Some reduction in protection and regulations could open up this sector to greater competitive pressures and facilitate the growth of small- and medium-scale enterprises, which frequently forge strong mutually beneficial links with the agricultural sector. In countries where government-owned manufacturing enterprises are important, there is a clear need for greater cost consciousness, autonomy and accountability among managers.

Those economies that have developed slowly are in greater need of active population policies. For one thing, these countries cannot rely on significant declines in fertility stemming from rapid overall development. For another, these are the nations which can least afford to feed, house, educate and employ a rapidly growing population. The recent successes of the Indonesian family planning program indicate that well conceived and vigorously implemented population policies can significantly reduce fertility, even in relatively difficult social and economic conditions. To the extent that the spread of basic education and health services speeds the decline in fertility, as appears to have been the case in Sri Lanka, the arguments for low-cost provision of these basic public services are reinforced.

Nations that have already exploited their agricultural potential to advantage face a somewhat different set of challenges in the future: while there is still a strong need to maintain the dynamism of agriculture, the large non-agricultural segment of the economy also commands attention. Within agriculture it is increasingly important to orient policies and programs in favor of smallholders and others of the rural poor. Though these groups have benefited from the past growth and diversification in agriculture, substantial numbers of them remain in poverty, and as the average incomes in these countries continue to increase, the poor merit greater attention from public policy.

Ivory Coast, Malaysia and Thailand have already made great strides in industrialization and manufactured exports. As their industrial struc-

tures grow more complex they will need more sophisticated skills. With time they can increasingly diversify their manufacturing sectors from agricultural processing and simple labor-intensive manufacturing into more demanding, skill- and technology-intensive areas of production. This suggests giving early attention to the creation of the requisite skills and to the options for judicious encouragement of the domestic production of capital goods. Now that the manufacturing sector is well established, these countries can contemplate reductions in the modest protection conferred by their present trade and fiscal policies, though the case for selective special treatment of infant industries will remain valid.

The search for manufactured export markets will continue to require dynamism and perseverance, especially if the international trading environment becomes clouded by increased protectionist actions in the industrialized world. These predominantly agricultural countries still face significant export opportunities in processed timber and other wood products, leather goods and rubber products, and opportunities in textiles and clothing could expand if industrialized country protection in these categories were reduced. In sum, the prospects for further industrialization in these countries are intimately linked to developments in the international trading arena.