Improving Development Program Performance

Guidelines for Managers

Studies in Development Management

Derick W. Brinkerhoff

Improving Development Program Performance

Studies in Development Management

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Series Foreword

Webster defines management as "the judicious use of means to accomplish an end." Applying management concepts to economic and social development programs in the Third World is a complex and multifaceted task because the manager must deal with elusive goals, changing environments, and uncertain means, and because optimal directions for organizing donor programs to assist the management of Third World programs have been ambiguous. The comparatively new field of economic and social development management is challenged to create more useful intellectual resources for both developing country management and donor cooperators.

Specialists in the field—managers, analysts, consultants, educators, and trainers—have found that to trace the academic base of development management is to draw upon a broad and interdisciplinary framework. Members of the development fraternity continually call attention to the diversity of the subject areas that are critical to the judicious management of social and economic change.

The need to develop a better understanding of development program management, in both theory and practice, has prompted the preparation of the NASPAA/DPMC/IDMC series. Dennis Rondinelli's book, analyzing the development management work that has been funded over the past fifteen years by the U.S. Agency for International Development (USAID), examines some of the major research contributions to the development management field. The volumes by Louise White, Jerald Hage and Kurt Finsterbush, and John Kerrigan and Jeff Luke synthesize, probe, and order the academic bases for practice aimed at strengthening development management. Their subjects—development program management, organizational change strategies for more effective program management, and management training strategies for promoting improved program management—are purposely interrelated. In the present book, the fifth in the series, Brinkerhoff focuses on development

program management from the viewpoint of the developing country manager and provides practical guidance that encapsulates current thinking about the best ways to improve and sustain program performance.

These books order and organize complex subjects. They thereby invite collateral analytic work by specialists in related concentrations and with related perspectives. In particular, we seek stronger links with work by Third World specialists, for, although the authors have sought a Third World perspective, they have relied heavily on literature available in the United States.

The impetus and support for the research presented in this series came from the Performance Management Project (No. 937-5317) of the Office of Rural and Institutional Development of USAID's Bureau for Science and Technology. A major purpose of the first four books of the series, from the funder's point of view, was to make more explicit the links between the assimilated knowledge and skills of the development management practitioner and the literature base that supports development practice.

This current volume again brings attention to the importance of the developing country's program for both the Third World manager pursuing social and economic change and for the donor official seeking to support such change. The purpose of the book is to provide these colleagues with insights from seven years of Performance Management Project activities in support of program management in developing countries. The task required discerning from the project's diverse activities in scores of countries and from related work from outside the project, a framework clear in concept and a book rich in content. The fact that Derick Brinkerhoff has succeeded so well with this challenge, and has produced a book that promises great usefulness, attests to the dedication, wisdom, and skill of the author, to his collaboration with project personnel, and to the significant contributions the latter have made at various stages of this enterprise. We are grateful to him and to the authors of the earlier books in this series for their considerable investment in time and thought that has culminated in these results.

The organizations that have implemented the Performance Management Project—the National Association of Schools of Public Affairs and Administration, the Development Program Management Center and its cooperator, the International Development Management Center of the University of Maryland—have engaged, with their developing country counterparts, in a wide variety of practical and analytic activities in over forty countries to support program management. The NASPAA/DPMC/IDMC Studies in Development Management series reflects interaction between the individual authors and the experienced practitioners associated with these organizations. While the studies are the authors' own, they also reflect, to varying degrees, the views and experience of the Performance Management Project practitioners. This reflection is particularly true for this current volume, which incorporates contributions from those involved in planning or editorial committees, as well

as from individual reviewers. I would like to express my appreciation to an extraordinary group of people who have participated in the Performance Management Project and who have contributed to this series.

We particularly appreciate the understanding, leadership, and support that the books in this series have received from Kenneth Kornher, chief of the USAID division responsible for institutional development and management research. Eric Chetwynd, director of the Office of Rural and Institutional Development, his predecessors, and other officials of the Bureau for Science and Technology have provided valuable agency support to this project's research activities.

