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THE PLANNERS AND THE PROJECTS

by

WILLIAM C. HOLLINGER

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I

All those concerned with the development of the presently underdeveloped countries - advisors, aid givers, and the countries themselves - have been for some time uneasy about the continued paucity of specific projects needed to fill up the proposed aggregate programs and the severe problems this "project gap" creates for both planners and aid givers. There is an absolute shortage of projects relative to stated objectives and even to stated availability of investable resources. The short fall in projects is even greater when the quality of many of the projects that are on the shelf is considered.

There continue to be, however, divergent views about the proper resonsibilities of planners with respect to the problem posed by the project gap, and, more generally, the relationship between projects and planning. Do planners have a responsibility to increase the supply of projects, or only to encourage others to eliminate (increase) it, or should planners view the availability of projects as a datum from which their exercises must start, at least for the short-run? Two recent contributions to the literature highlight the sharply differing approaches to this problem:

> At this point, however, the planning organization approaches an important turning point in its career . . . it inevitably begins to mix in the day-to-day activities of the ministries. The problem then arises of how deeply it should become involved in operations. The planning organization is faced with a choice of taking over much of the work pertaining to development previously carried out by the ministries and other agencies of the government, or restricting itself to something else - which, for lack of a better word, we shall call planning. . . . A wide-awake and conscientious planning group <u>can</u> avoid this slippery path by constantly exercising self-control.[1]

> The current artificial separation between plan formulation and implementation accounts for the failure of planners concentrating on the macro-economic aggregative or overall aspects of planning to recognize soon enough that the basic weakness in most developing countries is not the lack of an elegantly integrated comprehensive plan based on economic potentialities, but the inability to prepare sound projects, carry them out and operate them efficiently after completion.
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> Because it usually takes several years to identify and prepare good projects in the quantities needed to implement a plan it is too late for planners to become concerned about them after a plan has been prepared or even when it is being formulated.[2]

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1. Watson, A. and Kirlan, J. B. "The Impact of Underdevelopment on Economic Planning; <u>The Quarterly Journal of Economics</u>, Vol. LXXIX, No. 2, May 1965; pp. 174-76.

2. Waterston, A. "What do We Know about Planning?" <u>International Development</u>, December 1965, Vol. VII, Number 4, p. 8.

What is the proper work of planners? To what problems, issues, or exercises should they devote their energies? While there is no unique list of possible functions, the following six candidates for the planners' attention would seem to cover most of the possibilities: macro-frameworks and long-term projections, policy issues, coordination, project evaluation and selection, project preparation and project execution. I propose first to make some general observations on the appropriate role of the planners with respect to these activities; then, to discuss the relative importance of the project's problem, what seems to me to be some of the important factors that in practice complicate that problem, what can be done to improve performance in this area, and the planners' responsibilities in regard to this whole range of issues. In all of this I will draw heavily on Pakistan experience.

II

But first let me set the limits of the discussion in this paper. There has now grown up an extensive literature dealing with the techniques of choice between alternatives in the development process. A very large amount of high quality technical competence has been brought to bear in the production of this literature and, happily, a surprising degree of agreement has been achieved and many previously unresolved analytic points have been settled. (Unfortunately, much current practice still does not reflect this analytic progress, e.g., the continued use of internal rates of return in spite of the fact that it is now clearly established that this is a most untrustworthy guide to investment decisions.) There is also by now a very extensive literature dealing with the psychological, sociological, and political environment within which the investment process must evolve in an underdeveloped country and which to a large extent shapes that process. This discussion attempts to focus on neither of these two important ranges of issue. It is concerned with the question of having enough investment alternatives to which the selection techniques can then be applied. While undoubtedly the impediments to adequate project preparation have much to do with psychology, sociology, and politics, and many of the things to be said will have implicit assumptions with respect to these dimensions of the problem, I will focus on the economic, administrative, and organizational aspects of the problem.

III

Like so many dichotomies, "planning vs. policy formation" and "planning vs. implementation" are largely unreal. These are not distinct activities, but rather highly interrelated and interacting aspects of the same process. At least this is true if planning is conceived as I conceive it. Since there are many ways to define planning, however, it will be helpful to state the concept of planning underlying this particular discussion. Planning involves a conscious, serious effort by a government to achieve a consistent set of announced goals on the assumption that the goals would not be attained without such an effort. It involves the rational use of all the resources at the government's command - not only financial and investment resources, but also policy instruments, persuasion, etc. - in the pursuit of the goals. The government must structure its administrative arrangements in such a way that the needs of development effectively shape government operations. Planning involves being explicit about things that would otherwise be implicit. It requires that policy and investment decisions be made with substantial reference to stated economic and social objectives and

that in the process of arriving at these decisions the opportunity costs have been weighed, general equilibrium considerations have been taken into account, and the society's time preference has been adequately reflected.

