Chapter IV

Stages of Development Planning

> . . . if there existed a universal mind that projected itself into the scientific fancy of Laplace; a mind that could register simultaneously all the processes of nature and society, that could measure the dynamic of their motion, that could forecast the results of their interaction, such a mind, of course could *a priori* draw up a faultless and an exhaustive economic plan, beginning with the number of hectares of wheat and down to the last button for a vest. In truth, the bureaucracy often conceives that just such a mind is at its disposal.—Leon Trotsky.

INTRODUCTION

DEVELOPMENT PLANNING takes many forms. It is not the same for all countries, nor is it the same for one country at different times. The nature of a country's development planning is influenced by many elements, like the availability of natural resources, skilled manpower, and the levels of technical, administrative and managerial competence. But two factors, more than any others, condition the form and role of a country's planning: its institutional framework and its stage of development. Despite some similarities, development planning in highly socialized economies therefore differs substantially from planning in mixed economies, and the planning in both socialized and mixed economies at early stages of their development differs greatly from their planning at later stages.

National development planning as it has existed in the Soviet Union, as well as in countries of Eastern Europe, has been a detailed, pervasive and highly centralized administrative system of resource allocation and production based on the quantitative reconciliation of needs and available supplies through a system of "balances," [1] reaching

[1] These balances are prepared in physical and monetary terms for (1) machines, (2) materials and (3) manpower.

down to every plant and collective farm. In contrast with mixed-economy countries, markets, prices and profits are supposed to play only a minor part in regulating the balance of supply and demand.

In the mixed economies, development planning almost always starts on a piecemeal basis with the formulation of public investment projects one by one without a common perspective or unifying framework. Under both systems, however, the forms of national development planning evolve as development proceeds and planners gain more experience. But while planning in the socialized economies tends to become less detailed and less centralized, development planning in the mixed economies tends to become more detailed, more comprehensive and more centralized.[2]

THE SOCIALIZED COUNTRIES

Evolution of Central Planning

In the classic type of centralized planning, the state controls, through regulations and directives, the level of savings, the amount and composition of output and investment, and the structure of prices. Central control over production in agricultural co-operatives or privately owned farms and over consumer expenditures is maintained through a system of price regulation and credit management. For other economic branches, central planning authorities issue elaborately detailed directives and instructions to enterprises specifying what and how much they have to produce, where they are to obtain their raw materials and supplies and how much they are to pay for them, how much labor is to be employed and what its compensation is to be, how costs are to be determined, what prices are to be charged for output and where it is to be delivered, what investments are to be made and so forth.

Governmental authorities and economists in socialized countries contend that central planning was essential for their countries at early stages of development to transform the social and economic structure and to develop capital goods industries. They feel it was also needed to conserve scarce resources and to assure their allocation to strategic national goals and priority projects. They believe that in backward economies in early stages of development, decentralized investment

[2] Mason, Edward S. "Some Aspects of the Strategy of Development Planning—Centralization vs. Decentralization," p. 4.

decisions lead to haphazard, piecemeal development which do not accord with national objectives. Thus, Dr. Oskar Lange, the well-known Polish economist, has argued that in the socialized countries,

> the necessity of centralised planning arose from two considerations. One was the need to mobilise and canalise all the resources to the industrialisation process. Consequently no leakage of resources for non-essential purposes could be tolerated and all the resources were centrally and tightly managed and administered.
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> The other reason was as follows. Development of industries in backward countries meets with the difficulty of lack of experienced managerial personnel. . . . But when competent managerial personnel is lacking one has to depend on the centre from where all the actions will be dictated. In this way the centralised system of management of the economy was born. Historical evidences have shown that such management proved useful.[3]

It is true that when economies are simple, as they are at first in most less developed countries, the greatest needs are clear and feasible alternatives for allocating resources are few. Central planners then find it possible to channel investments into interrelated projects which are effective in getting development started and in accelerating the rate of output. By shifting underemployed labor from agriculture to industry, standardizing products, concentrating on a few basic sectors, and relegating agriculture and consumer goods industries to subordinate positions in the scale of priorities, it has in fact been possible to increase for a period the rate of output in socialized countries through highly centralized planning and control.

As development proceeded however, economic interrelationships became more complex. The number of industrial, construction and other establishments multiplied. Possible choices for employing resources increased, making it progressively more difficult to plan everything from the center. Planners found it harder to take account of frequent changes in the economy and to predict results. The gap between their intentions and events widened. Since management rewards in a centralized planning system are based on production rather than profit, enterprises tended to give greater attention to fulfilling production quotas than to operating at lowest cost. Because a

[3] Lange, Oskar. "Economic Planning and Management in the Socialist Economy of Poland," pp. 157–158.

factory's production quota was likely to be raised if it overfulfilled its quota, a plant manager had an incentive to do no more than fulfill his quota. The system therefore tended to keep production lower than the potential. Supply difficulties compounded the manager's problem. Since fulfillment of a factory's quota depended on the availability of its raw material and other supplies, each manager spent much time ensuring that his plant was well supplied. This often resulted in excessive hoarding of raw materials and supplies. Since deliveries of quotas were more important than the salability of the goods produced, quality gave way to quantity. If goods produced did not sell, large inventories of finished goods accumulated while factories continued without abatement to produce more of the goods already in surplus. Enterprises had no incentive to produce what people wanted or to deliver their output where it was needed most. Consequently, frequent complaints were heard of poorly made products and simultaneous gluts and scarcities of the same commodity in different parts of a country. Serious planning miscalculations resulted in overproduction in some sectors and shortages in others. This was especially true of consumers' goods. Large stocks of unsold clothing, shoes, cloth and other commodities accumulated in the shops while other products like refrigerators, furniture and cars were quickly taken up by eager buyers who wanted more than there was to buy.

In initial stages of development, when the primary aim was to reduce consumption to the levels of output of the few kinds of consumer goods allowed to appear in a sellers' market, prices could be fixed centrally without serious repercussions arising from errors; but as consumers were given a greater choice as the variety and quantity of goods increased, they frequently rejected what was offered for sale at prices shown. When this happened or when other events did not develop as expected in the plan, it took too much time to get a decision to change prices or production. In Poland, as in other socialized countries,

> before the centre was informed, before the information went from office to office and before the administrator could make up his mind as to what to do about it all and the order went back, the situation was completely changed.[4]

Moreover, having central controls over almost every aspect of enterprise operations tended to stifle initiative and creativity, lower

[4] *Ibid.*, p. 164.

productivity and reduce the quality and quantity of output; yet, paradoxically, increasing numbers of enterprises and greater complexity of the economy were making planners lose control over enterprises and local administration. Misallocations of materials and other mistakes multiplied. Output targets for heavy industry were usually fulfilled, but production in light industry and especially in agriculture, generally were below plan targets. In turn, the fall in agricultural output led to serious problems for the supply of materials to industry and foodstuffs to populations.[5]

Evidence that something had gone wrong with the planning system manifested itself in substantial shortfalls in plan targets, as with Yugoslavia's First Five-Year Plan, Poland's Five-Year Plan for 1961–65 and the USSR's Sixth Five-Year Plan for 1956–60. Shortfalls made necessary important revisions in many plan targets, as with East Germany's Plan for 1959–65 and the USSR's Seven-Year Plan for 1959–65; or even the complete abandonment of a plan during execution, as with Czechoslovakia's Third Five-Year Plan for 1961–65, Mainland China's Second Five-Year Plan or the USSR's Sixth Five-Year Plan for 1956–60.

The inability to carry out plans was customarily followed by a period of stocktaking and government admission that something had gone wrong with the planning process. Thus, in Czechoslovakia, the Premier attacked the "ineffectiveness of the national economy," the

> low standards of management and planning, and the systematic failure to fulfill targets in certain important branches of the economy.[6]

Such "self-criticism" produced a realization that quality, variety and efficiency were as important as higher output in building a modern economy, a search for more rational ways of allocating resources and a recognition of the importance of incentives in improving efficiency in socialized enterprises. Eventually, steps were taken, at first hesitantly, then resolutely, to decentralize some economic decision-making. In Yugoslav, Polish and Czech agriculture, it also led to a reversal of earlier attempts to collectivize peasant farms when it became evident that the price of collectivization was too high and that collectivization was unnecessary for achieving national production objectives.

Yugoslavia was the first centrally planned country to introduce

[5] Spulber, Nicolas. "Planning and Development," p. 90.
[6] *Washington Post*, September 26, 1963 (quoting Premier Josef Lenart).

decentralizing innovations. Since the early 1950's, its planning system has been gradually transformed from a close copy of the Soviet model into one in which socialized enterprises operate increasingly within a market framework. While the USSR, Mainland China and Eastern European countries have not gone as far as Yugoslavia, they are nevertheless moving away significantly from centralized and detailed control over plan execution. Each of these countries, except Albania, is either seriously considering, or already experimenting with, methods for assessing the performance of socialized enterprises on the basis of their ability to increase "profits," i.e., net revenue, instead of their ability to fulfill centrally imposed quotas in terms of volume of output. These methods differ from country to country in detail, but they have one purpose in common: they all seek to find a working principle by which an enterprise will be able to recognize by itself what is socially desirable for it to produce and will then be motivated from within, instead of by directives from without, to produce it.[7] In essence, the devices adopted seek to achieve this objective by making the profitability of a factory depend on the extent to which it can satisfy the demand for goods. In the words of Yevsei G. Liberman, a Soviet economist who has taken a leading part in advocating decentralized management of the Russian economy,

> What is useful for the state must also be useful for the factory, and vice versa, what is useful for the factory must also be useful for the state.[8]

Simple conceptually, this precept nevertheless implies far-reaching changes in the management of socialized economies. In effect, it requires the substitution of market forces for central planners as prime regulators of production. It also requires that prices be largely determined by the market.

All proposals for decentralization, in Mainland China and Eastern European countries as well as in the USSR, have concentrated on the execution of plans. No one has suggested that the centralized preparation of plans be abandoned. Despite the similarities between the policies they propose and those found in market economies, those who advocate decentralization of plan execution do not consider their proposals antithetical to centralized preparation of plans. Quite the contrary. They contend that by liberating planners from the need to

[7] Holesovsky, Vaclav. "Czechoslovakia's Economic Debate," p. 15.
[8] "Experiment 52," *East Europe,* p. 27.

manage plan implementation they make it possible for them to give full time to the preparation of plans. Thus, Professor Yevsei G. Liberman of the Kharkov Institute of Engineering Economics writes that decentralized implementation of Soviet plans is

> quite compatible with the principle of central planning of the basic proportions and rates of development of the economy as a whole, and of individual branches and of geographic areas. It does not weaken central planning, but rather strengthens it, as it frees the planning bodies of detailed control, permitting them to concentrate on planning. . . .[9]

Nor do the advocates of profits as a measure of enterprise efficiency consider this proposal an implied abandonment of socialism since they view profits merely as a means of fulfilling plans. Again, according to Professor Liberman, in the Soviet Union as in other socialized countries,

> a factory's profit cannot be appropriated by its heads or by the collective as a whole. Large investments out of the profit are made only under the central plans, but with consideration given to the factory's proposals. A certain share of the profit goes for incentive premiums to the personnel. But these premiums are a form of socialist remuneration according to labor performed; they do not create owners of private capital.[10]

The Pattern of Decentralization

The innovations undertaken by Yugoslavia decisively established a new pattern of socialized planning. Although central control over the amount and general direction of investment was retained, many decision-making powers were delegated to nonpolitical authorities under a more or less self-adjusting system of automatic economic controls. These changes gradually eliminated most detailed planning measures and controls over the economy. Under the prevailing Yugoslav system, socialized enterprises, managed through workers' councils elected by the workers themselves, are permitted to make significant decisions about what they make, from whom they buy, and to whom

[9] Liberman, Yevsei G. Letter to *Economist*, October 31, 1964, p. 453.
[10] *Ibid.*

they sell, the prices they pay or set, the number of employees engaged, the wages paid, etc. There is no guaranteed market for what enterprises produce and they must compete with other enterprises for buyers, as they must for skilled workers, technicians, raw materials and investment capital. Restricted only by general regulations which do not differ fundamentally from those found in mixed economies, enterprises are allowed considerable latitude to allocate their profits to wages or investment. Moreover, the Yugoslav Government considers its present form of plan implementation only a phase in a constantly evolving system which will continue to decentralize further as development continues.

In other socialized countries, however, especially in the USSR, innovations have been slower in coming. Decisions to make profound changes in the management of their economies could not be taken lightly in countries where every branch and sector had become intricately intertwined with others in a pattern determined by centralized controls. To greatly reduce controls over enterprises which have been subject to detailed direction from the center posed serious questions. With less control, might there not be interruptions or breakdowns in the flow of essential commodities with potentially dire results for an economy? What would prevent managers and workers released from controls from consuming profits which should be invested in order to secure planned levels of national growth? Might not enterprises which were free to raise prices create a price inflation? Was it possible to avoid the hazards of reduced controls by introducing procedural reforms in the existing system which would allow central planners to respond with the necessary flexibility and speed to the expanding demands of the economy?