Jeanne Foote North, Project Officer
The Performance Management Project
Office of Rural and Institutional Development
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Writing a book such as this one is both an individual and a collective endeavor, involving ongoing interaction between author and manuscript reviewers. I would like to thank all the members of the review committee for their helpful comments and suggestions. Several members, however, deserve special mention for the time, effort, and attention they generously accorded me over the two and a half years of writing this book. Marcus Ingle was particularly supportive in serving as a sounding board on in-process chapter drafts and in making time for discussions that led me to clarify and better organize my thoughts. I thank Wendell Schaeffer for his extensive and detailed reactions and suggestions chapter by chapter during the writing process. Pat Isman's comments, especially on the early chapters, and her encouragement throughout were helpful. Jeanne North also provided in-depth comments, and her gentle oversight and sincere interest made for the best kind of working relationship. Finally, I would like to thank Ken Kornher for his constant reminders to strive for relevance and clarity and his confidence that the final product would ultimately reflect the intended purpose of the volume. Any failings, whether sins of omission or commission, are the sole responsibility of the author.

Derick W. Brinkerhoff

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Development and Management

For the poor countries of the world, the challenges of achieving development results in the last decade of the twentieth century are in many ways more daunting than those of the early days of nation building. A brief sampling of these challenges shows why: young and rapidly growing populations, increasing demands from citizens for basic goods and services, resource shortfalls, rapid technological change, high unemployment, heavy debt burdens, growing competition in international markets, worsening environmental pollution, and pressures for democratic expression. Some developing countries have done a better job of achieving development over the years than others. Progress has been made, some by design and some by trial and error or good luck. The Asian "tigers" of the Pacific Rim, for example, have moved into the ranks of the middle-income nations. Large numbers of people in Asia, Latin America, and the Near East are better off than they were twenty years ago. Other nations, such as those in much of sub-Saharan Africa, have stagnated or regressed, leaving their citizens worse off than in the 1950s and 1960s.

Managing the tasks of socioeconomic transformation in the face of these challenges is a specific challenge in itself. Despite the despair and handwringing over the difficulties of management in the developing world, the overall picture is far from negative. Paul (1982) and others have documented programs and projects that have succeeded. In the development management field there are some approaches, techniques, and tools that have demonstrated their effectiveness in generating improvements in performance.[1] The demands of the future, however, call for further breakthroughs in both thinking and doing, building on the best of what has been thought and done so far, to develop new responses for the years to come.

There is no single best way to do development management.[2] Different situations in different sectors call for differing ways of managing and organizing. In the agriculture sector, for example, research and extension pose particular

problems associated with developing and diffusing technical packages to geographically dispersed farmers via a network of similarly dispersed extension workers. One scholar/practitioner referred to the administrative side of extension as "the management of invisible men" (Chambers 1974). Health sector managers face another set of problems: community participation in primary health care programs, logistical problems of drug and equipment supply, and the difficulties arising from the hierarchical professional structure of the health field that accords the most status and power to doctors (see Parlato and Favin 1982). Rural public works managers confront problems in combining men and equipment to construct and/or maintain roads, bridges, dams, etc. (see Thomas and Hook 1977).

FOCUS OF THE BOOK

This book focuses on program management. Much of the development management field has concentrated upon project management, whose techniques fit with the output-production orientation that characterizes the project mode of operation. Project management, however, emphasizes the time-bounded implementation perspective of the resource provider, that is, the donor agency (Rondinelli 1987). The need to generate sustainable flows of ongoing benefits from development investment has directed attention away from projects toward programs, which are integrated into national organizations, have objectives and activities that reflect national priorities, and are implemented over the long term. This focus on programs has, in turn, led to a new understanding of projects. Rather than being treated as discrete investment "implants," projects are increasingly seen as sets of activities that, although designed to accomplish specific goals with a given amount of resources in a predetermined time frame, serve as building blocks for ongoing programs and performance capacity.

The fundamental purpose of the book is to draw systematic lessons for improving the sustainability of development program performance. These lessons are interpreted so as to be useful for actual managers in developing countries. This perspective orients the discussion toward what managers need to do to manage better and how donor support can fit into that endeavor, rather than vice versa. The book looks at the lessons of both success and failure, but its orientation is more toward what works rather than what does not. It draws upon USAID-funded efforts to learn about and promote improved organizational performance, complemented by those of other donor agencies.