Whether a country is planning or not, does not depend upon whether it has an explicit planning organization or produces documents called "plans." If a government undertakes planning in the broad sense defined here, it will, of course, in most cases, find it administratively and analytically more efficient to have planning organization and produce plan documents. This is because these are ways in which the work is found to be best organized. While they are of importance psychologically, planning agencies and plans will be significant only if economic questions are accorded high priority by the government, the answers to these questions are pursued seriously, and the attention devoted to them is continuous. Plans are neither the beginning nor the end of planning. If they must be "placed" it is best to think of them as in the middle of the process. They are not the defining characteristic of planning.

If this is a correct view of planning, planners are properly concerned with policy, even short-run policy since policy performance strategically shapes what happens to investment both in the short and long run. If planning is to bear fruit in an increased growth rate, policies--monetary, fiscal, import, industrial, educational, etc.--must all be conducive to growth and consistent. Planners must view it as part of their task to play a constructive staff role to the policy makers. True, the decisions typically will be made by politicians and to a large extent for political reasons. This is as it should be. But the politicians should not be deprived of the benefit of a persuasive presentation of the planners' views and analysis.

More than this, planning clearly includes, in some sense, implementation. To make clear in what sense it is necessary to distinguish between different kinds of government activities: the decision process in which a government decides what it is going to do; the allocation process in which a government decides what resources it is going to devote in a given budgetary period to the things it has decided to do; and the day-to-day operations of the "sectoral ministries" in which it does those things. It is also helpful to distinguish between "involved with" and "concerned with." By "involved with" I mean to have an operating responsibility, by "concerned with" I mean to have a right to express and press one's views in the councils of government.

The planners must be not only concerned with, but involved in, the decision and allocation processes. The quality of the decision and allocation processes is integral to meaningful planning. For the third category of government activities there are some ways in which the planners are concerned, but to become involved would be administratively, and politically, inadvisable. The planners are concerned with the general principles of administration in use throughout the government, and therefore within the operating agencies. In addition, the planners must be concerned specifically with such problems as the techniques and standards of investment proposal formulation and evaluation.

IV

Before turning in detail to a diagnosis of the project problem, is there anything that can be said about the relative importance of the project gap over the course of a typical development process? It has been emphasized above that a

sharp distinction between planning and implementation is misleading. This suggests that planners will normally have to divide their attention between both macro- and micro problems. Furthermore, if a successful development is mounted the total requirement for projects will grow over time. Thus, on the one hand, it can be expected that there will never be a stage in the planning process when macro-exercises will not be important, and, on the other hand, the project problem will always be with us. Nevertheless, the relative importance of the project gap does seem to change over the course of development. This has certainly been true in a number of cases including Pakistan.

Put in grossly oversimplified terms the general pattern seems to be as follows: Analytically, in almost all cases, planning must start with macro-considerations. Present levels of GNP and growth rates must be calculated and overall targets set in terms of the aggregative savings and investment requirements of alternative increased GNP growth rates. Frequently, aggregative balance of payments considerations must loom large in the initial planning effort. Ready projects will be scarcer, however, at the earlier stages of development than will be true later. Thus, in the earlier stages of development macro-analysis will be limited largely to very aggregative considerations mainly dealing with the categories of national income analysis [illegible] in money terms and the project problem will require a major share of the planners' attention. Gradually the project gap will be closed and macro-analysis of the inter-industry and stru-tural types will assume increasing importance. As project preparation gathers momentum macro-considerations will come to dominate the planner's attention, but never exclusively monopolize it.

The relatively great importance of the project problem in the early stages of development is not surprising. The initiation of a conscious development effort is almost certain to take place at a time when projects are being developed at too slow a pace. In fact, the development effort is initiated partly for that reason. Viewed the other way round, the start of a development effort itself raises the demand for projects. This relative importance of the problem of increasing the supply of available projects is likely to continue for some time. In the first place, it takes much longer to prepare each project than the uninitiated is likely to suspect. Waterston cites five years for water availability studies in a hydro-electric project and three years for a major road project as examples.[1]

Secondly, in the early stages of development it is often relatively obvious what must be done. The chances of making costly investment mistakes because a full programming framework has not yet been developed by the planners are much less in the early stages of the process.[2]

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1. Waterston, A., op. cit., p. 9.

2. The obviousness of the early steps in the development process plus the relatively greater importance of the project gap as development starts has tempted many authors into advocating planning from the bottom up. Waterston, for example, in the article already cited, comes to this conclusion. This seems to me to be a no more tenable or useful approach than the opposite extreme. The initial projects are obvious only in terms of some objectives already selected in terms of some macro-analysis.

After development has proceeded a certain distance, however, the risks rise rapidly if further investments are decided upon without careful analysis of inter-industry relations, manpower requirements, dynamic relationships, balance of payments implications, and all of these in the setting of a long-term model of the economy.

V

There are many reasons that not enough projects are developed rapidly enough, and these reasons are generally not very subtle. The remedies also are largely simple to identify. The real difficulty is in getting all the appropriate people, and they are numerous, initiating the necessary actions throughout all layers of the government apparatus and the private sector.