Because of the uncertainties, the decisions to change the system have been preceded by prolonged controversy and debate. The discussions in the USSR have been particularly prolonged and revealing of the issues. On one side have been a conservative group of officials and economists who fought to retain central controls as essential to the socialized system. In January 1965, academician N. Fedorenko, a leader of the conservative school, wrote in *Pravda:*

> We should never forget that centralized, unified planning is one of the greatest achievements of the Socialist system. Centralized planning must not be weakened but improved.[11]

[11] As quoted in *Bangkok Post,* January 18, 1965.

Fedorenko and others have advocated the retention of central controls through the introduction of mathematical methods involving "inter-branch balances" (i.e., input-output analysis), cybernetics and the use of a nation-wide network of computers which they have contended could quickly produce the answers to the economic questions posed by an increasingly complex Soviet economy.

On the other side have been a large and influential group of economists who have held that the basic problem was not one of improving the internal balance of plans but of relating resources to final demand in a more effective and economically rational manner.[12] This group has made a series of proposals to this end. One proposal, by Professor Vasily S. Nemchinov, who headed a high-level study group in the Soviet Academy of Sciences, advocated replacement of detailed production plans for enterprises by a system of contracts based on competitive bidding by enterprises.[13] Another, made by Professor Vadim A. Trapeznikov, Director of the Institute of Automation and Telemechanic, advocated that (1) the USSR emulate Western systems of tax exemptions on corporate income invested in research and development as a way of stimulating technical progress; (2) heavy fines be levied on suppliers for delayed deliveries of goods as a way of reducing the delays which frequently slow down the flow of Soviet production; (3) enterprises be charged interest on their capital to encourage efficient utilization of equipment and to accelerate the turnover of operating capital frequently frozen in excess inventories; (4) profits be used as the key indicator of enterprise performance; (5) a system of flexible prices be introduced to reward plants producing new, better quality or essential goods by allowing them to set higher prices at first to compensate them for higher initial costs of introducing such goods; and (6) enterprise managers be given greater freedom to make decisions through a reduction in the number of "economic" indicators (e.g., wage fund, administrative expenditures, size of inventories, number of administrative staff, etc.), each of which may not be exceeded.[14] Still another noted economist, V. Yagodkin, called for reform of the existing bonus system which, based on the fulfillment and

[12] Holesovsky, Vaclav. "Czechoslovakia's Economic Debate," pp. 17–18.

[13] *New York Times*, April 11, 1964 (based on an article in *Kommunist*—the ideological journal of the Communist Party of the Soviet Union).

[14] Trapeznikov, Vadim A. "For Flexible Economic Management of Enterprises," pp. 3–7. Also, *New York Times*, August 18, 1964, and the *Christian Science Monitor*, August 20, 1964.

overfulfillment of production plans, encouraged plants to seek low-output plans which they could easily fulfill. He proposed, instead, that bonuses be paid for quality of output, prompt delivery of orders, and higher profit earnings.[15] The proposals of Professor Yevsei G. Liberman aroused the most discussion. He suggested that enterprises be encouraged to produce more and better products at lower cost by allowing them to apply their profits to the improvement of their own machinery and equipment, as well as to increased bonus payments for workers. To accomplish this, he proposed a series of ways of reducing central planners' control over factory operations and of giving enterprises greater freedom to determine their own production, the number of workers employed and the wages paid.[16]

Although resistant at first and wavering for a time, Soviet authorities appear to have decided that they have more to gain than to lose by experimenting with decentralized implementation of plans, at least for commodities produced for public consumption. Some steps toward decentralization of plan implementation had been taken as early as 1957, with the formulation of 103 territorial economic councils (*sovnarkhozy*) and 18 major economic regional bodies for coordinating the *sovnarkhozy*. Thereafter, decentralization moves developed more slowly, but the setting of some targets and the making of other planning decisions, formerly prerogatives of the center, were transferred to the republics, regions, territories or enterprises. At the end of 1962, the Government approved the creation of production committees in plants. These committees, which are elected by the workers, participate in the discussions affecting the establishment and execution of enterprise plans, the setting of work quotas and the placement of personnel in the plants. Managers of enterprises are supposed to report to the committees and consult them on production matters.[17] Under the terms of a decree issued in March 1964, collective and state farms have been given greater independence, especially in determining the kind and amount of crops to be planted, the number of cattle to keep, and so on.[18]

[15] *New York Times,* November 24, 1964.

[16] Other Soviet economists, among whom Professors L. V. Kantorovich and V. V. Novozhilov are best known, also made proposals for decentralizing plan implementation and for changing the role of planning, especially through the introduction of mathematical concepts.

[17] Bor, Mikhail Zakharovich. "The Organization and Practice of National Economic Planning in the Union of Soviet Socialist Republics," p. 110.

[18] *Washington Post,* March 24, 1964.

More recently, in January 1965, after some experimentation with several pilot plants, the Soviet Government announced that beginning April 1, 1965, 400 textile, leather, garment and footwear plants, constituting 25 per cent of the country's garment and shoe industries, will gradually change over from the system of centrally imposed production quotas to one in which the production of each plant will be determined by orders placed by their customers. The managers of these plants have been authorized to prepare production plans, determine the number of workers and office employees, and the size of the wage bill on the basis of purchases made by its customers. They are also given leeway to pay bonuses and other rewards for improved quality and speed of output and for other actions which increase enterprise profits. Prices are to be set contractually between buyers and sellers at levels which authorities hope will move the goods produced. They also hope that the greater voice which managers have in setting prices for their goods, as well as elimination of the need to meet production quotas, will encourage factories to introduce innovations in the kinds of goods they produce.

It was subsequently announced that four food processing enterprises in Moscow, Leningrad and Kiev are to convert to the new system in the fourth quarter of 1965. There have also been some indications that centralized planning controls over the machine-building industry are to be relaxed. But at the same time, the Government has taken steps to recentralize control over defense and space (called heavy and medium machinery) industries. In March 1965, a decree removed these industries from the jurisdiction of the *sovnarkhozy* and put them under the direction of reconstituted central ministries, thereby reverting to the general situation which prevailed before 1957. There are also other signs of recentralization. The number of *sovnarkhozy* has been reduced to less than half, their control over some other industrial activities like construction and power generation has also been eliminated and the Ministry of Agriculture appears to be regaining the control it lost three years ago over farming. In the USSR, therefore, conflicting trends are apparent, with decentralization in consumer goods industries advancing simultaneously with recentralization in other branches of the economy.

In Mainland China, events followed a pattern which, while generally similar to the Soviet one, resulted in greater decentralization than in the Soviet Union. The Government soon found it too difficult to plan from Peking every phase of the economy in so vast a country. The

difficulties were aggravated by the large labor surplus and the low level of per capita income in agriculture, and the great number of small enterprises using disparate and primitive technology in industry.[19] Almost immediately after gaining control of the Mainland in 1949, the new Government instituted a system of central planning in the Soviet fashion. Although impressive progress was made under the First Five-Year Plan, the waste and economic cost was high. Plans were handed down to enterprises too late and were changed too frequently. Industrial enterprises used expensive capital instead of cheaper labor to meet their output targets. As in the USSR, plant managers were interested solely in meeting their production quotas, with much the same results. Central planning controls broke down and enterprises were often able to circumvent directives from above.

Dissatisfaction with the wasteful procedures under the First Five-Year Plan led, in 1957, to far-reaching decentralization measures. While policy decisions remained centralized, a considerable amount of economic power over enterprises was transferred to greatly strengthened regional and local authorities. They acquired a voice in fixing targets, the allocation of materials, setting of prices and in financial matters affecting enterprises in their regions, and they shared in enterprise profits. Despite "creeping recentralization" after 1961, following the failure of the Great Leap Forward, the essential features of the 1957 decentralization measures remain in effect.[20]

Among the Soviet-bloc countries, Poland was the first to emulate Yugoslavia's decentralization of plan execution through the use of workers' self-management. Between mid-1956 and April 1958, enterprises were increasingly empowered to make a variety of decisions which had formerly been made at the center. Enterprise managers shared decision-making prerogatives with workers' councils. By the end of 1958, however, when Poland's economy encountered difficulties, the trend toward decentralization was reversed. But although the power of enterprises to make their own decisions has been reduced considerably below what it was in 1956–58, especially for workers' councils, some decisions formerly made by central planners are still made by enterprises. Since January 1963, 30 enterprises producing for export have been working experimentally with almost complete autonomy. There are also signs that large-scale decentralization may

[19] Perkins, Dwight H. "Centralization Versus Decentralization in Mainland China and the Soviet Union," p. 70.

[20] *Ibid.*, pp. 54–61.

again be tried.[21] Polish economists are again writing and discussing the disadvantages of centralization and the advantages of decentralization in the situation which now confronts the country. Thus, Oskar Lange has pointed out that

> the centralised system of management of the economy was found to be inflexible. It caused a certain bureaucratic inflexibility of the economy resulting from the fact that all decisions were taken by men at the top. The new task of raising the standard of living and of satisfying the increasing consumers' demand requires a system of management more flexible than that of the preceding period.[22]

To obtain a more flexible system, says Dr. Lange, requires, firstly, separation of plan implementation from plan formulation and, secondly, replacement of administrative direction of the economy with a system of economic incentives which stimulate plan implementation. In brief, this means that plan formulation must remain centralized while current management of the economy is decentralized.[23] An indication that Polish authorities were thinking along similar lines was given in 1964, at meetings of the Polish Communist Party, where officials discussed without apparent disagreement proposals for giving greater independence to enterprises and enhanced power to workers' self-governing bodies.[24]

Hungary is also experimenting with workers' management of enterprise. It was the first country in the Soviet bloc to apply an interest charge on all fixed and working capital of industrial and construction enterprises in an attempt to improve the efficient use of their equipment and operating funds.[25] A similar step is being contemplated in East Germany. Following the Soviet example, in which the USSR delegated some planning authority to 103 *sovnarkhozy,* East Germany established some 80 *Vereinigungen Volkseigener Betriebe,* as associations of socialized enterprises, and delegated some operational authority to them. In July 1963, the Government also adopted proposals which, if fully implemented, will result in far-reaching price reforms, increased reliance on economic incentives to increase output, and

[21] Shaffer, Harry G. "New Tasks for the Enterprise Director?" pp. 11–13.
[22] Lange, Oskar. "Economic Planning and Management in the Socialist Economy of Poland," p. 158.
[23] *Ibid.*
[24] Shaffer, Harry G. "New Tasks for the Enterprise Director?" p. 13.
[25] *Ibid.*, p. 14. Yugoslavia has had such charges since the early 1950's.

decentralization of plan implementation.[26] Bulgaria started on the road to decentralization in 1963 with an experimental "new system of planning" involving 52 enterprises, chosen from each of the main industrial branches of the economy. Under the careful scrutiny of the State Planning Commission, these enterprises are being permitted to deal directly with those who buy their products. While prices are still fixed by the planners, profits have become the main stimulus of the enterprises in the experiment. At the end of each quarter, profits above a certain level are distributed among workers as additions to their basic salaries. Workers in the enterprises concerned participate with enterprise managers through production committees in the preparation of production plans, assigning workers to jobs and deciding for what purposes profits will be spent.[27] Unlike almost all other Eastern European countries, Rumania has made only a bare beginning in delegating to enterprise managers the right to make decisions affecting enterprise activities. But, then, Rumania has had little incentive thus far to change its system of centralized management since its rate of growth has been high—much higher than in any other Soviet-bloc country.