The underlying perspective of the book is that management subsumes a broad set of activities directed at achieving ends in complex settings. This complexity results from a myriad of social, technical, and physical phenomena that intertwine and interact in a wide variety of ways. Because they combine

uniquely in any given management situation, what individual managers confront is almost endlessly different. Therefore, the practice of management is a craft, falling somewhere between science and art. This means that the book does not and cannot offer surefire recipes for performance improvement, since management frequently calls for that little something extra, that something creative and idiosyncratic which leads to success. In any endeavor involving people, there will always be inherent elements of the unpredictable or the unknown. Social science seeks to reduce or order those elements, but it cannot eliminate them.

Another underlying premise is that development program managers are not simply administrative technicians carrying out plans designed elsewhere. Depending upon the nature of their programs, development managers are called upon to fulfill many roles. Often they must mobilize resources from various sources: public, private, local, national, and international. They are sometimes called upon to stimulate community participation, while at the same time negotiating support for their programs from political elites. Frequently they must elicit cooperation from other organizations in both the public and private sectors over which they have little or no supervisory authority.

What the book offers is an organized discussion of development program management and guidelines that encapsulate current thinking about the best ways to improve and sustain program performance. The intent is to augment program managers' knowledge and skills in dealing with key factors in development management. In particular, development program managers need to become organizational entrepreneurs, paying attention to a wide array of factors beyond the internal workings of their own units and the actions of their immediate subordinates.

ORGANIZATION OF THE BOOK

The book is divided into nine chapters. This first chapter provides an overview. Chapter 2 lays out the "roadmap" used to guide the reader through program management's conceptual territory, directing the manager's gaze out toward the environment that surrounds the program, in toward key elements of the manager's program, and ahead toward the results to be achieved. Chapter 3 examines in depth the program environment, targeting specifically the importance of its policy dimensions, and offers guidelines for dealing with key environmental factors. Chapter 4 discusses program design and planning and how to address sustainability issues in the early stage of a program's life cycle. Chapter 5 concentrates on choosing how to structure programs given their interorganizational configuration. Organizing programs involves both managerial design and "market" allocation of functions among the various entities participating in implementation. Management systems and processes, including

guidance, reporting, and financial systems, are discussed in Chapter 6. Chapter 7 looks at how to make the most effective use of human resources, focusing on incentives and motivation, leadership, and training. Chapter 8 discusses the use of outside interventions designed to stimulate and/or improve performance, and Chapter 9 reviews the roadmap in light of the intended "destination," that is, achieving and maintaining responsive, adaptive performance. Three dimensions of performance are highlighted in Chapter 9: task accomplishment, capacity building, and sustainability.

As mentioned in the series foreword, the primary experience base for the lessons learned and the guidance provided on program management improvement emerges from the research and consulting activities conducted under USAID's Performance Management Project, complemented by other USAID-sponsored research. The secondary base constitutes the experience of other donors, principally the World Bank. These experiences are incorporated into the book in two ways: first, they are woven into the flow of the book's discussion of the various dimensions of development program management, and, second, summaries of case examples are highlighted in boxes at appropriate points in the text to emphasize and illustrate particular issues. The wider development management literature is also drawn upon for supplementary and supporting analyses and evidence.

INTENDED AUDIENCE

Before delving into a detailed discussion of program management, a word on different ways of approaching the book's contents is in order. The primary intended audience is the practitioner: program managers in developing countries and/or in international assistance agencies who are interested in improving the performance of the organizations they work in and with. The secondary audience is the researcher: the social scientist and/or academic who specializes in development management. For practitioners, the book focuses on the action implications of what has been learned about development management. Lessons and guidance are presented in a separate section at the close of each chapter. Program managers are encouraged to skip around in the book to the chapters and sections that deal with their particular interests and concerns. For researchers, the book seeks to contribute to the advancement of the development management field and to extend the state of the art on both its practical and conceptual dimensions. Systematic treatments of project management abound. However, those dealing with program management are rare. References and notes are provided that acknowledge sources, support and amplify the discussion, and offer the researcher additional citations. Practitioners, however, can safely ignore these.