The ultimate cause for the project gap is the same as that for most of the problems encountered in initiating economic development--inadequate resources, knowledge and experience. The relevant resource here is the supply of individuals who understand the problem and are capable of contributing to its solution. Nevertheless, as is often the case in other aspects of the development situation, actual performance is probably not up to the levels that the available resources would permit. Part of the explanation for this would seem to be that planners are often lethargic about the need to develop specific project plans to flesh out the aggregative and sectoral targets proposed. Planners should be acutely conscious of the project gap and anxious to encourage its elimination, but frequently they are not. There are many reasons for this. Conscientious planners are among the most overworked group in many underdeveloped countries. The perfectly legitimate initial focus on an aggregative planning approach too often leads the planners to forget that this is only part of their work. Further, this emphasis causes "planners to tend to pay more attention to problems of consistency than to questions of prospective yields."[1] All of this makes the individual planner less conscious, than he otherwise might be, of the need to search for elements of the program that do have priority over others and for missing elements in the portfolio of ready projects.

The problem is compounded by two further factors frequently found to characterize the performance of the developing countries: the nature of project preparation and evaluation is misconceived in a way that inhibits the effective allocation of available skills; and failure to develop the inter-sectoral and inter-agency dialogue from which many of the investment possibilities will emerge. For these and other reasons there is seldom a general search of sufficient vigor and on a broad enough scale for project possibilities, particularly in the public sector. Private sector performance in this regard probably shows a much higher variance as between countries. I return to these two factors in some detail, Sections VII and VIII, below.

VI

Present practice in a number of countries seems to be roughly as follows. By some means or other, certain projects are conceived. These tend to be the obvious projects - a country has to have a minimum of port facilities or roads;

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1. Mason, Edward S. On the Appropriate Size of a Development Program, p. 18.

extensions of existing facilities - the next stage in processing a raw material; and more of the same - new units in the existing, familiar industries. Usually before much analysis has been made such major characteristics of the project as size, product mix, location and prices are specified, a process involving implicit decisions on a number of economic questions. Project design of varying roughness or completeness is prepared either by the staff of the sponsoring agency or by consultants hired for the purpose. A cost estimate is based on these designs with varying degrees of accuracy and relevance. At this point, if a lending agency is approached it typically requests two things: "an economic justification" and considerable refinement of design and cost estimates. The sponsoring agency then takes these in hand simultaneously. A consulting firm, typically an engineering firm, is given a contract to prepare the feasibility study which specified in its scope of work that the basic job to be done on the economic side is some variant of a partial equilibrium benefit/cost measure of this particular plant with given size, location, product mix and technology. Simultaneously, the consulting firm that did the engineering plans (sometimes the same firm that is awarded the feasibility contract and a commitment for the construction contract) sets to work doing expensive and time-consuming design and costing work. After these two studies are completed, the crucial decision is taken. The project is approved for implementation and a loan is granted if the benefit/cost ratio is equal to or greater than one, rejected if it is less than one.[1] Typically, few questions are asked as to the assumptions or coefficients used in the feasibility study; discount rate, prices, etc. Seldom are alternatives weighed; alternative locations, technologies and sizes, and alternative projects to meet the same objectives..

VII

It is my contention that in present practice as outlined above project development suffers from an inappropriate definition of the investment decision. Clear thinking on the nature of this decision is muddied by the frequent confusion between it and another decision; namely, how to implement a project once it has been selected. These decisions are not only confused with each other, they are often incorrectly assumed to be the same decision.

The decisions are logically separate and a large part of the work that goes into the second decision should typically follow the first in time. For efficient decision making, they should not be taken simultaneously, certainly not as if they were the same decision. This is for several reasons. The raw material necessary for making each differs significantly in character. A decision whether or not to undertake a particular investment or initiate a new program is concerned with its economic characteristics and the relationship of these characteristics to the whole development program. The very use of the

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1. The question to be decided is whether the project at hand qualifies as a sufficiently high yield investment to make its implementation an appropriate allocation of the available resources. In practice, however, the decision frequently emerges from negotiations between two parties neither one of which has this question in mind. The sponsoring agency's main concern is to have a program that keeps its staff busy and maintains its prestige; the aid-giver is frequently concerned with finding a "bankable" project--one whose direct net expected returns, realized or imputed, are positive, although these direct returns may mask high opportunity costs or result from costly subsidies.

term "feasibility study" to designate most pre-investment analysis is itself analytically inappropriate. Except in the trivial sense of simple physical feasibility (which is seldom if ever the issue), the question of "feasibility" can only be raised about a total program--are the resources adequate?--but is irrelevant for individual projects. Projects are all feasible at some cost. The real question is "are they worth it?"

It is necessary to recognize at the outset that the investment decision involves an irreducible minimum of uncertainty and risk and that it typically must be taken on the basis of judgments about a few key considerations. Preliminary designs and engineering necessary to make reasonably firm estimates of construction and operating costs and of output are a necessary condition for a sound investment decision. But surrounding this decision with any amount of detailed data will never eliminate the uncertainty, especially uncertainty on benefits, and the effort to do this will rapidly run into diminishing returns in contributing to judgments on the key issues in any investment decision. One often gets the impression, however, that decision makers do think [illegible] tailed engineering eliminates [illegible] investment and that full design is a sufficient [illegible] proposal.