In contrast, the virtual stagnation of Czechoslovakia's economy made drastic changes in the system of administrative management of the economy in that country a matter of great urgency. Between 1958 and 1961, a series of reforms had been introduced which sought to find some way out of difficulties into which the economy had run without discarding the essential principles of the Soviet centralized planning system.[28] But the attempt failed and increases in output virtually came to a halt. After a prolonged and frequently bitter debate, the Czech authorities approved a series of reforms at the end of 1964 and the beginning of 1965 which promise to transform Czechoslovakia from one of the most dogmatic practitioners of command planning to the pacemaker—after Yugoslavia—of decentralization in Eastern Europe, far ahead of Poland, Hungary, East Germany, Bulgaria and the USSR.[29]

The State Planning Commission will no longer issue instructions to factories. Instead, it will only produce over-all plans which indicate major trends for development of the economy and give general

[26] *Ibid.*, pp. 18–19.
[27] "Experiment 52," *East Europe*, p. 27.
[28] Montias, John M. *Evolution of the Czech Economic Model, 1949–1961*, p. 115.
[29] *Statist*, January 15, 1965, p. 152.

guidelines for investment, use of credit, price policy, etc. Vertical trusts composed of enterprises producing one kind of commodity at different stages of production, e.g., raw materials, components and finished products, and horizontal trusts made up of plants producing the same kind of commodities will largely direct their own affairs. They will negotiate directly with suppliers of their materials and buyers of what they produce and set prices of the goods they sell. They will be allowed to increase or reduce their work forces, fix wages for their workers above prescribed minima and benefit or suffer from profits or losses incurred in competition with domestic and foreign producers. Workers will be given incentives in the form of shares in enterprise profits. But first, receipts from sales will have to be used to pay for materials, power, transport and depreciation, and to lay aside sums for the payment of interest on capital and loans, taxes and necessary investment. Only what remains will be available for wages, allowances and bonuses. Enterprises will have to pay income taxes to the Government and interest on capital employed, and take account of depreciation. While investment in basic development projects will continue to be centrally planned, enterprises will be able to modernize or rationalize production facilities by reinvesting their own profits or by drawing on bank credits. Subsidies to enterprises from the State budget will be eliminated, even if this means that some factories will have to shut down. Depreciation policies will be directed toward encouraging the abandonment of outmoded techniques and price policies toward rewarding technical innovations and higher quality production. Prices are to reflect production costs and, with some reservations, the relation between supply and demand. While prices for power, basic production materials and essential consumer goods will still be fixed by the Government, some prices will be allowed to fluctuate within a broad range and the prices of other goods will depend entirely on agreements between suppliers and consumers. The structure of external trade is to be adapted to the internal changes by giving enterprises more of a voice in production for export. In some cases, enterprises and trusts will be able to participate directly in export and import trade. But hereafter, enterprises using imported raw materials will have to allow for their real costs in varying aspects of production.[30] The new system of planning and management of the

[30] *New York Times*, November 6, 1964; *Statist*, January 15, 1965, p. 152; *Economist*, November 28, 1964, p. 955, and January 23, 1965, p. 306.

economy, which was tested in 1965 in a few transportation and trade enterprises, 110 industrial plants and a larger number of local industries and producer co-operatives, is scheduled to go into full effect from the beginning of 1966.

For the time being, therefore, the reformists in the socialized countries who favor decentralization of plan implementation appear to have won the day. But the contest between them and those who oppose decentralization is not over. The success of decentralization depends on the co-operation of many people who are concerned about their own position.[31] Even Oskar Lange, a staunch defender of the present tendency toward decentralization of plan implementation in Eastern Europe has said:

> I am not at all sure whether this tendency is a permanent one. Further development of productive forces might necessitate a return towards centralization of management. . . .[32]

Nevertheless, the outlook is that the tendency toward decentralization of plan implementation will continue and even accelerate, although not without some halts and even retreats from time to time when the advance appears too rapid or the risk too great. At least some of those who had advocated retention of centralized controls over plan implementation seem to have become reconciled to the new order. One such advocate in the USSR, Academician Nikolai P. Fedorenko, recently indicated his belief that the problems raised by decentralized plan execution through the use of incentives and centralized plan formulation employing computers were not only soluble but dependent on each other:

> These two problems, the use of economic levers and stimuli on one hand and the organization of optimal planning on the other hand, are intimately related. They must not be torn apart or opposed to each other. They are two inseparable aspects of the process of further developing and strengthening democratic centralism [i.e., relative freedom under central control] in the management of the national economy.[33]

[31] One argument which advocates of reform have advanced is that decentralization would result, as it has in Yugoslavia, in substantial reductions in the number of central planning personnel and administrators.

[32] Lange, Oskar. "Economic Planning and Management in the Socialist Economy of Poland," p. 164.

[33] *New York Times*, January 18, 1965 (quoting Nikolai P. Fedorenko in *Pravda*).

According to reports, an ambitious blueprint has been adopted for initiating automation of plan formulation. The blueprint envisages covering the whole country with a network for channeling information required for planning. The core of the network would be formed by 50 key computer stations, each with a computing capacity of one to one-and-a-half million operations per second. The stations would be in direct connection with each other and with the USSR *Gosplan,* and with enterprises through a series of substations. The stations would collect data, digest them and distribute them to all levels of the economy. Such data as prices and rates of interest would be issued for use by enterprises and local authorities. While the blueprint is impressive, it is by no means excessive for a system of planning which, according to estimates, involves a programing problem with some 50 million unknowns and 5 million constants. But before the blueprint can be realized, the Soviet Union will have to greatly improve its computer technology. According to informed opinion, the Soviet Union appears to be well behind leading western countries in the availability and use of advanced computational equipment.

As part of the search for new methods and techniques, Russian economists and planners are turning to sophisticated mathematical and econometric concepts, described by a newly coined word, "planometrics." The use of planometrics represents a complete reversal of the former official attitude, which considered mathematical and econometric planning techniques to be inimical to Marxian theory. The drafting of the 1966–70 plan embodied the new approach. For the first time in Soviet history mathematical procedures and models were used to construct plan variants and to check strategic choices.[34]

THE MIXED ECONOMIES

Three Stages of Planning

The Project-by-Project Approach. In the mixed economies, development planning almost always starts on a piecemeal basis with the formulation of public investment projects little related to each other or to a unifying concept. Except for being listed in the budget, often with omissions, these projects may never appear in a single document; or they may be combined to form *ad hoc* development plans or pro-

[34] Zauberman, Alfred. "New Phase Opens in Soviet Planning," p. 13.

grams for the public sector which makes little or no reference to the private sector. They are, nonetheless, little more than collections of unrelated projects. The Ten-Year Plan of Development and Welfare for Nigeria prepared in 1945 and the revised Five-Year Plan which followed it, like others formulated in the British colonies to guide the allocation of CD&W funds, were examples of such plans. India's First Five-Year Plan for 1951–56 and Pakistan's first development plan, the Six Year Development Programme for 1951–57, were largely collections of projects in the public sector already under way. Many countries, either without formal development plans or with plans which are largely disregarded when annual budgets are prepared, continue to "plan" in this way.

The project-by-project approach has serious shortcomings. Sometimes accompanied by economic policies and measures intended to promote development, the approach is nevertheless characteristic of governments without a clearly defined development philosophy or a long-term outlook. There may be references to raising living standards, extending social services, stimulating exports or substituting for imports, but no real attempt is made to relate policy to investment or to stated objectives. Indeed, economic policies and measures are frequently at variance with objectives. A reliable estimate of investment resources does not exist and the Government does not have complete information on the magnitude or composition of current and prospective public investment. Nor is an effort made to establish priorities for projects on the basis of uniform economic, technical and administrative criteria, or to evaluate the feasibility of the program as a whole in relation to available funds, raw materials and other supplies, technicians, skilled manpower and management.

The project-by-project approach frequently results in the frittering away of public investment resources on too many small, unrelated projects or on a few unduly large ones. It may lead to over-investment in some sectors, where one ministry, department or agency is more efficient than others in carrying out projects. Since full financing in national and foreign currencies is not assured for each project at the start, completion of projects is frequently delayed when funds run out. Poorly prepared projects also cause great delays. These imbalances may be overcome in time, but in the short run they are wasteful and can create serious inflation, balance of payments and other problems. The example of Turkey, one of many, is illustrative. During the 1950's, public investment in that country proceeded on a project-by-project

basis and output in some sectors reached high levels. But the lack of intersectoral co-ordination created serious imbalances and the failure to relate investment expenditures to resources released inflationary forces which ultimately had a depressing effect on the economy.

Inadequate from many points of view, the piecemeal, project-by-project approach has nevertheless provided many countries at the beginning of their development with means for laying a foundation for their development. Thus, although Iran's Second Seven-Year Plan was little more than a list of projects, whose execution was attended by waste and duplication, a great deal was accomplished. A high level of investment was maintained, several thousand miles of roads were built, the railroad and port systems were greatly expanded, airports and dams were constructed, and the basis was laid through preinvestment studies and the preparation of projects for further development. In some countries, where government officials or leaders are indifferent or incapable, where political instability causes frequent changes in the leadership of government or operating agencies, there may not be any workable alternative to the project-by-project approach. For some countries, at a certain period of their history, therefore, it may be necessary to postpone for a time attempts to accelerate development planning through more advanced techniques.

Integrated Public Investment Planning. But whenever possible, it is desirable to replace the project-by-project approach with integrated public investment planning, a more advanced planning procedure which is free of many defects of the project-by-project approach. The preparation of a well-prepared investment plan of this type begins with estimates of available public investment resources, in local currency and foreign exchange, taking account of the possibilities of increasing them through taxation, noninflationary domestic borrowing, and external loans and aid. Then, these resources, domestic and foreign, are divided among a selected group of sectors subject to public investment and finally among projects in each sector which have been ranked in order of priority. Priorities are determined on the basis of realistic estimates of costs and benefits, the relationship of each project to others completed, under way or contemplated, administrative and technical readiness to proceed with construction, as well as other pertinent criteria. Insofar as possible, projects are selected with a view toward increasing the sum of the benefits to be derived from a given total of investment. Thus, a project for a road which opens previously

inaccessible farming areas may be made into a better investment by land reclamation or irrigation projects and by projects for processing and storing the crops produced in the region. From an examination of the available projects, it may be, and usually is, necessary to shift resources from one sector to another to provide funds for available high priority projects. Ultimately, therefore, an integrated public investment plan starts with individual projects which are combined into sector programs and then into an investment plan for the public sector.

An integrated public investment plan may be annual or multiannual, but whenever possible, it should be based on sector programs with a perspective of five or ten years or even more for some sectors like agriculture. This implies that at an earlier point, surveys of electric power, transport, agriculture or other critical sectors have been completed. Where such surveys are lacking, the plan gives high priority to making them. The public investment plan then becomes the basis for determining the items and amounts of public capital and current expenditures included in the national budget each year. In integrated public sector planning, government action in the private sector is mostly limited to the adoption of clearly desirable measures designed to improve the climate for private investment and to influence the general direction of private investment to conform to the plan's development objectives. But there is no attempt to relate projects and sector programs to a set of over-all production or income targets.

It would be hard to find many countries with investment plans which met all the requirements for a properly integrated public investment plan. In the less developed countries, public investment plans fall somewhere between the project-by-project approach and the integrated public investment plan, with most plans closer to the former than to the latter.

Comprehensive Planning. Comprehensive planning, also referred to as aggregative, global or over-all planning, covering an entire economy, is the most advanced form of development planning. It begins with the projection of a specific rate of increase in income or production over the planning period as the prime target. This rate is usually determined by relating the amount of savings or investment to the proposed increase in income or output by a "capital-output ratio" or "capital coefficient" which gives the units of capital outlay required to increase income or output by one unit. The formulation of a

comprehensive plan then involves the construction of a growth model for the period of the plan which estimates the effect of the assumed rate of growth on such aggregates as public and private consumption, savings, investment, imports and exports, employment, and the demand and supply implications involved in producing the national product, by economic sectors and, sometimes, by regions. A variety of economic, statistical and mathematical calculations are made to relate inputs of labor, raw materials, land and capital equipment and the resulting outputs. Similar calculations show the relationship between income generated and expended for consumption, investment, government services, exports, etc. The results are tested to determine their compatibility with the targets, their consistency with each other and whether they are within reach of available resources.

Comprehensive planning includes both the formulation of an integrated public investment plan and a plan for the private sector [35] which have been reconciled with each other and with the over-all targets. This is accomplished by two procedures which move from the general to the particular and back again to the general. The first has been variously described as "forward planning," "planning from above" or "planning from-the-top-down" to emphasize the fact that it starts with the aggregate plan and targets and "disaggregates," i.e., divides these into interrelated plans and subtargets for each economic sector or region. The second procedure, the reconciliation of the individual public and private investment projects and programs with the aggregative planning model, has been described as "backward planning," "planning from below," or "planning from-the-bottom-up," to stress the fact that the actual public and private investment projects and programs proposed by various sponsors must be built up into sector programs or regional plans which are consistent with the comprehensive aggregative plan.

In the preparation of a comprehensive plan in most countries, planning from-the-top-down generally has preceded planning from-the-bottom-up. But good planning requires that planning from-the-bottom-up should start at least as early as planning from-the-top-down to make it possible for the two to converge and mesh. When properly carried out, this procedure is an exercise in successive approximation through trial and error at the end of which each project,

[35] In mixed economies, the program for the private sector is largely based on private investment programs and governmental policies designed to influence them.

sector program and regional plan has been made consistent with the plan's aggregative targets and vice versa.

