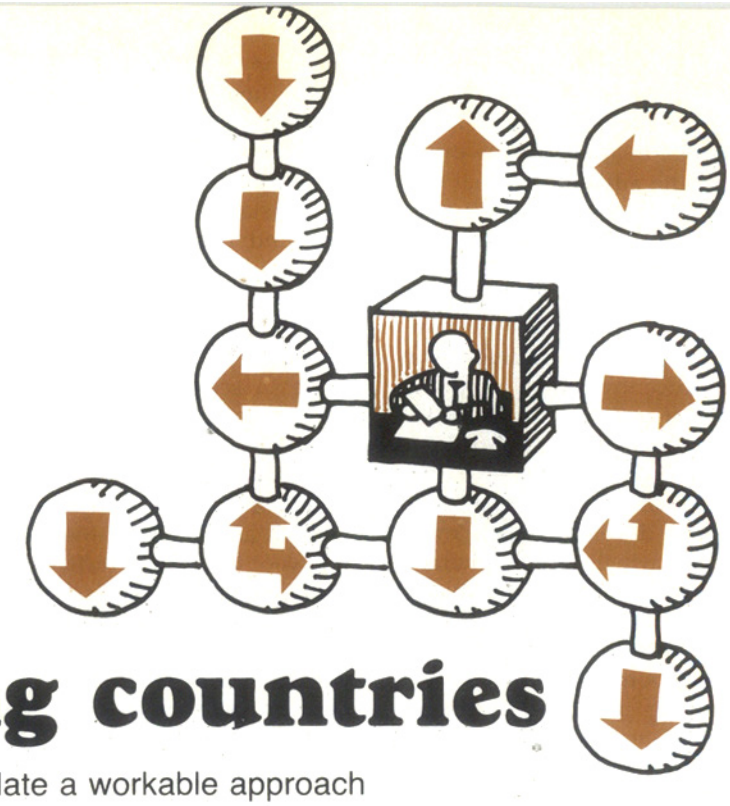

Planning in developing countries

Using the lessons of experience to formulate a workable approach

Ramgopal Agarwala

During the last 30 years, most developing countries have attempted to accelerate growth through national economic planning. Since 1950 they have formulated more than 300 plans, varying somewhat in intentions and enormously in achievements. Although a neat and precise classification of these is obviously difficult to derive, they can be divided into three broad types. The first is the comprehensive planning approach, which has been strongly influenced by the Soviet example and has been attempted widely in Asia, eastern Europe, and northern Africa. The second is the indicative planning approach, which has been strongly influenced by the Western European experience in the postwar period and has been attempted in Southeast Asia as well as in parts of Africa. The third type of plan is largely formal (even ritual) and is typical of sub-Saharan Africa and Latin America, where planning was largely inspired by external assistance agencies.

Comprehensive planning

Almost all the socialist economies of Europe and Asia drew their inspiration for planning from the U.S.S.R. Initially, their emphasis was on achieving centrally planned material balances of inputs and outputs and allocating them among firms. However, problems with such planning accumulated, and countries switched to varying degrees of allocation via markets and prices. Yugoslavia started the process in the 1950s, Hungary followed in the 1960s, and China in the late 1970s. In recent years, even the U.S.S.R. has been moving away from its earlier emphasis on material balances and administrative allocations.

Among mixed economies, India was a pioneer in development planning. Even before independence in 1947, the Indian National Congress Party had formed a planning committee, which produced several unofficial plans. The colonial government also set up a Planning and Development Department, which published a 5-year plan and a 15-year perspective plan. After independence, planning was taken up with all seriousness. Prime Minister Jawaharlal Nehru was an ardent advocate of planning for the modernization of India. P.C. Mahalanobis and P. Pant were the key figures in developing the techniques of planning, particularly in the areas of heavy industries and sectoral balances; they and several other officials visited the U.S.S.R. to learn from its experience.

The approach was global and *dirigiste*. The objective was to manage national resources—both public and private—to meet the national objectives of growth and minimum consumption needs. Interindustry analysis was used to determine sectoral investment allocations and output targets. Administrative fiats were used not only to direct resources as desired but also to divert resources from low priority activities through a detailed system of licensing and production quotas.

In practice, of course, the vision of planners could not be fully implemented, but the reasons were not recognized for what they were—inherent weaknesses of the "blueprint" approach. Planners thought that with greater technical sophistication and administrative and political will, planned allocation would be feasible. Indeed, despite some ups and downs, the basic confidence in comprehensive and *dirigiste* planning continued in India until the 1970s. Only recently has there been some move toward allowing a greater role for markets and prices in the allocation of resources.