Thus, in current practice [illegible] in considering both too many [illegible] engineering considerations and too few economic variables [illegible] considerations, external economies and diseconomies, dynamic effects [illegible] impact on skills or the level of technology in the economy are notable examples), and the functional relationships between price, incomes, supply, and demand frequently receive little or no consideration. Feasibility and market studies typically assume that present prices will prevail indefinitely and that future demand will be a simple (usually linear) projection of past sales. These assumptions are made even though the project itself may often imply a major relative increase in available supply or there may be reason to think demand is inelastic, and even though the process of development, by definition, entails diversification as well as expansion, of the final bill of goods.

In addition to assigning a role to engineering designs that they cannot fulfill legitimately, premature substitution of detailed engineering for economic analysis has two important costs. First, detailed design is a heavy consumer of scarce engineering talent. Commitment of these resources to the detailed design of a project that is subsequently postponed or rejected has a very high opportunity cost.

In Pakistan the water and sewerage projects for Dacca and Chittagong are good examples of this waste of resources. Detailed engineering including layout and specifications were started in 1959 and completed in 1961. This effort absorbed the services of a full team of expatriate engineers and considerable Pakistani resources in the form of counterpart personnel, office space, etc. The final details of financing and implementation are still being worked out. In the meantime, the financer has changed and the new aid-giver has scrapped most of the previous work requiring a new commitment of resources to engineering the same projects.

Second, the preparation of full designs, representing as it does a heavy investment of a scarce resource, has the effect of foreclosing a really free choice in the accept-reject decision. The very existence of the project gap [illegible]

projects relative to its own resources or available aid, any project for which designs have been prepared looks very good. Again from Pakistan the Salinity Control and Reclamation Project (SCARP) No. 2 furnishes a case in point. By the time a decision was taken to go ahead with this groundwater and drainage scheme to cope with the problems of water-logging and salinity in an approximately million acre block of West Pakistan it was known that this was not the best way to deal with the problem. The project, however, was fully engineered. This made it so tempting to the authorities, both domestic and foreign, anxious to book up their development and aid funds respectively that it was decided to go ahead anyway. Subsequently, they had to back off and substantially revise the project.

How far should the engineering preparation be pushed? Perhaps an acceptable working principle would be: the design work should be sufficient to reduce uncertainties as to cost estimates to a level equal to or below the uncertainties inherent in the benefit calculations.

All of this is, of course, [illegible] in the standard [illegible] on investment decisions.[1] It is belabored here because so much current practice in the developing countries seems to run counter to this advice.

One of the most general reasons for market failure, and hence one of the reasons for planning itself, in the developing countries is the inadequate knowledge available to the individual decision maker about what is happening elsewhere in the economy. This is true not only of the private industrialists with respect to each other and to the government but is true between individual agencies of the government, often even in the same sector, e.g., railroads, highway agencies, and port authorities. The flow of information and the level of dialogue are particularly underdeveloped in the underdeveloped countries. Even the most obvious comparing of notes is often neglected.

Leaving aside Hirschman-type considerations of the dynamic role of bottlenecks or excess capacity, it is obvious that ultimately the timing and size of additions to power and transport capacity must fit the derived needs of growing production elsewhere in the economy. It cannot be assumed, however, that this simple-minded notion will be acted on adequately or early enough unless the planners act as gadflies. In Pakistan, for example, it would be relatively easy to project industrial capacity "going on line" for at least five years in advance. Part of such capacity is in the public sector for which the government has full access to construction schedules. For the private sector licenses and subsequent reporting of some form are required for key elements in the construction process (foreign exchange allocation, import permits, land acquisition, etc.) and average lead times and gestation periods are fairly easy to establish. Yet it was not until 1962 that the first effort was made in East Pakistan to collect and tabulate this data on new industrial plants and make it available to the power people, and this was done at the initiative of the planners, not the power people or the industries department.

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1. Bierman and Smidt, The Capital Budgeting Decisions, p. 71.

The transport story was similar. It was only in 1964 that any comprehensive efforts were made to develop projections of transport requirements from comprehensive projections of growth of industrial and agricultural production.[1]

IX

Before suggesting an approach to project preparation and evaluation that, I hope, clarifies the issues, let me cite an example from Pakistan that illustrates a number of the pitfalls of much current practice. It was decided that West Pakistan should have a steel mill of 250,000 tons capacity. Given this decision, it was "obvious" that East Pakistan should have a steel mill and that the "appropriate" size would be 100,000 tons. A design contract was awarded to a Japanese steel firm and a feasibility study contract was awarded to a Japanese consulting institution associated with the Japanese steel industry. Plans and feasibility studies were delivered simultaneously. The feasibility study indicated that the plant would just squeeze by on the benefit/cost of thumb (benefit/cost). When the representatives of the Japanese steel were asked if their company would take an equity position, their answer Why? Because the plant is uneconomic. When then asked if, given their of the economic situation in East Pakistan and other proposed developme was there a steel mill alternative that they could think of in which the company would take an equity position their answer was "Yes." How would it differ would be larger and would have a different product mix. When they were then asked why they had drawn the detailed plans for a steel mill that they thought uneconomic without raising this question, their reply was that they had done both jobs in response to a request of the Government of Pakistan which request specified the size of the plant, the product mix, location and prices. Japanese industry believes in satisfying the customer.[2]

X

What then is the sequence of events and distribution of roles and responsibilities that would avoid the shortcomings so common at present. The decision making that finally results in an implemented project is an iterative process in the successive stages of which the relative role of economic analysis and of engineering are reversed: economic analysis and judgment predominate in the early stages and are progressively replaced by design and engineering. Put this baldly, this is a simplification, of course. It does characterize, nevertheless, an essential distinction between the decisions "to do it" and "how to do it."