NOTES

1. The term "development administration" is the traditional one used to label the subdiscipline of public administration applied to developing countries. This book calls this subset of the discipline "development management." The term "management" is intended to emphasize the importance of strategy and proactive style, as opposed to the more routine tasks and tools of administration. Development management thinking abolishes the dichotomy of politics and administration that characterizes traditional public administration. Further, development management is not restricted to the public sector; development managers can be business people, staff of private voluntary organizations or local associations, or community members, as well as public officials.

The first book in this series, Rondinelli (1987), offers an in-depth history and review of development management and how it has been dealt with in U.S. foreign policy. Other overviews are contained in the opening chapters of Bryant and White (1982) and in Esman (1988). See also the bibliography on development management compiled by Murrell and Duffield (1985).

2. Another book in this series elaborates on this point. Hage and Finsterbusch (1987) discuss the interactions among the tasks an organization is trying to accomplish, the nature of the organization's environment, and the different structural options that affect the choice of how to manage. This contingency approach is used in this book as well, in the discussion of program management.

2

Programs and Program Management

As with any complex area of investigation and action, there are many ways of looking at management and organizational issues. Making sense out of what we see, however, requires selecting from among all the possible ways of looking at some subset that allows us to simplify and order the "raw data" of the real world. Trying to look at everything would simply be overwhelming. Although managers frequently view with impatience the efforts of theorists and academics to build conceptual models, those same managers operate with mental models of how the world works, developed informally on the basis of years of experience and practice.[1] The difference between theorists and practitioners in model building is not between doing it or not doing it, but between doing it explicitly and systematically or doing it implicitly and idiosyncratically. Because practitioners—politicians, ministers, division chiefs, program managers, project directors—make choices based on their models that produce decisions, consume resources, and lead to outcomes with real implications for real people, conceptual models are important and relevant. Ideas do, in fact, have an influence on the real world.

This chapter elaborates a simple, but not simplistic, conceptual framework for development program management to organize the discussion and serve as a "roadmap" for the guidance and lessons presented. In the pages that follow, the framework is overviewed and summarized. Later chapters concentrate on components of the model in more depth. What guides the model used in the book is the focus on program management. So, before proceeding to the overview, some additional discussion of program management is in order.

PROGRAM MANAGEMENT

As noted in Chapter 1, development management has long been associated with managing donor-funded projects. Experience with projects, however, began to

show that they were something of a mixed blessing for countries. While individual projects could effectively achieve specific targets if well designed and managed, the cumulative effect of promoting development in a project mode has led to some troubling side effects, such as duplication of effort, loss of skilled staff from line agencies of the public administration, proliferation of autonomous and semiautonomous organizational units loosely attached to public sector entities, multiplication of administrative and financial procedures and systems, aggravation of ballooning recurrent cost burdens due to the cumulative impact of covering the costs of project-initiated operations once external funding ends, and inability to continue providing goods and services following project completion (Morgan 1983, Rondinelli 1983b, Gray and Martens 1983, Morss 1984, Honadle and Klauss 1979, Ingle 1979).

In response to these deleterious impacts, international donor agencies have recently refocused their attention on integrating assistance into national programs, which represents a convergence with developing country policymakers whose interest in programs remained constant.[2] The developing countries' perspective on development is long-term and national in scope, and programs are an integral part of this view. Countries are finding a renewed concern among donors for how to manage programs effectively, as well as projects, and for how to increase the capacity of developing country institutions to carry out management tasks.

Programs: Defining Characteristics

Before continuing, it is important to answer the question, What are programs? Development programs are long-term, multiactivity endeavors implemented by networks of country institutions in multiple locations whose production and/or service delivery objectives and impact goals derive from indigenous policy choices. Following White (1987: 8-12), development programs as treated in this book can be described as having five major characteristics.[3]

1. *Programs are linked to existing public and/or private organizations in the country.* Programs are carried out within ongoing agencies as integral components of their operational or delegated responsibilities. National personnel manage and implement programs. This characteristic has critical implications for program management. Because programs function in ongoing organizations, they not only benefit from the strengths of the organizations but also are vulnerable to their weaknesses. To the extent that an organization lacks administrative capacity and sufficient operating resources, the programs it is responsible for will suffer. Pyle (1982) singled out organizational and bureaucratic factors as key constraints in moving from projects to programs, based on an analysis of experience in the health sector in India.