Neither Pakistan nor Turkey laid much emphasis on planning in the 1950s. Their economic performance in that period was poor and was perceived to be partly due to the absence of plans. As a result, the 1960s witnessed a surge of planning; both countries followed the centrally planned approach but greater use of prices was permitted than in India. In the face of the economic difficulties of the 1970s, however, both countries moved away from central planning and placed even more emphasis on prices and markets.

The more comprehensive study on which this article is based is published by the World Bank, under the title Planning in Developing Countries: Lessons of Experience, *as Staff Working Paper No. 576. Copies are $3 and can be ordered from World Bank Publications, P. O. Box 37525, Washington, DC 20013 USA.*

Bangladesh, on the other hand, started with tremendous political enthusiasm for central planning, backed by a considerable technocratic capacity to apply it. However, partly because of the adverse external environment, its First Plan (1973–1978) was largely a failure, a dramatic demonstration of the inherent political, technical, and administrative weaknesses of this type of planning in a poor and aid-dependent economy. In the ensuing years, Bangladesh has switched to concentrating on planning in key sectors, such as food, and to making greater use of markets and prices elsewhere.

The East Asian economies of Japan, Korea, and Singapore developed their own brand of planning, which can be characterized as comprehensive cooperative planning. As in South Asia, the approach was geared to managing national resources—thus the focus was comprehensive. However, the Confucian traditions of these countries allowed them to develop a unique approach combining partnership with pragmatism. The private sector and government designed long-term strategies as well as short-term action programs on the basis of consultation and cooperation. With fewer postcolonial inhibitions than South Asia, these countries managed to be pragmatic about the role of prices, the private sector, and foreigners. Their plans were characterized not by technical sophistication or strict adherence to targets, but by consultations and flexibility.

Indicative and formal planning

In Southeast Asia—Indonesia, Malaysia, the Philippines and Thailand—planning was weaker than in South or East Asia. The Colombo Plan initiated in the early 1960s and the international aid agencies provided the initial incentive for planning. Plans were geared more to macroeconomic balances than to sectoral consistency. Adherence to plans was weak, not only because of inadequate political and administrative support but also because of the readiness to adjust to changing circumstances. The indicative planning approach also influenced the francophone countries of Africa.

In much of sub-Saharan Africa and the Caribbean, planning was largely foreign-inspired and often managed by expatriates. In several former colonies of the United Kingdom—Ghana and Tanzania were particular examples—the colonial administration had formulated development plans before World War II. During the war, many colonial governments were, of necessity, doing some planning to allocate scarce resources. After the war, the socialist government in the United Kingdom insisted on plans under its Colonial Development and Welfare Act of 1945. Bilateral as well as multilateral aid agencies not only encouraged planning but also provided technical assistance for preparing the plans. France and Belgium also formulated development plans for their colonies and provided technical assistance for plan preparation after independence.

By and large, these plans were comprehensive in scope, yet indicative in their economic targets—apart from those for government expenditure, which were directive. Even so, the political support for planning was weak—except in a few countries such as Botswana and Malawi—and plans were largely ineffective. In addition to the inherent weaknesses of centrally directed planning that are discussed below, most African and Caribbean countries had a weak data base, a shortage of planning expertise, and weak administrations.

Latin America was the slowest region to embrace formal planning and to publish any plans. The import substitution strategy inspired by Raul Prebisch (and the Economic Commission for Latin America) was the core of their development effort. More attention seemed to be paid to sectoral and project planning and less to central planning than in Asia. The ECLA was a strong proponent of planning but made little headway. It was only with the launching of the Alliance for Progress in 1961 that most countries elaborated formal plans to qualify for aid. The consensus is that plans in Latin America had very little influence on economic decision making; in fact, Mexico, whose economic performance in the 1950s and the 1960s was among the best in Latin America, did not have any plans at all.