The period prior to detailed design is now usually referred to as the "pre-investment period"; the decision to undertake an investment dividing the pre-investment period from the detailed design phase of a project. To analyze

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1. Cf. Transport Planning Group, Note on Transport Requirements for Agricultural Commodities, Oct. 1964; Transport of Industrial Goods, Sept. 1964.

2. It is interesting to note that the respondents to the West Pakistan tender, being required to take an equity role, urged, and the government accepted, an in-

the double problem mentioned above - the project gap itself and the inappropriate merging of the investment and design decisions - it is useful, not only to distinguish the pre- and post-investment decision stages, but also to think of the pre-investment period as falling into two parts:

I. The pre-pre-investment phase. This period covers the continuous, perceptive, across-the-board search, described above, for attractive, previously unidentified investment opportunities, focusing on the country's resources, its present production structure, known trends in market and technology, and the country's announced aggregative plans. This is easy to state, but more difficult to carry out. It requires a rare blend of sophistication and common sense. Although it sounds vague, it is important. Success here depends upon having a high batting average with back-of-the-envelope educations. It is unlikely that all good investment opportunties will be spotted, but high return investment possibilities will be identified that otherwise would have been overlooked or at least discovered much later. These are likely to be projects of the following types:

1. Projects that remove existing bottlenecks which have not been previously recognized as removable bottlenecks. Examples of this sort of project "discovery" can be cited from Pakistan. Jute manufacturing is a vitally important industry. All the machinery for the industry comes from abroad, primarily the United Kingdom. Normal ordering and shipping time for spare parts requires several months for delivery. The foreign exchange bottleneck makes it difficult to maintain adequate inventories of spares and the occasional resultant loss of production was accepted as part of the nature of things. While an important industry, it is not sufficiently large to support a full-fledged machinery industry. Only after bottlenecks were systematically scanned, looking for leads on investment opportunities, was it discovered that several spare parts were needed with sufficient frequency to justify domestic production. Further investigation showed that Pakistan could cope with the technological requirements of this production, had the necessary raw materials, and could produce the spare at competitive costs, not only saving foreign exchange but also reducing production delays in the largest foreign exchange earning industry.

Another example from Pakistan is furnished by the problem of port development in East Pakistan. Transport is a severe bottleneck in East Pakistan, especially transport of imports and exports. Traditionally, there was one port, Chittagong. Efforts to cope with the increase of imports and exports initially focused exclusively on efforts to expand Chittagong's capacity, but Chittagong is poorly located with respect to the rest of the province. Movement out of the port is severely restricted by physical bottlenecks whose removal would be very costly. Again, it was only when a general search for alternatives was made that took into account the total pattern of transport origins and destinations within the province, and the existing internal links between these, that a previously unidentified investment opportunity was spotted. This alternative, the development of Chalna, anchorage, on the Pusar River, has turned out to be a very high return investment opportunity.

2. Projects that are implicit in announced programs, the provision of which will avoid future bottlenecks. The classic example in a number of countries, including Pakistan, is the frequent failure to recognize the

need for substantial investment in transport and storage facilities required for the success of other programs that are going to be undertaken, e.g. fertilizer production and PL 480 programs.

3. Projects that recognize an opportunity for a joint product previously overlooked or for the utilization of waste materials. An example of the former from Pakistan is the case of urea formaldehyde. The Fenchuganj Fertilizer Factory produces urea fertilizers. East Pakistan has a plywood industry and is developing a pressboard industry. These both require urea formaldehyde as a binding agent. This was imported. A comparison of the possible product mixes at the Fenchuganj fertilizer factory with the known chemical requirements of existing industry turned up this chance for import substitution. One would want to be sure, of course, of the comparative advantage aspects of this import substitution before commiting resources to an investment in it. The point here is a different one. Project plans too often settle on a single end use for an existing natural resource. Until relevant alternative output mixes are considered the scope for applying comparative advantage [illegible] severely restricted.

The basic responsibility for stimulating this general search for projects should vest wherever the central responsibility for planning lies in the [illegible]. Planners have this general responsibility for two reasons. First, failure to fill the project gap is a planning failure that hampers their general efforts. Second, as has been emphasized above, many of the best leads will emerge from cross-sector "input-output" type comparisons and their discovery might fall between two stools if there were not a "central" interest. This, of course, again emphasizes that even in earliest stages of development, focus in the project problem does not exclude macro-analysis. The solution of the former requires some of the latter. The job of identifying project possibilities should be done, however, by anyone who can be stimulated to do it, including not only planners and all agencies of the government, but the private sector as well. In the public sectors, the planning authorities should encourage the formation of sectorial planning groups aimed, at a minimum, at collecting and diffusing the relevant information, and for the private sector, planners might well take the initiative in organizing a dialogue between government and private investors, somewhat along the lines of the French model.

