INTRODUCTION

The development project is a special kind of investment. The term connotes purposefulness, some minimum size, a specific location, the introduction of something qualitatively new, and the expectation that a sequence of further development moves will be set in motion. If they are in the public sector, development projects may additionally be defined as those units or aggregates of public investment that, however small, still evoke direct involvement by high, usually the highest, political authorities. Development projects, then, are privileged particles of the development process, and the feeling that their behavior warrants watching at close range led to the present inquiry.

I chose to study a number of projects financed by the International Bank for Reconstruction and Development (World Bank) whose twenty-year experience in appraising, financing, and following up development projects constitutes the most ample, varied, and detailed source of information and documentation in this area. Considering my particular purpose, which was to learn something about project behavior in general, exclusive reliance on World Bank projects could of course be criticized on the grounds that the resulting sample was likely to be highly biased because the Bank insists on very high standards and picks only the best ventures available. Fortunately (at least for my research!) I found, upon looking more closely, that not one of the projects I had

selected had been free from serious problems. It quickly became apparent to me that all projects are problem-ridden; the only valid distinction appears to be between those that are more or less successful in overcoming their troubles and those that are not.

With the help of the staff of the World Bank, I put together a small sample of projects on the basis of two criteria: as a group, they had to be well diversified with respect to economic sector and geographical area, and each project had to have an extended history, including if at all possible several years of operation. The latter condition limited the sample in practice to projects to which the Bank had given support at an early stage of its own operations. This should be borne in mind in connection with any critical points that will be raised here about project planning and implementation.

The study of the project histories, including frequently the portions prior or subsequent to Bank involvement, proceeded in 1964–65, first at Bank headquarters in Washington and then mainly in the field where I spent from two to five weeks per project. Eleven projects were studied and visited, in the order shown in Table 1.

In spite of this intensive concern with "cases," the study does not contain histories of the individual projects nor detailed comparisons of cost and benefit estimates with results. Rather, I have woven significant bits of the project histories into observations on project behavior that I have attempted to present in systematic form. It will, I hope, be apparent that almost all of these observations owe their very existence to a year of looking at projects and talking about them with their originators, builders, administrators, financiers, and customers. Immersion in the particular proved, as usual, essential for the catching of anything general, with the immersion-catch ratio varying of course considerably from one project to another. For a number of them, a reasonably full, if dispersed, profile will in fact have been drawn by the end of the book.

What is the nature of the catch? For my previous book, *Journeys Toward Progress,* I had studied simultaneously the histories

Table 1. *World Bank Projects Studied*

Country & Sector	*Location or Purpose*	*Agency in Charge*
EL SALVADOR Electric power	Hydrostation on Rio Lempa	Comisión Ejecutiva Hidroeléctrica del Rio Lempa
ECUADOR Highways	Guayas Province	Comité Ejecutivo de Vialidad de la Provincia del Guayas
PERU Irrigation	San Lorenzo Project in northern Peru	Irrigación y Colonización "San Lorenzo"
URUGUAY Livestock	Countrywide pasture improvement	Comisión Honoraria del Plan Agropecuario
INDIA Multipurpose river valley development	Damodar Valley in states of Bihar and West Bengal	Damodar Valley Corporation
PAKISTAN Industry	Pulp and paper mill on Karnaphuli River in East Pakistan	Pakistan Industrial Development Corporation, later Dawood Group
THAILAND Irrigation	Chao Phya River (Central Plain)	Royal Irrigation Department
ITALY Irrigation	Various irrigation projects in southern Italy	Cassa per il Mezzogiorno
UGANDA Electric power	Transmission and distribution from Owen Falls Station	Uganda Electricity Board
ETHIOPIA Telecommunications	Countrywide	Imperial Board for Telecommunications of Ethiopia
NIGERIA Railways	Modernization and 300-mile Bornu extension	Nigerian Railway Corporation

of three different problems—inflation in Chile, land tenure in Colombia, and regional imbalance in Brazil—in order to identify some characteristic features of the policymaking and problem-solving process. This time I decided to observe in rapid succession the course of development projects in *diverse* economic sectors—irrigation, electric power, transportation, basic industry, etc.—with the thought that in this fashion significant similarities and differences in project experience would stand out sharply and

would suggest some hypotheses on comparative project behavior. My purpose was not to establish for all projects general propositions that would almost certainly be empty, but to inquire whether significantly different experiences with projects might be traced to what, for want of a better term, may be called their "structural characteristics." These range from economic and technological attributes (for example, the extent to which it is possible to substitute labor for capital or quantity for quality in construction) to organizational or administrative properties (for example, the organization that builds the project may also be in charge of operating it, as is typically the case in railways, but not in highways which are "operated" by independent truck owners). As a result of such characteristics some projects make greater implicit demands on human effort and on the sociopolitical environment than others. For example, some projects require technological innovation while others could not hope to succeed without lessening, at least within their own confines, racial, religious, or other hostilities among various sections of the community. To view project behavior as rooted in such structural characteristics and in the interaction between those characteristics and society at large should make a two-fold contribution to our understanding.

First and principally, it should go far in explaining and anticipating successes and failures of projects, systematic veerings from pre-assigned paths, propensities toward specific difficulties, as well as opportunities for special payoffs.