Experience

The degree of success achieved by planning is extremely difficult to assess. Planning has many purposes—some stated, some unstated. To the extent that plans aimed to mobilize aid, they served their purpose well, even if the programs were not implemented nor targets reached. To the extent that plans also served as an instrument for mobilizing public support for national goals, providing interministerial coordination on policies and programs, and putting greater emphasis on economic analysis, the *process* of planning itself was sometimes effective, irrespective of what happened to the implementation of the plan. Sometimes, too, plans were geared to defining a broad strategy (a "vision") and had no detailed implementation schedule, leaving the details of action programs to be determined as the situation unfolded. Similarly, the fact that targets were not reached does not necessarily indicate failure because changed circumstances might have made the departure desirable. In fact, in the successful cases of development, such as Japan and Korea, plans were neither detailed nor rigidly adhered to. Strictly speaking, the only valid criterion for judging the impact of plans is whether performance would have been better or worse in the absence of plans, and that is obviously difficult to assess.

Although the impact of planning cannot be fully assessed, the growing disillusionment with it, particularly with comprehensive *dirigiste* planning, is noteworthy. In many cases, plan targets have been exceeded, but often plans failed to achieve balance even in key sectors such as power or transport. In general, the poor implementation of plans has also clearly undermined their credibility even as an instrument for mobilizing political support. Also, by its nature, planning introduced certain biases—in favor of overambitious goals, overinvestment by the public sector, in large or new projects, and in administrative fiats. In many cases these biases proved costly.

A review of the experience of the 1970s reveals that the best performers were neither the countries that attempted comprehensive, *dirigiste*, planning (such as Bangladesh, Ethiopia, India, Sri Lanka, and Turkey) nor those (such as Argentina, Chile, Ghana, Jamaica, and Nigeria) that paid little attention to planning. Rather, the countries that performed best (such as Korea, Malawi, Malaysia, Colombia, Ivory Coast, and Kenya) by and large relied on streamlining incentives for guiding the private sector, but also provided a macroplanning framework for their public investment programs.

The literature on planning has dealt with various problems of comprehensive Soviet-style planning, particularly those arising at an early stage of development. Typical difficulties are a weak data base, a shortage of well-trained staff, inadequate cooperation from other ministries, and poor links with budgeting and evaluation processes. With additional resources, these problems can be alleviated over time. More serious are three types of fundamental problems—technical, political, and administrative.

Experience has revealed the inherent limitations of the technocratic central planning blueprint in a rapidly changing environment. Available analytical techniques are just not able to cope with the complexity of economic change and produce plans that are continually up-to-date, relevant, and comprehensive. Investment planning based on input-output models has fallen foul of unforeseen changes in technical co-efficients and demand patterns. Simi-

larly, manpower forecasting has been highly inaccurate because of the difficulties in specifying particular types of skills and in projecting demand for them over a long period and neglect of labor *market* analysis in these plans. These fundamental weaknesses are unlikely to be cured by any foreseeable improvement in data or analytical techniques. Obsession with efforts to improve comprehensive programming capacity diverts attention from its inherent weaknesses and resources from more practical uses of economic policymaking. The alternative approach to growth that makes greater use of markets and prices generates less formidable technocratic problems and, as experience shows, allows more efficient adjustment.

From a political point of view, the problem with central planning is that it constrains the economic choices that the politicians see as their prerogative. The clarity and certainty sought by comprehensive plans conflict with the flexibility and vague goals that are often the lifeblood of politics. In the real world of politics, attempts to draw up a detailed blueprint risk confrontation with political interests and can easily become counterproductive.

There are also inherent administrative limitations to applying such blueprints. For one thing, in most developing countries, a great many economic decisions are made by the private sector and are outside the control of the administration. Even where the administration is effectively in control of the economy, the objectives of the plan are not always shared by the bureaucrats implementing it. Deliberate obstruction and distortion by bureaucrats—as individuals and as sectional groups pursuing their own interests—lead to bureaucratic failures that are even more serious than market failures.

Trends and lessons

As the limitations of planning—both circumstantial and inherent—have become clearer, many developing countries have moved away from comprehensive, *dirigiste*, plans. Particularly in the 1970s, when the world economy was subjected to severe shocks, the limitations of such planning became more and more obvious.

It is interesting to note that this trend is quite different from that visualized by earlier planners. For example, Albert Waterston concluded from an early (1965) review of the planning experience that plans would evolve according to natural stages that mirror the stages of development—first, plans concentrate on project preparation in the early phase of development; next, they develop public investment programs as the government sector develops; and eventually they become comprehensive to include the emerging private sector. Another assumption of the 1960s was that implementation needed greater attention than the formulation of plans. Experience, however, seems to have followed a different path. Countries such as Korea and India have moved away from comprehensive, *dirigiste*, planning despite their higher stage of development and increasing technical expertise. Moreover, successful cases of development—such as Korea and Japan—are distinguished by the flexibility of their planning, which suggests that strict adherence to plans may not be a virtue in a changing situation. There is a growing realization among developing countries of the limitations of econometrics as an analytical tool, and a growing appreciation of the power of prices and markets, and of the importance of consultations, selectivity, flexibility, and coordination.