II. The pre-investment stage. In the pre-investment stage proper, data on the investment possibilities generated by the process described above, those specifically mentioned in the development plan or program, and those suggested by individual sponsoring agencies, should be prepated in sufficient detail to permit a decision to do or not to do the project. It is particularly to this essentially entrepreneurial decision that the strictures on the relative roles of engineering and economic analysis in section III above apply.

Responsibility for preparing an individual project for the investment decision should rest with the individual sponsoring agency. Wherever such machinery does not exist, the establishment of specialized staffs in the sponsoring agencies to do this job should be encouraged. The planners' responsibilities are:

1. to define criteria, set standards, and encourage improvement in project preparation by the individual sponsors;

2. to coordinate efforts in this area, and in particular to see to it that the alternatives are weighed; and

3. when assigned the responsibility, to make the public sector investment decisions and accord priorities to the individual projects. Investment decisions over a certain size are likely to be taken by an authority higher than the planning agency. The planning agency should typically, however, provide the secretariat function to this process.

III. The Implementation Stage. In this phase, narrowly defined as the design and construction of the project, engineering takes over almost completely. The only qualification to this generalization would be revisions in design or objectives that might be indicated by new economic considerations that become apparent after the original decision and before project construction has reached the point where such changes are precluded. This is a task for techni[illegible] either the staffs of sponsoring agencies or hired consultants or [illegible] The planners' role in this area is [illegible]ited to defining [illegible] perhaps offering technical assistance in defining the scope of [illegible] engineering contracts. The planning authorities have, of course, [illegible] responsibility to help formulate and press the government to adopt [illegible] price, tax, subsidy, and foreign exchange policies that will be [illegible] success of the projects undertaken.

XI

What specifically has been the order of magnitude of the project gap in Pakistan and what has been Pakistan's experience in closing the gap? It is my contention that projects were a dominant problem, perhaps the dominant problem, in the early years of the Second Plan, and have become far less of a problem by the end of the Plan.

It is, of course, impossible to be precise as to the size of a project gap in any country at particular stages of its development. There are both conceptual and statistical difficulties. When is there a project gap and when only a plan that is inappropriately large? By its very nature the concept of a project gap contains a large element of "might have been." In one sense, the project gap concept is a variant of the absorptive capacity concept, and, as such, shares in all the definitional pitfalls of that concept. The problem of measurement is complicated by the fact that the development effort itself is a major determinant of absorptive capacity. One could even say that planning is undertaken precisely to increase absorptive capacity. Planning raises the rate of return on projects generally, and ipso facto increases absorptive capacity to the extent that it succeeds in achieving more coordination between inter-related projects (exploiting complementaries) than would have taken place without planning; and/or an increased growth rate (permitting greater exploitation of inadvisabilities giving greater scope to economies of scale).[1] Furthermore, planners

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1. For the definition of absorptive capacity implicit here, cf. John Adler; "Absorptive Capacity: The Concept and Its Determinants," Brookings Staff Paper, Brookings Institution.

typically attack directly the problem of raising the supply elasticities of factors other than capital--the role of training, education, provisions of credit facilities, etc. in the typical development program--again raising absorptive capacity.

In Pakistan, however, the Consortium mechanism in which all the non-Bloc aid-givers including the International Bank and its affiliates determine jointly the ceilings up to which each will consider specific project and program proposals, and the rate of project loan agreement commitments against Consortium pledges, furnishes a workable surrogate for a measure of the "true" project gap. Pledges are not determined solely by economic considerations nor are commitments made against the pledges at precisely the time when the projects become "ready," but many of the factors that make this an imperfect measure in part offset each other. For the rough requirements here "the Consortium gap" seems an appropriate order of magnitude measure of the "projects gap."

The Consortium in its initial sessions pledged a total of [illegible] for the second and third year of the Second Plan in January, 1962. 18 February, 1963, thirteen months later, agreements totalling [illegible] finance projects and commodity imports had been signed against these pledges, leaving an uncommitted balance of $413.6, or 43.8 percent. To take this shortfall of 44 percent as the measure of the project gap would be too simple. Whatever the imperfections of this measure, however, it is clear that Pakistan lacked projects in a state of readiness required to implement a substantial portion of the agreed program, the foreign exchange components of which equalled perhaps up to a third of total foreign exchange requirements.

This problem loomed very large throughout 1962 and 1963. That its relative importance declined in 1964 and 1965 is even harder to qualify than the project gap itself. The trend in commitments (loan agreements signed) is suggestive in this regard.