Secondly and more ambitiously, this analysis of likely behavior of projects possessed of different structural characteristics inevitably leads one to viewing the development experience of a country as importantly influenced by the kind of projects it finds—or places—in its path. Such a view stresses the importance for development of what a country does and of what it *becomes* as a result of what it *does,* and thereby contests the primacy of what it *is,* that is, of its geography- and history-determined endowment with natural resources, values, institutions, social and political structure, etc.

This view is appealing because it affords hope to a country with the "wrong" endowment provided only it finds the "right" projects, and also because it may explain the substantial differences in development performance for not too differently endowed countries. Along these lines, it can be shown that some projects and technologies have a special vocation for inducing certain types of learning, attitude change, and institutional reform (and not others), that different projects—because of their different structural characteristics—are, as it were, *specialized* with respect to the kind of changes they will work. An inquiry into this nexus offers perhaps a way out of the inconclusive debate about values versus institutions as prime movers in social change and modernization.

But I hasten to say that only very occasionally—see in particular pages 118–28—have I ventured onto such lofty ground. On the whole, my energies were absorbed by the task of describing, with the help of my project sample, the principal structural characteristics of which I had become aware. While I was pleased to be able to arrange them neatly under the two headings of uncertainties (Chapter 2) and latitudes or disciplines (Chapter 3), I became at times concerned over their number and variety—in other words, over the very success of my search. If every one of these characteristics can claim to inflect project behavior in some way, are we then not back at that "chaos of causes" about which Herder complained after he had improved upon Montesquieu's stress on climate as the principal determinant of differences among human societies, by asking that account be also taken of "the food and drink which man takes in, the way he lives, the work he performs . . . and a multitude of other circumstances"?[1]

Nevertheless, at the risk of rendering the universe less, rather than more, intelligible, my first duty clearly was to map out as fully as possible the territory I had chosen as my field of investigation.

1. *Ideen zur Philosophie der Geschichte der Menschheit,* Pt. 2, Bk. 7, in *Herder's Werke* (Berlin: Hempel, 1879), Vol. 10, pp. 51, 62.

Considering the smallness of the sample from which I have extracted my "system," it seems likely that additional important connections between the technical or economic characteristics of projects and their performance in different sociopolitical environments remain to be recognized. Insofar as the categories here proposed are concerned, their large number should make for less "chaos" than might be feared: they are meant for selective use, rather than for mechanical application all the way through to any and every project. For this reason and also to avoid the illusion of completeness, I have resisted the temptation to append an elaborate checklist of criteria.

From what has been said, it is clear that Chapters 2 and 3 on uncertainties and latitudes are central to my argument. They are followed by attempts to develop the bearing of the resulting notions on project design (Chapter 4) and project appraisal (Chapter 5).

This leaves Chapter 1 to be accounted for. Essentially it is an attempt to answer a question that is preliminary and fundamental to the rest of the inquiry: if it is true that progressive change can assert itself in a country simply as a result of what that country does and in spite of many things it is, what except accidental stumbling makes countries engage upon such doings in the first place? This sort of inquiry is of course a few notches more speculative than the rest of the book. Meant originally as a prologue, it should be read as such.

Having set out the principal focus of the present study, I should perhaps caution the reader that some of the issues he may expect to be treated in a book on development projects receive scant attention here. In the first place, very little will be said about cost-benefit analysis, shadow prices, the rate of interest appropriate for discounting, and similar topics; only in the last chapter is some space devoted to them, in connection with a discussion of so-called indirect effects or side-effects. My silence on these matters does not mean that I advocate shelving, say, the discounted cash flow technique in favor of the concepts I have derived from the observation of the behavior and misbehavior of past projects. I

do expect these concepts to have some uses in project evaluation, but almost entirely as additional elements of judgment; in the few cases in which they involve a qualification or critique of traditional appraisal techniques, this is expressly noted.

Secondly, and as already mentioned, I have been less interested in achieving an overall appraisal of the individual World Bank–financed projects I visited than in drawing on specific segments and sequences of the project histories for a more general understanding of project behavior. Hence, no special effort has been made to add up the costs and benefits of the individual projects and to rank them along a scale that would measure their overall financial or economic results. While such a comprehensive audit or reappraisal is not impossible, and while it would cater to our consuming curiosity about rank and rankings, it is not likely to be particularly useful in refining one's judgment about new projects. A new project, besides containing entirely new elements, is always a mosaic of situations characteristic of various past projects. Decomposition of project experience into various elements will therefore provide more guidance than a synthetic judgment on past projects—each of which represents a combination of elements far more unique than the component elements themselves.

More generally, the commissions and omissions of this book imply a judgment that there is far more to project evaluation than any ranking on a one-dimensional scale can convey. That this is so is of course well recognized. But the generally accepted notion appears to be that decision making on projects involves two, and only two, wholly distinct activities: ascertaining the rate of return and, then, applying feel, instinct, "seat-of-the-pants" judgment, and the like. In actual fact, these latter categories have been left to control a very large portion of the decision-making process. Rather than as a criticism of cost-benefit analysis and the rate of return, this book should be regarded as an attempt to reclaim at least part of this vast domain of intuitive discretion for the usual processes of the *raison raisonnante*.