Comprehensive planning is conceptually superior to partial planning because it permits estimates to be made of the level of savings, investment, imports, exports and other economic variables required to achieve a desired rate of growth in real per capita income. It is impossible to make such estimates within the context of a public investment plan because it covers only a part of the economy. In partial planning, there is also no way of making over-all judgments about the comparative advantage of public and private projects based on alternative costs of labor, capital and natural resources. This means that an evaluation of the relative roles of the public and private sectors and an economically appropriate division of resources between them can be made only within the framework of comprehensive planning. Without such a division, there is a risk that the demands for resources may exceed the supply, leading to scarcities, bottlenecks and imbalances which can impede development.

Because of the limitations of public investment plans, much of the discussion about planning has assumed that all countries should plan comprehensively. Although the Economic Commission for Asia and the Far East (ECAFE) found in 1961 that the capital-output ratios "in almost all countries of the region are not accurately known" and that "the exact increase in income . . . cannot be deduced from a given investment programme" without the capital-output ratio,[36] a group of eminent ECAFE experts, headed by Professor Jan Tinbergen, had recommended two years earlier that even countries like Nepal, Afghanistan, Burma and Thailand should try to plan through comprehensive growth models.[37] According to the Colombo Plan Bureau,

> economic growth through comprehensive national planning is the generally accepted policy of Colombo Plan countries, which include these [previously enumerated] countries, as well as others like Bhutan, Ceylon, Indonesia and Korea, which are also in early stages of development.[38]

The United Nations Economic Commission for Latin America

[36] UN. ECAFE. "Economic Development and Planning in Asia and the Far East," *Economic Bulletin for Asia and the Far East,* December 1961, p. 3.

[37] UN. ECAFE. *Programming Techniques for Economic Development with Special Reference to Asia and the Far East,* p. 75.

[38] "Program of National Plans," *Colombo Plan,* p. 1.

(ECLA) has for many years been a vigorous advocate of comprehensive planning in its region. As part of its effort to get countries in Latin America to plan comprehensively, ECLA began in 1953 to prepare for illustrative purposes aggregate and sectoral projections based on assumed rates of growth for a series of Latin American countries. These projections were designed to show the most desirable development of the national product and its composition. The projections were criticized as being unrealistic and there is no evidence that they influenced the internal policy of any country for which they were prepared. In the opinion of Professor Albert O. Hirschman, a well-known student of Latin American development,

> ECLA's detailed projections where all economic sectors are made to mesh harmoniously are in a sense the 20th century equivalent of Latin America's [idealistic] 19th century constitutions—and are as far removed from the real world.[39]

Nonetheless, ECLA's efforts eventually bore fruit. It was a prime mover in getting the "Declaration of Punta del Este," which launched the Alliance for Progress in August 1961, to include a provision that

> each of the countries of Latin America will formulate a comprehensive and well-conceived program for the development of its economy.

The United Nations Economic Commission for Africa (ECA) also advocates comprehensive planning for African countries although, according to an ECA report,

> all of them have in common that the statistical information required for comprehensive planning is inadequate and that the number of qualified people who could formulate and execute plans is still severely limited.[40]

Among African countries, Ethiopia, Morocco, Senegal, Tanganyika, the UAR and Upper Volta have either prepared or are preparing comprehensive plans based on growth models.

[39] Hirschman, Albert O. "Ideologies of Economic Development in Latin America," p. 22.

[40] UN. ECA. *Report of the Working Party on Economic and Social Development (Draft)*, pp. 4–5.

Premature Comprehensive Planning

There is much to recommend comprehensive planning for a country which is ready for it. Some countries like Israel and Mexico, with considerable experience in preparing and executing projects and sector programs, a reasonably good statistical basis for planning and a trained and experienced cadre of technicians and administrators, have reached a stage of development in which they could profit by replacing partial with comprehensive planning. But where reliable statistics and trained economists and technicians are in short supply, where experience with planning is lacking, where administrative organization and procedure are inefficient or where the importance of getting development started soon is essential, attempts to move from the project-by-project approach directly into comprehensive planning have usually been self-defeating. Experience shows that the more complex the kind of planning, the more difficult it is to carry out. Without having first learned how to prepare and execute an integrated public investment plan and the projects which compose it, and to build up the institutional arrangements required to do these things, it has generally proved impossible for less developed countries to take on simultaneously the more difficult task of planning comprehensively for both public and private sectors.

Attempts to cure the planning inefficiencies of the project-by-project approach by bypassing the integrated public investment plan stage and moving directly into comprehensive planning put too great a burden on the limited capacities of planners and administrators in less developed countries and cause the planning process to become less, not more, efficient. Yet those who believe in comprehensive planning for all countries at all times frequently prescribe comprehensive planning for countries which have clearly demonstrated their inability to cope with the problems of partial planning. This happened in Nepal after the meager results of the First Five-Year Plan became apparent. According to the Permanent Secretary of Nepal's Ministry of Finance, the failure to achieve plan targets was due to a

> lack of efficiency and promptness in the administrative machinery concerned with planning, shortage of skills and technical and trained personnel, over-emphasis on foreign aid, lack of proper publicity to generate public enthusiasm, and lack of basic informa-

> tion about the different sectors of the economy . . . [which] . . . makes it almost impossible even to guess the total production of the country.[41]

Because the Government's "administrative structure was too antiquated to implement the Plan," actual development expenditures amounted to only 35 per cent of budgeted amounts.[42] Nevertheless, planners prepared and issued a draft Second Plan based on a growth model which called for more than a ninefold increase in investment expenditures and a 6 per cent annual increase in national income, compared to an imputed annual increase of only 1.6 per cent in incomes during the First Plan period.

Those who consider comprehensive planning the appropriate way to deal with bad partial planning might find it instructive to review the evidence of past experience.

Experience Favors Staged Approach

The meager results obtained from efforts over several years to turn out a usable national comprehensive development plan based on an econometric model, caused the Director of Venezuela's Central Office of Coordination and Planning to conjecture that

> the question must be asked whether integrated planning of the national economy makes sense for oil-rich Venezuela, or whether planning activity is not being carried on as an imitation of trends in other countries.[43]

When Burma, Ceylon, Bolivia, Ghana, Ethiopia, Indonesia, Morocco and the Philippines, among other countries in early stages of development, sought to emulate planning procedures in countries at a later development stage by replacing their *ad hoc* approach with comprehensive planning, they found the shift to be premature and most abandoned their comprehensive plans before the end of their planning periods. It was premature in the sense that they were unable either to influence appreciably the course and quantity of private investment or to achieve public investment goals in accordance with their plans. In other countries, like Upper Volta and Nepal, governments refused to

[41] Pant, Y. P. "Nepal's Economic Development: A Study in Planning Experience," p. 1726.
[42] Pant, Y. P. "Nepal's Planned Development," p. 478.
[43] Hurtado, Hector. "Planning for the 70's," p. 11.

adopt comprehensive plans prepared by planners because they were considered to be too sophisticated or ambitious to be realized.

Countries with an understanding of the complexities of comprehensive planning tend to start with partial planning. Thus, despite the availability of one of the most efficient government administrations and civil service systems in the world, the United Kingdom found it desirable in planning output during World War II to limit the scope of its planning effort:

> Indeed planning and co-ordination was successful during the war only in so far as it was recognized that it had to be rough and ready; any attempt to operate a 'perfect' system would have made even limited co-ordination impossible. And yet it is one of the ironies of planning that the more ambitious the system of co-ordination constructed, the less likely was it to be successful; and the more limited and successful it was, the less useful its results.[44]

The establishment of machinery for comprehensive planning in the United Kingdom in 1961 was preceded by the preparation and publication of sectoral programs for coal in 1950, electricity and gas in 1954, and railways, steel and nuclear power in 1955.

The experience of countries which have provided the "models" for emulation also does not support the view that all countries should start with comprehensive planning. First attempts at national development planning by countries with the longest planning experience generally covered only a part of the economy. Thus, both India's and Pakistan's first development plans concentrated on public investment and largely ignored the private sector. Even in the industrialized countries, whether with mixed or socialized economies, partial planning generally preceded comprehensive planning. The first French Modernization and Equipment Plan of 1947–1952/53 covered only six basic sectors: coal, electricity, steel, cement, farm machinery and transportation.[45] In the USSR, comprehensive planning also came after partial planning. The Goelro (Government Commission for Electrification) 10 to 20-year electrification program of 1920, other sectoral programs for food, metals, textiles and rubber in 1921–22, and the industrial program of 1924, all preceded the First Five-Year Plan which started in 1929.

[44] Devons, Ely. "Economic Planning in War and Peace," p. 19.

[45] The Plan was originally scheduled to terminate in 1951. When it was extended to 1952/53, two additional sectors—fuels and fertilizers—were added.

Czechoslovakia, the most industrialized of the Eastern European bloc, started in the postwar period by formulating sectoral programs for power, textile, clothing and raw materials, all of which were considered crucial for its economy. Similarly, other Eastern European countries started planning partially for a few sectors and industries. Planning for the entire economy in Mainland China began only with the Second Five-Year Plan. The First Five-Year Plan concentrated on large-scale industry at the national level and was little concerned with agriculture, and medium and small-scale industry.[46]

Comprehensive planning, covering both public and private sectors, has generally come in later stages of a country's development. In India, Pakistan [47] and France, for example, comprehensive planning was not attempted until their second plans, in Iran not until its third plan and in the Sudan not until its fourth plan. In the USSR, the First Five-Year Plan for 1928–33 set targets for 50 industrial branches compared with 120 industrial targets set in the Second Five-Year Plan for 1933–37. In the countries of Asia, the region with the most planning experience,

> the first plans were almost invariably a summation of individual projects in the public sector, many of which were already being implemented. . . . Even in those first plans where income and employment targets were given, the functional relationship between the investment programme as a whole and the expected increase in national income and employment were hardly more than a guess, because of lack of accurate information on the capital/output ratio. . . .[48]

The decision to postpone comprehensive planning was generally calculated and was taken because planners were convinced that better results could be obtained at first from partial planning. Thus, the Indian Planning Board, appointed in 1946 by the Interim Cabinet to recommend planning procedures and machinery for independent India, took the firm position that

> it must be frankly recognized that we do not at present possess in India either sufficient knowledge and statistical information, or

[46] Perkins, Dwight H. "Centralization Versus Decentralization in Mainland China and the Soviet Union," pp. 65–67.

[47] Pakistan's so-called First Five Year Plan followed its first development plan, the Six Year Development Programme.

[48] UN. ECAFE. "Economic Development and Planning in Asia and the Far East," *Economic Bulletin for Asia and the Far East,* December 1961, p. 2.

> sufficiently extensive control over economic activity to be able either to frame or execute plans whose combined and cumulative effect will be to increase per capita income by a predetermined amount.[49]

The Board therefore decided against the preparation of a comprehensive plan and recommended that despite the possible lack of meticulousness, it was better to have a partial plan than to spend more time on preparing a comprehensive plan.[50] Experience proved this position to have been justified. For although India's First Five-Year Plan was a partial plan, good results were obtained from it.

Faced with scarcities of data, trained economists, manpower, equipment and raw materials after World War II, the relatively advanced French planners also took a similar approach in preparing their first plan. Their decision to start with partial instead of comprehensive planning was

> not because of any mistrust of econometric techniques, but because of the lack of adequate statistics, the impossibility of building an input-output table quickly enough and the scarcity of trained economists. To define the targets of the plan in terms of growth of the GNP and of income, with reference to a given level of capital formation and with a breakdown in any number of sectors covering the entire economy, would have involved much guess-work and many hazardous estimates. It was felt that, failing a certain level of statistical information and knowledge about correlations and coefficients, the wisest course was to make an incomplete plan rather than a deceptively complete one. In other words, the very real danger of pursuing inconsistent targets, or at least of allocating resources in an irrational manner, was considered a minor danger compared with that of losing a great deal of time trying to build an over-all growth model based on a short series of inaccurate statistics.[51]

It took courage and restraint for the planners "to think small" and take a partial approach to planning when the country's needs were disturbingly great. As Pierre Massé, General Commissioner of the *Commissariat Général du Plan,* has indicated, reaction to this position was not universally favorable. But it produced good results.

[49] Ghosh, O. K. *Problems of Economic Planning in India,* p. 49.
[50] *Ibid.*
[51] Lemerle, Paul. "Planning for Economic Development in France," p. 50.