Incentives. A key lesson from the experience with planning is that the future is unknown and largely unknowable; planners should try to forecast what is necessary for decisions today. One important aspect of policymaking that does not require forecasting, but that can have large benefits in terms of efficiency, is streamlining incentive systems. There is strong evidence to suggest that policies leading to high distortions in prices and incentives also lead to significant losses in growth and do not necessarily produce benefits in terms of equity. More specifically, developing countries with relatively high growth rates have, in varying degrees, avoided major appreciation of the real effective exchange rate; kept the effective protection rate of manufacturing relatively low (below 40 percent) and fairly even among products; avoided the high taxation of agriculture that would result from holding down producer prices; kept interest rates positive in real terms and avoided real wage increases not justified by rising productivity; applied cost recovery principles in the pricing of infrastructure services; and avoided high and accelerating inflation.

The evidence of the 1960s and 1970s strongly suggests that nothing is more critical for economic progress than the skillful management of this interconnected system of prices and incentives. Many recent plans do, in fact, give much greater attention to prices and markets. For example, Korea's Fifth Plan (1982–86) makes the greater use of markets and prices its central focus. Plan projections—even of exports—are treated not as targets, but as forecasts, indicative of planners' best judgments. India's Sixth Plan (1981–85) has an extensive discussion on price policy.

Public investment. Appropriate prices help in the efficient allocation and utilization of resources in both the private and public sectors. However, governments do need to plan public investment carefully and in detail. To ensure the effective planning of public investment and to give guidance to the private sector, countries must rely to a certain extent on medium- and long-term forecasting. The art here lies in identifying the critical minimum level of forecasting necessary for these purposes. Most important, the variables, such as GDP, savings, investment, public revenue, public expenditure, exports, imports, foreign capital inflows, and so on, need to be projected to provide an informed macroeconomic and financial framework for decision making. As far as sectors are concerned, forecasts in a few key areas such as power, transport, and energy are more useful than detailed forecasts of sectoral and subsectoral outputs and investments. In particular, extensive medium-term targeting of outputs and investments has not proved useful. The emerging trends point to a need for combining the programming of public investment with forecasting (*not* targeting) for the private sector.

Experience suggests that many developing countries need to change the approach to the programming of public investment programs. The typical comprehensive planning approach is to formulate medium- and long-term output targets, work out the investment requirements for meeting them, and then to decide which sectoral investments should be undertaken by the public sector. Many countries have found, however, that the planners' knowledge of sectoral relationships between investment and output and of the time-lags involved is so limited that these exercises are of little value in practical decision making.

In many countries, a key issue for the 1980s is how to streamline completed and ongoing projects rather than how to design new investment programs. A recent survey by the World Bank showed that six out of every ten Bank borrowers have serious problems with underfunded ongoing projects and inadequate maintenance of completed projects. Tackling these problems requires a case-by-case approach very different from the earlier investment programming approach (as illustrated by the recent experience with public investment programs in Turkey). This approach concentrates on getting the best returns from completed and ongoing projects and identifying the "free" public sector resources available after budgeting for their legitimate needs. It also puts greater emphasis on performance auditing of completed and ongoing projects.

Calculations of resources remaining after the needs of ongoing and completed projects have been met would no doubt show that in most developing countries the amount of public resources available for initiating new projects is far short of the costs of projects being proposed by various public sector agencies. Thus the role of the planning agency is often to "shoot down bad projects"; consequently, strengthening the project appraisal capacity has become more important than the overall investment programming capacity. In this respect, calculations of rates of return (with shadow prices where appropriate) are more useful than the analysis of sectoral demand-supply balances, except in a limited number of cases where market failures are demonstrably important.

A workable approach

Whether the aim is to formulate the right incentives or sound public investment programs, close consultation among the concerned agencies is vital. Given the complexity of development problems, analytical techniques alone generally do not provide optimal solutions; qualitative judgment is essential, and sound judgment is most likely to emerge from consultation, not only among different parts of the government but also with businessmen and academics. Brazil, Japan, and Korea have, for some time, employed consultation to improve their economic management. To be effective, such a process should remain consultative and should not require conformity. Its aims should be primarily to share information and build consensus. An interesting case is that of Yugoslavia, where planners have attempted to improve the coordination of investment decisions *ex ante* by facilitating the exchange of information on the consistency of assumptions and by merely strengthening eventual contractual agreements.