	Aid Committed
1960-61	$221 million
1961-62	$230
1962-63	$481
1963-64	$698

In the fifth year of the Plan, Pakistan's worsening relations with the United States, which lead to the cancellation of the 1965 consortium meeting, and the flare up of fighting between India and Pakistan in September 1965, which led to the suspension of aid to both countries, the aftermath of which is still not sorted out, created a situation in which an attempt to measure the project gap would be all but meaningless. There are many indications, however, that Pakistan is pulling out of its period of serious project gap; the vast amount of homework now completed in connection with the water-logging and salinity problems, transport, power, and the sharply increased estimate of gas reserves are all generating a large investment program. Steel, oil refining, and diversification of industry have also by now had the benefit of large amounts of economic and engineering analysis, laying the basis for much quicker preparation of a larger volume of

That the country is now in a very different project supply situation from that in the first half of the Second Plan period is the commonly accepted view of most people who follow economic developments in the country, both nationals and foreigners. Compare for example the tone of the successive World Bank reports on economic conditions in Pakistan. The contrast between those of May 1961 and of April 1965 is particularly suggestive in this regard.[1] In addition, with the obvious things, and those for which external repercussions and interrelationships could be ignored with relative inpunity, having been largely implemented, the economy has entered a phase in which it is critically important for the planners to focus their attention on quantitative studies with a view to optimizing the returns to further developments.[2] Projects will still be a problem but they will not occupy the center of the stage as in the past.

XII

How has this come about? The machinery developed by Pakistan t[illegible] and select projects for implementation--the Development Working Partie[illegible] the Provincial and Central levels--has been one major factor increasi[illegible] country's ability to generate projects and to close the project gap. Thi[illegible] machinery bridges the gap between the planners and the doers, involv[illegible] planning organizations in the heart of the project problem. All proposa[illegible] by any agency of the Government, including autonomous bodies such as the [illegible] Power Development Authorities and the Pakistan Industrial Corporations, to undertake development expenditures are subject to review by the Working Parties whose permanent members represent the planning and financial agencies at both Central and Provincial levels. The proposals are presented to the Working Parties in a standard format intended to highlight their economic and financial implications.

Review by the Working Parties is intended to place primary emphasis upon the relationship between a proposal and the plan. All provincial projects are reviewed first by a Provincial Working Party then, except for small ones, by the Central Development Working Party. Projects which are Central responsibilities (mainly ports and civil aviation), are considered only by the Central Working Party. After review by the Central Development Working Party is complete, surviving proposals are submitted to the Cabinet for final approval. Projects and programs approved by the Cabinet are then eligible for inclusion in subsequent budgets.

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1. I.B.R.D., Development Programming and Economic Conditions in Pakistan, May 8, 1961; and Economic Development of Pakistan, April 26, 1965.

2. For example, it was probably safe to assume that to build the first fertilizer factories and to meet the most pressing power needs were high priority first uses of the gas reserves in West Pakistan. However, after both fertilizer production and the satisfaction of power requirements have been pushed to the levels that they now have as claimaints on the gas reserves, it is far from clear whether, at the margin, the economic returns to the further use of gas will be maximized by the commitment of additional reserves to power or chemical uses. Rather elaborate econometric studies are clearly more needed now than they were five years ago to plan future exploitation of this resource.

As recently as 1960, projects were still being implemented that had not passed through this process of review and whose relevancy to the program had not been determined. Today the application of the Working Party process is nearly universal. In addition, the quality of the Working Party consideration has improved substantially since the beginning of the Second Plan. The questions asked of individual proposals tend to be more thoughtful, searching, and relevant than typically had been true earlier. There is, of course, still room for improvement. The personnel of the Working Parties is overworked and too often consider projects with too little opportunity for property study and reflection. But the improvement in project review that has been achieved has, in turn, led to an improvement in the seriousness and effectiveness of project preparation. Increasing consideration is given to the interrelations and repercussions between projects and to the differential dynamic effects of the various projects. Sector frames have been, or are being, prepared as the basis for developing the projects required for the implementation of the Third Plan, using assumptions furnished by the Planning Commission for such key parameters as population and labor force growth, GNP targets, and the expected time-path of foreign

There are a number of specific ways in which this process of project review and selection has made positive contributions to the quality of project preparation, in addition to its prime objective of screening out [illegible] projects. As noted, public sector projects[1] including those that are to be financed wholly out of non-tax revenues of the sponsoring agency, are required for consideration in a prescribed format, the Planning Commission Form 1 (PCI). This format calls for a comprehensive summary and discussion of the cost elements, benefits, financing, physical input requirements, and relationships with other projects and the total program. From the planners' point of view the main purpose of the PCI format was to achieve the degree of comparability in presentation necessary for a rational selection among proposals and to furnish data useful in further programming work. But in addition, the discipline of casting their proposals in this form has had unexpected educational effects on the sponsoring agencies. While experience, consultants, and formal training were all necessary elements in building the competence of sponsoring agencies in project preparation the PCI form served as a very useful introduction to this educational process and made the agencies much more willing to accept the other technical assistance components in the project area (training and consultants).[2]

As experience with these procedures accumulated the planners increasingly played an active technical assistance role in project preparation. To the extent that the time available to the relatively small staffs of the planning agencies permitted, they worked directly with sponsoring agencies helping them to understand what was involved in improving their project proposals.

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1. Including those of what in Pakistan is called the "semi-public sector" - autonomous, commercial-type operations financed by government.