> Because of the shortage of means . . . , a hard choice had to be made. The choice decided upon in France, in favor of what were called the *basic sectors,* was not understood by all; the First Plan was criticized, for example, for neglecting housing and the textile industry. Experience proved, however, that through the concentration of our limited resources on these sectors, decisive progress was made in expanding the national potential.[52]

Planners in the Mexican Investment Commission, established in 1955 to co-ordinate public investment, also strongly advocated beginning with partial planning. They were profoundly skeptical of the thesis that planning in less developed countries should start from overall targets and move downward to the project level. In a lecture to students at the University of Mexico, a high official of the Investment Commission stated his preference unequivocally:

> If planning and programming take as a point of departure a convenient total of investment in order to maintain a certain development rate and . . . divide the total between public and private investment, then among big sectors of economic activity and then in even more detail, the formulation of an investment program in our country should be carried out in exactly the opposite manner: from each project to a group of projects of a given economic activity; thence to a total volume of public investment, and then link it to private investment. . . .[53]

The Mexican planners felt that problems of resource allocation and investment criteria in a country at the beginning of its development could usually be reduced to a few simple questions capable of being answered without prolonged theoretical exercises. Irrigation, power, petroleum and transportation were clearly the sectors of highest priority for Mexican public investment, as they had been for 20 years. During those 20 years, public investment in these sectors had consistently accounted for about three-fourths of total public investment. Because priorities were obvious in most cases, fairly constant investment ratios also had prevailed among most sectors and subsectors of the economy, and even among individual government departments and autonomous agencies. Although minor shifts had occurred in some years, there was little likelihood that sectoral priorities would change sufficiently in the immediate future to necessitate basic reallocations of

[52] Massé, Pierre, "French Economic Planning," p. 4.
[53] Romero Kolbeck, Gustavo. "La Inversion del Sector Publico."

investment resources. Moreover, as in most other less developed countries, a large proportion of public investment funds available each year—in Mexico as much as 80 per cent—was committed to projects already under construction. The immediate task, as seen in the Investment Commission, was to try to increase yields by rationalizing such investments (e.g., by making certain that a road from a new port to the hinterland was ready for use when the port project was completed) and by co-ordinating new projects with those already under way.[54]

The Mexicans recognized that their "rough-and-ready" approach was limited. They pointed out, however, that while Mexico was operating successfully with a limited system of integrated public investment planning, less developed countries which were attempting to plan with a comprehensive system were not doing nearly as well. They were unimpressed with the contention, frequently heard in Latin American planning circles, that even though a country did not achieve the targets in its comprehensive plan, it was nevertheless better than a partial plan for educating political leaders in planning. They pointed out that where leadership was changing frequently, the lesson was not learned. Moreover, it was likely to be easier and faster to educate inexperienced political leaders at first with a simpler integrated public investment plan than with a more sophisticated comprehensive plan based on an esoteric model. They reasoned that in the long run a country could grow faster, and its planners and officials learn more, by starting with successful partial planning than with less successful comprehensive planning. They therefore considered econometric model-building to be a largely fictitious exercise which was likely to divert attention from immediate development needs. And they considered those who advocated the construction of such models for countries in early stages of development to be bad planners in practice and those who sought to increase yields quickly through rationalization of current public investment to be the best planners.[55]

Experience of International Financing Institutions. International institutions which finance development favor a planned approach to development. But the gaps in the number and quality of projects in developing countries, as well as the widespread inability of countries to execute them, have made them conscious of the need in countries in early stages of development for plans which these countries are

[54] *Ibid.*
[55] *Ibid.*

capable of implementing. This has led them to advocate that countries start planning with integrated public investment plans. A view which is typical in the World Bank was recently voiced by one of its officials:

> Shortages of trained talent similarly threaten the implementation of development plans. . . .
>
> Where these limitations exist, two principal choices are presented. One alternative is to ignore the limitations or pretend they do not exist. For the absent or insufficient data, assumptions may be substituted—assumptions concerning a desirable growth rate, and further assumptions concerning the magnitude and availability of the capital and manpower required to produce that rate of growth. . . . The resulting plan is likely to be an impressive but essentially fanciful document, with a misleading appearance of precision which may have regrettable, even disastrous, consequences for the economy if taken seriously.
>
> The second of the alternatives is to devise a much more modest plan which takes account of the practical limitations of the data, managerial capacities and skilled manpower available and which, rather than prescribing an aggregate over-all model for the entire economy, focuses on a general strategy of development and on an investment program for the public sector based on a series of specific projects. Having seen the planning process from the Bank's side, I would without hesitation urge this second course for most countries with whose economies I am familiar.[56]

The Charter of Chile's publicly owned development corporation, the *Corporación de Fomento de la Producción* (CORFO), established in 1939, provided that it should formulate a national plan. Because of a lack of basic economic data and trained planners, CORFO postponed preparing a national plan. Instead, it concentrated on sectoral programing. In 1954, CORFO prepared an integrated program for Chile's agricultural and transportation sectors. It did not prepare a comprehensive plan until 1960. Among those who had criticized CORFO for failing to prepare a national development plan earlier was Felipe Herrera, formerly Chile's Minister of Finance and Manager of the Central Bank of Chile from 1953 to 1958. Speaking as President of the Inter-American Development Bank, however, Dr. Herrera told an

[56] Demuth, Richard H. (Director of the Development Services Department of the World Bank) *Planning, Projects and People,* pp. 6–7.

audience at the University of Chile in May 1963 why he had changed his mind:

> Many years ago I criticized Chile's Corporación de Fomento on the grounds that it had failed to comply with the mandate of formulating a 'general plan' for the development of production. Like the inexperienced person I then was, I reproached the CORFO for not having complied with what I thought should have been its first obligation.
>
> As I look back now I can say that fortunately this agency did not try from the very start to prepare a national plan for the development of production, which in the best of cases might have been very well presented but which might have been only a masquerade of a plan. In 1939 or 1940, Chile was in no way equipped technically nor did it have the other prerequisites for development that were necessary to enable it to work out the plan which is now in force, twenty years later.
>
> I believe that the wise and sensible course was the one that was followed, with that pragmatic judgment with which so many decisive problems in this country have been faced. . . . Development by sectors was started, with priorities for the basic ones . . . as experience was acquired, a realistic picture of the development plan, of possible goals that could be attained, of the actual amount of investment required, began to take shape. In short, CORFO kept its feet on the ground, reconciling aspirations with actual possibilities.[57]

A study made by the Columbia University School of Law in cooperation with the University of Oregon supports this conclusion. In Chile, states the study,

> sectoral planning proceeded vigorously before comprehensive planning was undertaken, with impressive concrete results, and the foundations for comprehensive planning were laid over a period of a considerable number of years devoted to macroeconomic analysis. The sectoral planning was based on fairly obvious *'a priori'* priorities determined for such activities as electric power and integrated steel production, and specific projects and enterprises were established to carry out the sectoral plans, which have accounted for a large part of the external financing received by Chile. There is no evidence that the later development

[57] Herrera, Felipe. "The Financing of Latin American Integration," pp. 9–10.

> of a comprehensive plan invalidated in any fundamental way the earlier judgments arrived at in the sectoral planning. Sectoral planning, if properly carried out, after all does involve consideration of interrelationships of the particular sector with the rest of the economy, which is not very different from what is done in comprehensive planning approaches.[58]

DIFFICULTIES OF COMPREHENSIVE PLANNING

The Capital-Output Ratio. Comprehensive plans based on growth models generally rest on two assumptions. The first is that the rate of investment is the prime determinant of the rate of growth, the second is that the capital-output ratio or capital coefficient remains fairly stable over long periods.[59] These assumptions have been challenged as oversimplifications of the growth process and as exaggerations of the role of capital in stimulating development. Thus, the United Nations Economic Commission for Africa (ECA) has pointed out:

> It is one of the weaknesses of development programming generally and one based on aggregative investment targets specifically, that it may concentrate attention too much on tangible investment as the only method of raising income.[60]

It is, of course, possible to increase output and incomes without investment by making fuller use of existing capacities, improving maintenance and repair practices, reducing waste, providing incentives, improving skills, crop rotation and agrarian reform in agriculture, etc. In the development of a country, the prime mover is the human factor. Where human beings are well organized and motivated, and willing to work together, lack of capital, while a handicap, is a handicap which can be overcome, as the experience of many countries demonstrates.[61] This view finds support in a study by the Economic Commission for Europe (ECE) which concluded that in the postwar

[58] Columbia University School of Law. *Public International Development Financing in Chile,* p. 123.

[59] UN. ECAFE. *Programming Techniques for Economic Development with Special Reference to Asia and the Far East,* p. 11.

[60] UN. ECA. *Problems Concerning Techniques of Development Programming in African Countries,* p. 32.

[61] Staley, Eugene. *Political Implications of Economic Development and Pitfalls to be Avoided,* p. 2.

END

growth of Western European countries, inputs of capital accounted for only a part—often a small part—of the growth while the "human factor" played a very important role.[62] In contrast, the history of oil rich countries like Iran, Iraq, Saudi Arabia and Venezuela shows that investment of capital alone does not assure development. It cannot be true, therefore, that higher investment necessarily produces faster growth.

If development has a low place in a country's scale of values, an increase in the amount of investment may yield the same or even lower results. The economic policies pursued by a government are much more important to economic development than its investment expenditures. According to Professor Arthur Lewis, this was clearly demonstrated in Ghana:

> Ghana's experience under the First Development Plan proves my proposition that policy is more important than expenditures. Very large sums of money were spent by the Government, but since the industrial, agricultural, mining, and housing policies were inappropriate, very little increase in productive capacity resulted from these large expenditures. There was a remarkable increase in public facilities, such as roads, schools, electric power, water supplies, and so on, but remarkably little increase in the output of commodities. Considering also how much was wasted by overloading the building industry, one can say without hesitation that the country would have made more progress if it had spent less and had better economic policies.[63]

Even if investment were the major determinant of growth, poor statistics in most less developed countries would make their capital-output ratios suspect and models built on them of doubtful value. For example, David E. Bell, first head of the field staff of the Harvard Advisory Group in Pakistan, found "few data on which to judge the relationship between investment and output in Pakistan" [64] and "the relationship between investment and output . . . a very doubtful datum." [65]

It is also known that the capital-output ratios for a country may vary greatly over several years. This is especially true in less developed

[62] UN. ECE. *A Study of Determinants of Growth in Europe During the Nineteen-Fifties,* p. 2.
[63] Lewis, W. Arthur. "On Assessing a Development Plan," p. 4.
[64] Bell, David E. "Planning for Development in Pakistan," p. 10.
[65] *Ibid.,* p. 8.

countries with substantial investment programs. In such countries, a shift of even a small amount of investment from one sector to another or even from one set of projects to another may result in an appreciable change in the capital-output ratio. Moreover, one of the major purposes of development policy in less advanced countries is to bring about structural changes in the economy which, if realized, is certain to alter capital-output relationships. The estimations of capital-output ratios therefore cannot depend on past experience as much as on future changes in the economy and, even more, on government policy. Consequently, capital-output ratios for a few years in the past are unreliable guides for determining the level of investment needed in the future to obtain a specific rate of growth or, to put it in economists' language, the average capital-output ratio is not a dependable indication of the marginal or incremental capital-output ratio.

When such historical ratios have been used to construct growth models, they have often proved to be misleading. Indian planning experience furnishes an instructive example of this. On the basis of highly favorable returns during the First Five-Year Plan period, optimistic capital-output ratios were used in building the growth model for the Second Five-Year Plan. These ratios proved to be unrealistic. When expected improvements in productivity in agriculture and industry failed to materialize, output was disappointingly low. The Philippine experience also provides an example of the dangers of projecting capital-output ratios based, as in the Indian case, on a short period when conditions were unusually favorable.

The use of an over-all capital-output ratio for a country's economy to estimate the amount of capital required for sectors of that economy or for individual projects has also been criticized as unscientific, as has indiscriminate application of capital-output ratios of one country to another. Unsatisfactory results obtained from these procedures prompted a group of experts of the Economic Commission for Asia and the Far East who favored the extension of comprehensive planning to write, nevertheless:

> We feel that capital-output ratios should be used with greater caution in estimating capital requirements than has been the practice hitherto; that if so used their calculation should be much more carefully done; that they should be used only if it is possible to make separate projections for the main sectors of the economy and for the large individual capital using projects; and that the greatest care should be exercised both in extrapolating past trends

> in the ratios and in applying ratios derived from one country's past experience to another country's future development.[66]

Growth Models. While comprehensive planning may be theoretically more desirable than partial planning, it is technically much more difficult than partial planning. Comprehensive planning is also more difficult in a mixed, market-type economy than in a socialized, command economy because it must make judgments about demand under conditions of changing prices and incomes, something which can be largely ignored in socialized countries which treat consumer demand as a residuum. The task of devising a workable comprehensive growth model is also made more difficult by the necessity for building into it the effects of technological innovation. This is not easy to do in the current era of rapid technological change. In India, for example, the planners did not foresee the striking development in petro-chemical technology which reduced the viability of the chemical projects based on coal tar distillates and coke-oven products included in the Indian plan. As a result, these projects have had to be discarded, thereby reducing the prospects for realizing aggregative targets in the Third Plan.[67]

The more detailed or complex the comprehensive model, the greater the amount of information required; the more it relies on mathematical deductions or decisions to determine the best among alternative targets, the more accurate and detailed the basic data must be. But even if the model is limited in scope and is prepared largely by pragmatic instead of mathematical methods, comprehensive planning requires a large amount of dependable data for past periods from which trends can be extrapolated.[68]

Mathematical models can provide useful information, but not as much as some advocates suggest:

> The mathematical mode of reasoning, which has become very popular in economics, has a distinctive advantage over the literary one, in that it is able to take full account of the interdependence of a large number of variables and to specify the relationships in quantitative terms, so that a better insight in the orders of

[66] UN. ECAFE. *Problems of Long-Term Economic Projections with Special Reference to Economic Planning in Asia and the Far East,* p. 103.