The experience of the 1970s has also shown that even the best-laid policies and programs can be outdated by changing circumstances, and that the "learning approach" is more effective than any blueprint for national economic management. Flexibility is therefore essential for sound management. To assist in the process of adjustment, several countries (such as Bangladesh) have found it useful to identify a core program of high priority investment so that, in cases of resource shortfalls, program cuts can be selective rather than across-the-board. Rolling plans of public investment (such as those instituted in Botswana and Korea) also help in keeping the programs up to date.

Reconciling consultation with flexibility is not easy; consultations take time, and flexibility requires quick response. Two rules of thumb may be helpful in reconciling these requirements. First, governments need to be selective in the goals and key instruments they emphasize. Theoretically, everything depends on everything else and a comprehensive approach is intellectually attractive. Not all policies can, however, be determined at the same time, and selectivity is essential, even though it is often based on judgment. This approach has already been adopted in many countries: in Japan, both the national plans and the "visions" of the Ministry of International Trade and Industry have concentrated on selected themes; in Korea, export promotion has been a focal point for the development effort; in Bangladesh, planning was improved when it was directed at key issues such as increasing food production; in Malaysia, improvement in income and wealth distribution between Malays and non-Malays has been the central theme for the past ten years; in mineral-based economies such as Botswana, planning has concentrated on trying to convert mineral wealth into human and physical capital, while minimizing the adverse side effects on the rest of the economy; and in Kenya, the practice of preparing sessional papers (white papers) on key issues has proved useful.

Second, to combine flexibility with consultation, countries may have to rely on a central authority for coordinating efforts. In Korea, planning, budgeting, and policy functions have been integrated under a Deputy Prime Minister, who is also the chairman of a policy committee consisting of various economic ministries. In Brazil and Japan, the finance and industry ministries have played an active part in coordinating policies. In Hungary, that role has been assumed by an economic policy committee. In both India and Pakistan, the policy review capacity has recently been strengthened in the planning agencies and in the office of the Prime Minister and the President. Although the specific arrangements depend upon the circumstances of each country, an authoritative coordinating agency is clearly desirable.

Ramgopal Agarwala
from India, is Senior Adviser in the Special Office for African Affairs, and worked on the World Development Report 1983 *and the 1984 Bank report on sub-Saharan Africa. Educated in Calcutta and Manchester, he joined the Bank staff in 1971.*

Planning is concerned with where we want to go; however, that task cannot be accomplished successfully unless we know where we are and where we have been. Although the former task is intellectually stimulating and has engaged a great deal of attention from planners, plans cannot be relevant unless they are well grounded in facts. Thus, a strong information system is essential for all aspects of economic management. Systematic adjustments in policies and programs, necessary in a fast-changing world, are not possible without the reliable monitoring of current developments. As a rule, detailed information—especially about key performance indicators—brings bigger dividends for economic management than do sophisticated techniques of long-term forecasting.

Recent advances in microcomputers and associated software have revolutionized the opportunities for providing decision makers with the analysis of relevant data. Relatively inexpensive, portable, resilient, and easy to operate, microcomputers are suitable for work in rural areas and for middle and junior managers who have no special programming skills. The availability of a rapidly growing library of software tailored to special needs is also a critical factor. Before they can be fully exploited, however, accounting systems will have to be rationalized and appropriate indicators developed for program monitoring.

Conclusions

A review of 30 years of planning in developing countries shows there is a need for reorientation from comprehensive production planning to strategic policy planning. Experience suggests several conclusions. Greater emphasis should be put on streamlining the incentive system rather than on preparing long-term blueprints for development and targets for sectoral investments and outputs. There should be more focus on coordination and consultation—both within government and in the private sector—than on obtaining consistency through top-down technical exercises. More attention needs to be given to programming public investment than to detailing total national investment. Because of the complexity of the issues, countries must be selective and must focus on the key policy issues and public investment concerns. In view of the uncertainties of the 1980s and 1990s, developing countries must be able to respond quickly to changing circumstances by modifying their policies and programs accordingly. If the need for consultations and flexibility is to be met, a central authority should be given responsibility for coordinating economic policies. F&D