2. Pakistan has been as willing to accept foreign expertise in the development of its program as any country, and more than most. While this had not been an unmixed blessing and the quality and usefulness of this expertise has varied from the superb to the atrocious, the high input of foreign technical resources has certainly been a major factor in raising the short-run absorptive capacity of the economy. (But to what degree has it been a soft option delaying the development of Pakistani competence as some would hold? This is a question well worth a

While the capacity to furnish this direct help was quite limited it was of critical importance in the case of a number of major projects and programs, especially transport projects and the Works Program. More persuasive and lasting, however, was the initiative and support of the planners in the establishment of planning cells within the individual agencies and of planning groups for individual sectors.

Perhaps the best example of a successful planning group (success defined in terms of identifiable contributions to the quality of project preparation) is the Transport Planning Group in East Pakistan.[1] This group, convened by the Planning and Development Department, but co-sponsored, in fact if not formally, by the Provincial Road, Water and Rail Transport Department, is composed of members seconded from both the various levels of transport planning and the various executing and operating agencies in the transport field. "Selection was made in this manner to facilitate communication between the various planning levels, to help train personnel in analytical planning for all the various planning cells, and in the process to give each group an understanding of the interrelationedness of the activities and the economic and technical problems of planning at each level. The technical personnel from the operating agencies became more aware of the economic problems of development while the economists from the Planning Department broadened their understanding of the technical problems."[2] While not a very new or very subtle concept, the fact that many planning cells and sector planning groups have been concurrently established and related in this way has proved to be extraordinarily useful. Initially the attention of the group focused on preparing an inter-model study of existing and potential transport needs. This continues to be its main focus[3] but increasingly the group has found it possible to provide direct assistance in the preparation of Third Plan projects. Perhaps one of the operationally most useful lessons learned by the group so far is that what is needed from it is not an inter-model study but the creation of a machinery to continuously assess the evolving transport needs and the changing relative suitability of different modes to meet those needs.

While I do not claim that they fully explain the progress Pakistan has made on the project front, I do think that it is clear that the planners' direct involvement in the process, the Development Working Party machinery, and the planning groups and cells have made a major contribution.[4]

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1. Cf. Brandieth, Harold. The Transport Planning Group, Oct. 15, 1965, Government of East Pakistan (mimeo.).

2. Ibid., pp. 1, 2.

3. Cf. Transport Planning Group, Arterial Freight Movements in East Pakistan, Nov. 15, 1965.

4. So as not to overstate progress it must be stated that not all agencies and sectors have their cells and groups as yet, and not all those that do exist are as competently staffed as the Transport Planning Group. Progress is being made but appropriate personnel is in short supply.

XIII

To recapitulate, I have argued in the above discussion that the problem of generating an adequate supply of projects is a central concern of the planning process, and not merely peripheral to it or part of the background, and the relative importance of this problem is likely to be greater in the early stages of the development process than it will be later on. I have tried to show that an efficient attack on the problem is hampered by the failure to pursue the search for possible projects with sufficient vigor, by an underestimation of the effort required to find and prepare projects for consideration, and by a failure to development a continuing dialogue between various agencies with a view to finding projects that cut across lines of interest and administrative responsibility. Finally, the whole problem is seriously complicated by a lack of clarity on the nature of the investment decision. The economic, technical, and design aspects of the project preparation and selection process must be kept distinct. Only in this way can the proper sequence of actions be followed, permitting scarce economic and engineering resources to be economized, and the quality of the resulting decisions raised. Uncertainty must be faced up to and risks taken. The planners have a direct role to play in relation to all of these aspects of the problem. They are not merely interested bystanders.

While it has been emphasized throughout that a proper concern with projects must not replace the planners essential concern for macro-analysis and general programming, it seems best to end on a cautionary note in this regard. There are indications that the tide of fashion is running towards planning from the bottom up, or all projects and no models. That approach it seems to me has as many pitfalls, if not more, than present practices. A portfolio of good bankable projects could conceivably so distort priorities as to add-up to a program that is something considerably less desirable than second best.

ERRATA

The Planners and the Projects

by

William C. Hollinger

Page 1 - line 5, second paragraph: delete "(increase)".

" 2 - line 8, first paragraph: "the project problem" instead of "the project's problem".

" 4 - line 12, second paragraph: "structural" instead of "stru-tural".

" 4 - line 1, third paragraph: "greater" instead of "great".

" 5 - ninth sentence, fourth paragraph: insert "in" after the comma.

" 6 - line 13 from top of page: "specifies" instead of "specified".

" 9 - line 11, second paragraph: "(benefit/cost>1)" instead of"(benefit/cost)".

" 10 - line 8, second paragraph: "calculations" instead of "educations".

" 11 - line 4, first paragraph under II: "prepared" instead of "prepated".

" 11 - last line, same paragraph: "section VII" instead of "section III".

" 12 - second line from bottom of page: "indivipibilities" instead of "inadvisabilities".

" 13 - line two, paragraph four: "quantify" instead of "qualify".

" 15 - line nine, first paragraph: "proper" instead of "property".

" 16 - line three from top of page: "pervasive" instead of "persuasive".

" 16 - footnote 1: "Brandreth" instead of "Brandieth".