[67] See *Economic Weekly,* Vol. XV, No. 27, July 6, 1963, p. 1056.

[68] Colm, Gerhard and Geiger, Theodore. "Country Programming as a Guide to Development," pp. 15–16.

> magnitude of the phenomena involved is gained and the operational significance of the model is enhanced. But its importance should not be exaggerated, for it is not an alternative to common sense, and it can never entirely replace the non-mathematical method of approach. Social reality is much more complicated than the mathematical model, which is only an idealized and abstract picture of it—a simplification of economic life, like a map of a landscape, for convenient understanding and systematic study. To regard the model as a cut-and-dried solution of the growth problem, is to ignore the manifoldness of real economic life, which cannot be caught in a mathematical web alone.[69]

Techniques used to construct a model may be theoretically valid, yet yield nonsensical results. This is well illustrated by an experimental multisector aggregative investment planning model which *Nacional Financiera,* Mexico's official development bank, constructed in 1961 using a linear programing matrix with 1,900 coefficients. The results produced by the model indicated that if borrowing abroad between 1960 and 1970 were permitted to increase moderately over the 1960 level so that by 1970 the total was only $245 million instead of $172 million, the rate of Mexico's growth could be greatly accelerated between 1960 and 1970 from 5.5 per cent per annum to 8 per cent. In absolute amounts, this meant that

> a comparatively small increase in foreign funds [which in 1970 reached an upper limit of only $73 million] would help make it possible to achieve a difference in 1970 GNP of virtually $5 billion [$23.2 billion instead of $18.4 billion].[70]

A foreign adviser who worked with the group which prepared the model, writing about the results obtained, has indicated frankly that one would do well to be skeptical that so small an increase in foreign loans could make so large a difference in Mexico's growth:

> Results of this type are illustrative, but cannot be taken too literally. Any one of the 1,900 coefficients in the linear programming matrix could be in serious error. . . .[71]

[69] Adhin, J. H. *Development Planning in Surinam in Historical Perspective,* p. 176.

[70] Manne, Alan S. "Key Sectors of the Mexican Economy, 1960–1970," p. 388.

[71] *Ibid.,* p. 394. Although the model was considered experimental and the results untrustworthy, the author permitted himself to draw firm conclusions (p. 390) based on the results produced by the model about the role of foreign loans and aid in Mexico's future development.

As a laboratory exercise which may eventually be perfected into a usable technique for planning, the construction of such models constitutes a step in that direction. But the process is likely to be a long one and, given the state of the art and the inadequacy of the data, its practical application to planning lies far in the future. Meanwhile, these experimental activities necessarily divert scarce talent from more immediate and urgent planning tasks. This aspect of model-building was recently discussed at the 1964 ECAFE Conference of Asian Economic Planners. At that meeting, the construction of complex planning models was much criticized as inappropriate to the needs of most developing countries. One delegate, with considerable experience in development planning in Asia and elsewhere, said that he saw

> considerable danger in building overly sophisticated models, even for projection purposes. . . . What is needed are simple, straightforward formulations that can be used to measure past performance and to guide policy formulation for the future. We need methods that can be readily broken down to the policy level if we, in fact, are to give guidance to the decision-maker in the planning process.[72]

Planning models can be no better than the data on which they are based. To the extent that available information is a good measure of what is going on, models can be accurate representations of reality. But when otherwise good technique is applied to faulty information, the models must themselves depart from reality:

> The weakness of econometric, mathematical models . . . is *not* due to the fact that they are mathematical or that a numerical application is made . . . the crucial problem lies with the accuracy of the data. If they are reliable, it will not be very difficult to evolve suitable models. . . . Without reliable data our confidence must remain low. 'Intuition' and 'experience' and the like, unless they can be brought into sharp focus, are not substitutes. Either we have knowledge (of a certain type and quality) or we do not.[73]

"Up-and-Down" Procedure. Besides the difficulties encountered in building a suitable model, comprehensive planning requires that planning be carried out from "the top down" and from "the bottom up" simultaneously. This is not easy to do. It

[72] UN. ECAFE. [Conference of Asian Economic Planners, etc.] *Statement by Dr. Douglas S. Paauw, Member of U.S. Delegation on Agenda Item 4,* p. 3.

[73] Morgenstern, Oskar. *On the Accuracy of Economic Observations,* pp. 114–115.

> means that the size of the different programmes in different sectors and areas should correspond to what a balanced plan would require. This already implies that the projects which are complementary from a technical point of view are either jointly included or jointly excluded from a programme; to include only one of them obviously means waste. Thus, programmes in the field of energy and in the field of roads should both be geared to the desired or expected increase in general production in a region.[74]

French and Japanese planning, and among the developing countries, Yugoslav, Indian and Pakistani planning, come closest to using both the planning "from-the-top-down" and "from-the-bottom-up" procedures. However, both Indian and Pakistani planning have frequently been criticized for their failure to plan adequately "from-the-bottom-up." For example, in India,

> in 1955/56 the second plan planners, after fumbling a bit, simply stopped short of attempting to make explicit linkages between their aggregative plan and the specific investment (or project) choices along the route that conventional development theory seemed to indicate.[75]

As in India, most countries which attempt to plan comprehensively, particularly the less advanced ones, concentrate largely on the first procedure and neglect the second.

The Problem of Projects

Advocates of comprehensive planning in all countries regardless of their stage of development do not seem to understand that in most less developed countries the basic weakness is not the absence of a comprehensive approach to development planning, but a shortage of soundly conceived projects. This is even true of developing countries, like Pakistan, which have had a long planning history. Thus, Dr. Mahbub ul Haq, an official of Pakistan's Planning Commission, wrote some ten years after the establishment of Pakistan's central planning agency:

> The fundamental weakness of the First and Second Plans has been that the planning was not built in depth; whereas an effort was made to develop consistent, aggregative planning frameworks, not

[74] U.N. ECAFE. *Programming Techniques for Economic Development with Special Reference to Asia and the Far East*, p. 34.
[75] Lewis, John P. "India," pp. 99–100.

> enough effort went into filling these frameworks with well-conceived, well-engineered projects and programmes. This has had the double disadvantage of making planning somewhat theoretical and vague at the project level and creating difficulties in the way of offering an adequate portfolio of projects for purposes of foreign aid commitments.[76]

Most countries run into great difficulties, not in formulating over-all plans, but in preparing and carrying out projects and in operating them efficiently when completed. Guatemala inaugurated a public investment plan in 1960. But one year later, the Organization of American States reported that

> various ministries . . . are finding it difficult to present a sufficient number of fully developed projects.[77]

A shortage of projects which became apparent after the drafting of Chile's ten-year comprehensive development plan has impeded that plan's implementation. After the Five-Year Integrated Socio-Economic Program for the Philippines for the period 1962–66 was prepared, it became apparent that there were few projects ready to give effect to the Program. The Caribbean Organization reported in 1962 that in Surinam, which had a Ten-Year Development Plan in operation from 1955,

> the major problems encountered so far have arisen from lack of knowledge and experience in planning and project evaluation in the Ministries responsible for preparing projects.[78]

In Bolivia, a group of planners, largely composed of foreigners, prepared a national comprehensive development plan for 1962–71 which envisaged exceptionally high average annual increases of 9.2 per cent in the Gross National Product during the first five years and 8.3 per cent annually in the entire ten years of the plan period. But after working for a year and a half on the plan's preparation, the planners found themselves in the unenviable position of conceding that

[76] Haq, Mahbub ul. *Strategy of Economic Planning: A Case Study of Pakistan*, p. 21.

[77] OAS. Inter-American Economic and Social Council, etc. *Present State of Economic Development Planning in Latin America*, p. 29.

[78] Caribbean Organization. *Report of Joint Meeting of Planners and Planning Experts and Standing Advisory Committee of the Caribbean Plan*, p. 41.

> the principal deficiency that will be noted in the formulation of the present Plan is the small number of specific investment projects, studied in all their details, which have been included [in the Plan]. It is a most urgent task that the pre-investment studies whose economic justification is given at length in the different sections of the Plan are now completed, including the pertinent engineering studies, so that their execution may now proceed with the speed that the imperative conditions require.[79]

Moroccan planners found themselves in the same predicament as the Bolivians with regard to their comprehensive First Five-Year Plan. After its completion it was found that there was an insufficiency of well-prepared projects with which to carry out the Plan.[80]

When the Alliance for Progress with its promise of increased development funds was inaugurated in August 1961, those who believed that the lack of investment resources had been the main deterrent to economic progress in Latin America expected a quick increase in the region's rate of growth. But the Alliance got off to a very slow start. Investigation by a group of experts disclosed that although

> much [investment] credit has been granted during the last several years . . . only an insignificant amount of it has been used, and only a small fraction has even been committed.[81]

In seeking reasons for the delay in utilizing available investment funds, the Latin American Seminar on Planning, jointly organized in February 1962 by the Organization of American States, the Economic Commission for Latin American and the Inter-American Development Bank to discuss planning problems under the Alliance Program, concluded:

> The shortage of specific investment projects worked out in full detail partly accounted for the fact that the principles of the Alliance for Progress had not yet been applied as generally, or as intensively, as might have been wished . . . [and further] . . . the lack of specific public and private investment projects was one of the greatest obstacles to immediate action being taken on the required scale and as promptly as necessary.[82]

[79] Bolivia. Junta Nacional de Planeamiento. *Plan Nacional de Desarrollo Económico y Social, 1962–1971: Resumen*, p. 24.

[80] Waterston, Albert. *Planning in Morocco*, p. 49.

[81] OAS. Inter-American Economic and Social Council, etc. [*Report of the Panel of Experts to the Inter-American Economic and Social Council*], p. 25.

[82] UN. ECLA. *Report of the Latin American Seminar on Planning*, pp. 5 and 19.

The Pan American Union, which acts as the General Secretariat of the Organization of American States, was even more direct. In a report prepared for the First Meeting of the Inter-American Economic and Social Council, it stated unequivocally that

> the most immediate obstacle to the attainment of increased rates of investment as called for in the Charter of Punta del Este, is an acute shortage of fully worked out development projects.[83]

The shortage of projects is by no means limited to Latin America. The problem is world-wide. In his statement to the Second Conference of Asian Economic Planners, held in Bangkok from October 19–26, 1964, the U.S. representative pointed out that

> the value of the national plan is dependent on its component sector and project plans. . . . The lack of sufficient soundly conceived projects today constitutes a major obstacle to the implementation of major development plans, and we in AID [the U.S. Agency for International Development], as well as our colleagues in the Export-Import Bank of the United States, the DAC [Development Assistance Committee] countries, and the international lending agencies such as the World Bank are all very conscious of this problem.[84]

The World Bank is indeed conscious of the problem and, in one of a series of steps it is taking to deal with it has established two offices in Africa to help African countries prepare projects and programs, initially in agriculture and transportation.

The delayed recognition of the need for well-prepared projects in sufficient number to implement plans, exemplified in the Bolivian, Chilean, Guatemalan, Moroccan and Philippine cases, as well as in the Alliance for Progress Program, is a common occurrence in less developed countries engaged in comprehensive planning. In part, this is because planners, who are mostly trained as economists, are better versed in the broader "macro-economics" of model-building than they are in the "micro-economics" of project preparation and evaluation. In part, it is because in the short run no real choice of projects exists since most investment resources have already been committed for projects already started which governments will not abandon regardless of their

[83] OAS. Inter-American Economic and Social Council, Special Committee I, etc. *Programming for Development: Five Urgent Problems*, p. 5.

[84] US. AID. *Report of the United States Delegation to the Second Session of the United Nations Conference of Asian Economic Planners*, p. 3.

priority; and in the longer run, because in most less developed countries, operating agencies, departments and ministries do not know how to prepare sound projects and cannot furnish planners with the necessary data to permit projects to be integrated with the comprehensive plan through the planning "from-the-bottom-up" procedure already described.

This is hardly surprising in view of the shortcomings of administrative organization and the lack of technicians in most less developed countries. A comprehensive plan can be, and often is, completed in less developed countries by a few technicians, especially when assisted by foreign experts, without much recourse to the governmental machinery. But it is usually impossible for a government to prepare and carry out numerous projects without heavy reliance on its administrative apparatus. The government may obtain foreign technicians and contractors to help, but because of the character, volume, and continuing nature of project preparation and execution, great reliance must be placed on the government services. In Nepal, for example, as in many less developed countries, the Government found that

> the problem of economic development is more 'organizational' than anything else. In the way of mobilising resources—both domestically and internationally—framing and implementing various schemes, organisation may prove a bottleneck. The Government has therefore accepted that energetic and proper execution, phase by phase, of long term plans is not possible unless the organisation is powerful and supreme.[85]

But since administrative reform to improve project preparation and execution generally takes a long time to carry out, problems of project preparation in most developing countries are intrinsically more difficult, and take longer to resolve, than those encountered in the formulation of either comprehensive or partial plans. This does not mean that the preparation of a comprehensive development plan is easy. It does mean that while the technical aspects of preparing a comprehensive plan often present knotty economic problems, the programing, organizational and procedural aspects of preparing and carrying out projects to implement a development plan present serious problems not only in economics, but also in psychology, sociology and public administration.

[85] Pant, Y. P. "The Process of Planning in Nepal," p. 6.

Comprehensive planning has the capacity of exciting a planner's imagination because it can encompass an entire economy in a single model in which all potential problems can receive an objectively optimum resolution. Since the aggregates in a growth model can be computed without projects, there is a tendency for planners to become fascinated with the intricacies of planning methodology and the internal consistency of their aggregates, and to lose sight of the need for reconciling investment projects and programs with their models. But the heart of any development plan consists of projects. Regardless of the kind of planning, there can be no effective implementation without them. Unless projects are integrated with the comprehensive plan, the model bears little resemblance to actual public and private investment patterns. This is why in many countries,

> total, integrated economic planning can and often does co-exist quite amicably with, and may serve to cover up, unregenerated total improvisation in the actual undertaking and carrying out of investment projects.[86]

As has been indicated, the preparation of a comprehensive plan begins "at the top" with an aggregative analysis and ends, often much later, with the integration of projects with the aggregative plan, while the preparation of a public investment plan starts "at the bottom" with individual projects which are combined into sector programs and then into an investment plan for the public sector. This procedural difference has important effects because in comprehensive planning, as has been seen, the difficulties of the planning "from-the-bottom-up," i.e., the integration of projects with development plans, have tended to fixate planners' attention on the broader or "macro" aspects of plan formulation, while in planning for the public sector, concern with projects makes planners get involved in projects and their implementation from the start. This attribute of public investment programs was acknowledged by the previously cited group of ECAFE experts headed by Dr. Tinbergen. Although they favored comprehensive planning for all Asian countries, they pointed out that

> it must be recognized that, despite the limitations inherent in such an approach, these partial plans serve some useful purposes. They help to focus public attention on planning and development; they

[86] Hirschman, Albert O. "Economics and Investment Planning: Reflections Based on Experience in Colombia," p. 39.

> provide a useful framework of priorities for financial policy and budgeting; and they emphasize problems of implementation at an early stage. . . .[87]

The question therefore arises whether it would not be better for countries in early stages of development to start, as most of the countries with the longest and most successful experience with planning started, with partial planning. As long ago as 1951, a United Nations committee foresaw that

> nothing will be more disheartening and, in the long run, more disastrous than the failure to execute a fine plan or the abandonment of half-finished projects. If the choice is apt to be between waiting for a complete and perfect plan on the one hand, and making a concrete start on the basis of an incomplete plan on the other, the latter may under certain circumstances be preferable.[88]

Ten years later, the Economic Commission for Asia and the Far East, after reviewing the results of planning in Asia, came to a similar conclusion for several of the less developed nations of its region. It concluded that, because of

> their stages of development, it may be practicable for them to begin with a plan containing mainly a number of technically feasible and economically justifiable individual projects, without too much emphasis on aggregate income, employment targets and inter-industry coordination. . . . The important thing for these countries is to start in the right direction . . . development policies suitable to their economic system and needs should be designed and included in their first plans to guide, foster and stimulate economic activity in the private sector. The absence of income (and employment) targets would mean that the nation would be unable to grasp in a nutshell what the plan was meant to achieve; yet it would not necessarily deprive the plan of its operational value if the projects included are well conceived and development policies well designed.[89]

[87] UN. ECAFE. *Programming Techniques for Economic Development with Special Reference to Asia and the Far East,* p. 34.

[88] UN. TAA. *Standards and Techniques of Public Administration with Special Reference to Technical Assistance for Under-developed Countries,* p. 27.

[89] UN. ECAFE. "Economic Development and Planning in Asia and the Far East," *Economic Bulletin for Asia and the Far East,* December 1961, p. 2.

Planning of this kind has many gaps and imperfections. However, since planning is a continuous process, which implies that even the best plan is likely to need revision by the time it is published, refinement can begin immediately after the plan's preparation has been completed. Meanwhile, a country can have, in a period which should take no more than a few months, in most cases, an improved frame of reference for its investment decisions.

Countries like Mexico and Israel, as well as Puerto Rico, have been able to establish and maintain high rates of growth over extended periods with no more formal planning arrangements than a public investment plan co-ordinated through their budgets, accompanied by policies and a few measures which established a favorable climate for private investors and influenced them to react in accord with government development objectives. The empirical evidence therefore suggests that countries with reasonably integrated public investment plans and sound budgetary procedures can dispense, at least for a time, with comprehensive planning without seriously impairing their rate of growth.

In most less developed countries at the start of their development, it is easy to identify the critical sectors and the highest priority projects in those sectors, and to co-ordinate them in a public investment program produced pragmatically in five or six months. In these countries, agriculture, transportation and power are generally the most important economic sectors. In countries where water is scarce, irrigation is also important. There may be another sector with an obviously high priority in other countries. Liberia, for example, may have to develop transport and other facilities linked with the exploitation of its large iron ore deposits.

In each important sector, there are usually obvious projects of high priority. The danger in most less developed countries is not that their governments are less aware than outsiders of the high priority projects; it is rather that in seeking to promote development, governments often seek to advance more projects than available resources allow. As a result, progress on all projects is slowed. Progress is also impeded by disorganized competition in some countries among more or less autonomous public or semipublic agencies and local, state and central governments for foreign exchange, local currency and other scarce resources essential for carrying out investment projects and programs.

Rationalizing Current Public Investment

Many governments, including those of many countries which are attempting comprehensive planning, do not possess reasonably complete information of the magnitude and composition of current and proposed public investment. Since investments by autonomous or semiautonomous public agencies which use government funds are frequently carried out more or less independently of government budgets, governments have even less information about these investments or about the extent to which these agencies are committing the country's credit or foreign exchange resources by borrowing abroad, than they have about their own investment activities. Often, also, little is known about the investments and loan commitments of provincial and local governments.

In countries where adequate information on public investment is lacking, consideration should therefore be given to beginning the formulation of an integrated public investment program by rationalizing the size and composition of current public investment. As a first step in this process, an "inventory" should be taken of all public investment projects and programs being prepared for execution as well as those actually in process of execution. Since many countries also do not have reliable estimates of their budgetary surpluses on current account available for public investment, projections should also be made of estimated public investment resources available from domestic public savings and external contributions and loans. If the inventory reveals, as is likely, that more investment is being attempted or contemplated than can be supported by available financial and other resources, priorities have to be set for projects and programs by applying to them general economic, financial, technical and administrative criteria. These criteria should include, for each project and program, evaluations of (a) economic and financial costs and expected returns; (b) the reliability of cost estimates and methods of financing, including the adequacy of financial contributions by the sponsoring agency or beneficiaries of a project or program; (c) foreign exchange requirements and expected foreign exchange savings or earnings; and (d) readiness to proceed with a project or program on the contemplated scale (e.g., availability of a site, adequacy of engineering, marketing and other studies, status of bids and construction contracts,

training programs for management and staffs for completed projects, and so forth).

In some cases, funds may be earmarked by law for specific projects, work on some projects of low priority may be too far advanced to stop or there may be no alternative to starting a new project in order to make a previously started or finished project effective.[90] In such cases, it may not be feasible to apply the criteria. But where it is possible to do so, application of general criteria should permit substantial reductions in the number of projects. The arbitrariness with which judgments have to be made on the priority of projects which survive these tests, as among sectors, in order to bring the total volume of investment down to the level of resources depends, ultimately, on the priority which the government assigns each sector. From the review and evaluation of the inventory, a public investment plan can emerge with a pattern of capital expenditures phased over time which provides for the elimination of bottlenecks and the productive use of available public resources.

It is instructive to review the different ways in which this "inventory approach" was used in Mexico and Colombia as a basis for preparing integrated public investment plans in these countries. Soon after its establishment in 1954, the Mexican Investment Commission took an inventory of public investment projects in process of execution. For each project, information was obtained concerning its location, starting and probable completion dates, estimated cost, amount already invested, proposed future investment sources of financing, benefits expected and other data which made possible an assessment of the project. Data furnished by sponsoring departments and autonomous agencies were supplemented with information obtained by the Commission's staff on field trips to project sites.

A series of criteria was set up to determine the priority of each project: (1) the extent of the project's productivity as measured by the ratio of expected yield to estimated cost; (2) the expected social benefit; (3) the degree to which the project was related to other projects, either completed or under way; and (4) the amount of employment which the project was expected to generate after its completion.

The inventory was kept up to date. Sufficiently in advance of each

[90] Thus, a farm-to-market road might be essential to provide access to an adequate supply of milk for a processing plant nearly or already completed or a warehouse to store goods in transit might be necessary to a newly constructed port.

fiscal year, the Commission examined the programs which all operating offices in the public sector submitted. Projects in each program were studied from the point of view of the Commission's economic and social criteria and the degree of their co-ordination with other investments. Technical aspects were not reviewed since these were considered to be the concern of the operating organization responsible for the project. Before starting the review process, the Commission's analysts visited the locations of the proposed projects of those in progress to obtain first-hand information about the projects, the benefits to be expected, the need for additional works before benefits could be obtained, the status of the projects and the problems involved in their execution, as well as the need to co-ordinate construction with other projects.[91]

Much Mexican public investment was in projects whose benefits could be measured in monetary terms. For these, it was easy to fix economic priorities. For others, e.g., small and large irrigation projects, certain maritime, colonization and industrial projects, and agricultural investment in pest control, salt control and improvement in soils, it was possible to make reasonable approximations of their economic importance. But for some, like schools, hospitals and water and sewage works, as well as certain railroad and highway projects, where the benefits were intangible or otherwise not always measurable in money, decisions had to be made on the basis of considered judgment based on an analysis of probable benefits.[92]

In applying its criteria, the Commission generally gave expected economic and social benefits the greatest weight. But, on occasion, it had to give precedence to other criteria. Some works with low cost-benefit ratios had to be continued because large sums had already been expended on them and construction had proceeded so far that it was more economic to complete than to stop construction or because it was otherwise inexpedient to halt operations. Investments with low yields also were approved because they were located in economically and socially depressed regions. In other cases, projects went forward to meet the needs of a local or national emergency and, in still other cases, the form of financing made it desirable to proceed.

On the basis of its evaluation of proposed investment programs submitted by the operating entities, and information furnished by the Ministry of Finance and autonomous agencies concerning financial re-

[91] Salinas Lozano, Raul. "Comision de Inversiones," p. 16.
[92] *Ibid.*, p. 15.

sources available for federal investments, the Investment Commission drew up each year a preliminary integrated public investment plan which divided available funds among the sponsoring departments and autonomous agencies and by project, in accordance with the priorities established by the Commission. After the preliminary plan had been reviewed by the President of the Republic and put into final form by the Commission, it became the basis for budgetary allocations by the Ministry of Finance.

About the same time that the Investment Commission was making its inventory of Mexican public investment, a similar inventory was being undertaken in Colombia, where available data on the magnitude and composition of public investment were also inadequate. A World Bank mission, in co-operation with Colombia's National Planning Committee, took the inventory and used it to prepare an integrated public investment plan for 1956. A questionnaire, sent to a total of 71 public and semipublic entities which received contributions for investment from the national budget, requested the following information for every project sponsored by each entity: (1) an estimate of the time required to complete the project and, where available, starting and completion dates for construction; (2) who was to do the work (e.g., public staffs or private contractors or engineers and whether the last two were domestic or foreign); (3) an estimate of the cost in local currency and foreign exchange divided into annual amounts; and (4) arrangements made or contemplated for financing the project. A translation of the questionnaire (originally in Spanish) is in Appendix I.

Answers to the questionnaire were received from 51 of the most important ministries and public and semipublic entities. This information was supplemented with data obtained from (a) personal interviews with officials of operating ministries and agencies, (b) sectoral surveys previously completed in agriculture and electric power, (c) a World Bank regional survey of the important Cauca Valley and (d) a series of World Bank internal reports on Colombian transport, power, agriculture and other economic sectors, as well as on Colombia's financial, fiscal and economic capacity to absorb investment capital, prepared by World Bank staff members during the preceding six years. Although the response to the questionnaire was incomplete, it was possible with the help of the supplementary information to estimate virtually all the planned public investment activity in Colombia.

Since the combined investment programs of ministries and public

agencies for 1956 exceeded available public investment resources by almost 60 per cent, a series of tests had to be applied to reduce the total proposed investment to the level of financial resources. Projects to be started in 1956 were examined first to determine whether their technical feasibility had been established. Application of this test eliminated a number of projects, especially in electric power. The administrative readiness of the sponsoring entity to execute the project on the contemplated scale and to operate it upon completion was next examined. Application of this test resulted in reductions in the size of projects (e.g., in housing) or their elimination (e.g., certain municipal works in small communities which had inadequate staffs). The third test involved a consideration of whether proposed projects were appropriate for the Government to undertake under the conditions prevailing in Colombia and in the light of the traditional relationship between the Government and the private sector. Application of this test resulted, for example, in the elimination of a large project for construction of a cement plant by a government agency.

Application of the three tests brought about a reduction of contemplated investment in 1956 to an amount only 10 per cent above available public investment resources. Remaining projects were then submitted to additional tests in order to bring the total down to the level of available resources. These tests were more difficult to apply than the first three because they required information which was not always easy to obtain. Projects were examined in appropriate cases to determine whether policies and procedures existed to secure economically sound and equitable sharing-of-costs of the projects among governmental entities, or between public entities and private groups benefited. It was found, for example, that many communities were making an insufficient contribution to projects they were sponsoring and that they were relying unduly on contributions from the National Government. In many cases, especially those involving municipal improvements, no system of assessing private beneficiaries in proportion to their benefits gained from the proposed projects could be discerned. Where projects involved the production of goods and services to be sold on the market, attempts were made to judge whether there was an adequate market demand and whether the expected costs of production were reasonable. The scale of certain power projects was reduced on the basis of this examination and other projects were eliminated because more economical methods of producing power to meet demand were available. Because of the existence of a sectoral

survey for electric power, this test could be applied to power projects with reasonable assurance that the data used were reliable. In other sectors, the test rested on less satisfactory information. In the case of telephones, for example, the lack of data did not permit a careful study of each project from the point of view of the test. Instead, forecasts which had been made by autonomous agencies operating in this field had to be accepted. Finally, some judgments had to be made, often somewhat arbitrarily, on the relative priority of projects and programs as between sectors. In applying these judgments, those preparing the public investment plan were guided by the belief that Colombia's development required large expenditures for transportation, electric power and agriculture. Hence, soundly conceived projects in these three sectors were placed first. In view of the National Government's announced objective at the time to accelerate investment in water-works, precedence was also given to investments in this sector.

In preparing the public investment plan for 1956, assumptions had to be made about investments in later years. Some projects to be started in 1956 required additional resources in following years, while other projects to be started in following years required funds in 1956 for preparatory work. These factors were considered when the 1956 plan was being prepared by setting up tentative investment schedules for the 1957–60 period as implied by the investment plan for 1956. Thus, in making provision in 1956 for preliminary engineering studies for the expansion of Paz del Rio, the government steel mill, the public investment plan was in effect recognizing that heavy investments would have to be made for this purpose in later years. In turn, the prospect of future large investments in Paz del Rio required caution in initiating programs in 1956 which would call for large continuing expenditures. Those preparing the 1956 plan, therefore, decided against expansion of the housing program for 1956, not only because it appeared to be of low priority in 1956, but also because, if the program had been permitted to expand in 1956, it would have been extremely difficult to cut back in succeeding years.

While the results obtained from the exercise were far from perfect, they represented a great improvement over the haphazard way in which public investment had been proceeding. By reducing the amount of proposed investment to the level of resources on the basis of economic and other general criteria devised to improve the quality of public investment, an investment plan emerged which not only was designed to keep government expenditures in line with expected

revenues, but was directed toward executing projects and programs which promised to yield the greatest benefits.

As will be seen in the next chapter, the methods used in Mexico and Colombia to rationalize current public investment on the basis of an inventory of such investment may also be used to prepare a first annual operating plan for a medium-term plan period. Argentina made such an attempt in connection with its five-year development plan for 1964–69.[93]

However, a word of caution about the use of the "inventory procedure" is in order. Unless the inventory is limited to development projects which are under active consideration or in process of construction and, what is even more important, the taking of the inventory is followed by its rationalization through the application of appropriate tests to the projects and programs in process, the exercise is without value. In the Dominican Republic, Uruguay and Peru, for example, tripartite groups under the Alliance for Progress produced inventories of public investment projects which listed many projects which had never been seriously considered (in Peru, nondevelopmental projects like prisons were also included) and no attempt was made to rationalize the inventories to produce an integrated investment plan related to available resources.

SUMMARY AND CONCLUSIONS

To summarize, the kind of planning a country does is largely determined by the combined effect of its social, economic and political structure and its stage of development. Because of differences in structure and stage, the scope of national development planning at any time can and does range from the limited and piecemeal, project-by-project approach found in mixed economies in early phases of development to the comprehensive, centralized planning found in socialized economies. Over time, changes in a country's stage of development bring changes in its form of planning. For the socialized economies, this has generally involved a gradual shift toward decentralization of plan implementation and, for the mixed economies, a movement toward

[93] Translations of the general instructions and forms used by the Argentine National Development Council in connection with this effort are included in Appendix II. In addition to these, special forms and instructions to meet the specific needs of some autonomous agencies were also used.

greater centralization of both plan formulation and implementation.

The question, "Should a country with a mixed economy plan?" has given way to two others: "How much planning?" and "What kind of planning?" To the first, an imposing array of experts reply: "Comprehensive planning," and to the second: "Econometric model building." The experts have theory and time on their side. In the long run, comprehensive planning based on growth models may give better results than partial planning. Comprehensive planning's view of an economy as a whole and its emphasis on internal consistency allow economic comparisons and judgments to be made which are not generally possible in partial planning.

But this does not mean that comprehensive planning meets the pressing need for immediate action which exists now in most less developed countries. Indeed, a reading of the record suggests that less developed countries have fared better in practice, in both the short and long run, by first learning how to prepare and carry out integrated public investment plans than by going from *ad hoc* project preparation and execution directly into comprehensive planning. There is, of course, no way of comparing in the same place and time period the relative results obtainable from comprehensive and partial planning. There is, therefore, no way of proving conclusively that one variety of planning is better than another for a country in the early stages of development. But the weight of evidence and logic favors partial planning.

It is now widely recognized that most less developed countries lack an adequate supply of well-prepared projects ready for financing, as well as the administrative capacity to carry them out. But a few countries which, like Mexico and Israel, have learned how to formulate soundly conceived projects and to co-ordinate their execution through their budgets have demonstrated that it is possible for them to grow at a more rapid pace with partial planning than most other countries have with comprehensive plans. The economies of other countries, like India's and Iran's, grew more rapidly at first with partial planning than they did later with comprehensive planning. The experience in these countries suggests that comprehensive planning is not always better than partial planning.

Countries which have planned longest and most successfully began with partial planning. France, India and Pakistan, among others, all started in this way and went on to global planning at a later time. Yugoslavia began with a detailed, comprehensive five-year plan, but

soon beat a hasty retreat. Even in the USSR, the fountainhead of comprehensive planning, establishment of a totally planned economy was a gradual process which progressed only as the public sector was strengthened and planning methods were perfected.

Decisions to start with partial planning were based on practical considerations, like the lack of planning experience, the shortage of economists and trustworthy statistics, or the need to impart vigor quickly to stagnant economies. In these circumstances, theories usually gave way to necessity. The Commissioner General of France's *Commissariat Général du Plan* has pointed out that despite

> heated doctrinal debates, one cannot help being struck by the fact that in France *practical* planning preceded the *theory* by a long time.[94]

It is possible, as some have suggested, that the reasons which prompted France, India, Pakistan and other countries to start with partial planning may no longer be relevant, because more is known about planning technique than formerly. But the indications are otherwise. Comprehensive planning remains considerably more difficult than partial planning for the public portion of an economy. And a less developed country with a large subsistence sector, a poorly functioning market economy, untrustworthy statistics, an inadequate administrative organization and an inefficient civil service is still unlikely to overcome the complexities involved in formulating a realistic comprehensive plan and implementing it.

It is not enough to say, as some who favor comprehensive planning have said, that the need for development is so great that short-cuts to comprehensive planning must be found. The need is always great. But what is most needed in countries at the start of their development is the initial stimulus to their economies which public investment, usually by additions to the social and economic infrastructure, can provide, even at the risk of some imbalance. If that stimulus can be administered, as it frequently has been, with partial planning, comprehensive planning may be safely postponed until a country gains the experience and institutions needed for more advanced planning. The important lesson of the Mexican, Israeli and Puerto Rican experience is that it is possible for a country in the early stages of its development to grow rapidly over extended periods on the basis of partial planning largely limited to the

[94] Massé, Pierre. "French Methods of Planning," p. 1.

public sector. Conversely, when less developed countries borrow their ideas at too high a level and engage prematurely in comprehensive planning, they are likely to end up with less than they might have achieved with partial planning.

In Africa, as well as in other regions, it has been discovered that

> the planner was not often left with much choice . . . where planning was just beginning and most available investment funds were already committed to projects with long gestation periods. . . . Under such circumstances the use of highly mathematical techniques like linear programming and input-output tables was hardly possible.[95]

Indeed, the practical choice in less developed countries is often reduced to partial planning or no planning at all.

This has been the experience of the Alliance for Progress. Every Latin American country was originally expected to prepare a ten-year comprehensive plan in order to qualify for aid under the Program. But it soon became evident that most Latin American countries were unable or unwilling to prepare such plans, and that the few which were willing to formulate plans, would need much time before their plans were prepared. The Bolivian comprehensive plan has never been viable and almost nothing has been done to implement the Colombian ten-year comprehensive plan. Instead a Four-Year Public Investment Plan has become the basis for co-ordinating public capital disbursements. Only Chile, Ecuador and Venezuela still have comprehensive plans, but they have had little influence on private investment. The emphasis within the Alliance for Progress has now shifted from long-term comprehensive planning to short-term public investment planning. The Alliance's Committee of Nine has approved a two-year public investment plan for Honduras and has recommended that Bolivia and other countries prepare similar plans.

Experience in Latin America and elsewhere shows that if planners attempt too much by insisting on comprehensive planning, the preparatory stage is likely to go on indefinitely without tangible results. It may also lead to disillusionment with planning. With almost prophetic vision, Dr. Oskar Lange cautioned the Ceylonese planners who were preparing a national ten-year comprehensive plan against waiting the two years he estimated it would take to prepare the plan:

[95] UN. ECA. *Report of the Meeting of the Expert Group on Comprehensive Development Planning*, p. 11.

> The country can hardly afford such a loss of opportunity through lack of action. Furthermore, inactivity during the period of preparation of the development plan would undermine the nation's faith in the efficacy of economic planning. This might create a stage of apathy and even scepticism towards economic planning which later would make it difficult to mobilize the support of the people when the plan is ready. It also would make it difficult to enlist the full active effort of the people in carrying the plan into practice. It might even be used as an argument for discrediting economic planning.[96]

Those who would bypass integrated public investment planning and make a great leap forward with comprehensive planning are not likely to arrive at their destination sooner. It may well take them longer. *Festina lente,* hasten slowly, is the best advice one can give them. Although fruitless detours can be avoided by reading the signs left by those who have traversed the same path, the journey must be expected to take time.

The system of national planning should therefore be permitted to evolve gradually, firstly, as soon as possible, from the project-by-project approach to a second stage in which the country learns how to prepare and implement a co-ordinated public investment plan preferably accompanied by sectoral surveys and programs; and ultimately, when improvements in information, administration and experience permit, to full-scale comprehensive planning. The kind of planning which is right at a later stage is wrong at an earlier one. As Professor Galbraith has pointed out,

> we could make no more serious mistake than to imagine that the kind of planning that is done by India or Pakistan is essential for nations in all stages of development. In earlier stages it is neither necessary or possible.[97]

The most urgent need in most less developed countries is the speedy formulation of an immediate action plan for advancing development. The rationalization of current public investment through the application of general economic, technical and administrative criteria to an inventory of current public investment offers one effective way of meeting this need. It has been found possible to rationalize the pattern of current public investment by the methods outlined in this chapter in

[96] Lange, Oskar. "The Tasks of Economic Planning in Ceylon," p. 80.
[97] Galbraith, John K. *Economic Development in Perspective,* p. 16.

a period of a few months. This technique has been used successfully in Mexico and Colombia. From the rationalization of the inventory through the use of appropriate economic and other general criteria, priorities for projects can be determined and total public investment can be reconciled with resources to produce what is, in effect, an integrated short-term public investment plan.