For example, if, as is the case in many developing countries, public sector employees receive low salaries, rely on superiors in the hierarchy to make decisions, take little personal initiative, and see little connection between job per-

formance and advancement, then a program manager who must rely on such staff faces daunting personnel problems (see Leonard 1977, Heginbotham 1975, Price 1975, or Esman 1972). Similarly, the cumbersome, slow, and highly centralized financial systems that many developing country agencies possess are a well-recognized impediment to program operations (see, for example, Holzer and Chandler 1981). It is these types of administrative weaknesses that led to establishing separate project implementation units as a remedy. Autonomous project units are usually no more than a temporary solution to lack of management capacity (Honadle and VanSant 1985).

2. *Programs continue over time.* As opposed to projects, which by definition have finite and often relatively short life spans, programs extend over long periods of time. Though they are modified as circumstances change and progress is achieved, programs are often repetitive sets of activities that produce goods and services on a regular and ongoing basis.

A major implication of this characteristic for program management is that program design, while important, consumes only a small amount of managerial resources relative to implementation. Rather, the more frequently encountered managerial task is improving the program over time during operations. This task calls for collecting and analyzing information on results achieved and using that information to regroup or rearrange the program's sets of activities or reevaluate its purpose and objectives in response to the feedback.[4] Thus, the organization's and its managers' capacities to anticipate and adapt to change are key.

Another implication is that programs require a steady stream of resources and inputs to continue functioning. Whereas project managers are mainly concerned with initial investments and capital expenditures, program managers must seek means to cover recurrent costs over time. Thus, program managers look at institutional sustainability from a different perspective than that of project managers. For example, a program's budget is part of the financial system of its host organization(s) and is subject to competition for funds as part of the annual budget process. Project budgets, however, are frequently segregated and protected in special accounts, with allocations set for multiple years. Program managers are vulnerable to cutbacks, shortfalls, and fluctuations in the implementing organizations' budgets and must be concerned with whether the organizations can sustain themselves in the long run. Project managers' concerns relate more to accomplishing specific objectives in the short run.

3. *Programs integrate a wide variety of production and service delivery activities.* Development programs rarely carry out a single set of tasks or activities; instead they combine clusters of related activities that form service production and delivery systems or networks. These systems often cut across several different organizational units or across separate agencies. Hjern and Porter (1981) argue that this feature is the most important defining characteristic of public sector policy implementation across governmental levels and that multisector project or program management can be completely understood only by using a multiorganizational unit of analysis (see also Gage and Mandell 1990).

For example, an agricultural production program typically assembles activities drawn from some combination of the following: technology, research and development, marketing, transport, extension and dissemination, credit, cooperative development, irrigation, agricultural engineering, regional planning, and community mobilization (Kulp 1977: 14-16). Each of these is usually the operational responsibility of a different organization: ministry of agriculture, agriculture universities, marketing boards, extension services, local cooperatives, and so on. Program managers, then, must perform a series of balancing acts among complementary and/or conflicting sets of objectives and tasks and among multiple collaborating entities, many of which are competing for a piece of the same pool of resources. Authority and power to implement programs are diffused among these different actors, and program managers must rely on influence and negotiation rather than control to obtain what is required to achieve program objectives. Because the various actors involved in implementation are autonomous and program operating funds are divided among them, the kind of discretionary money that project managers often enjoy is relatively unavailable to program managers.

4. *Programs operate in multiple settings.* As networks of service production and delivery, programs extend beyond a single site or location to many sites, reaching the regional or even the national level. To continue the agricultural production example, such a program would normally work in one or more regions where the same major crops predominate; these regions subdivide into particular zones where the same farming systems prevail and/or similar climates occur; and these zones break down into different farming communities, that is, areas served by a single crop collection point (Kulp 1977: 20). Each of these subdivisions requires differentiation and adaptation of the program's technical package to effectively increase production and yields.

The multiple settings characteristic holds several key implications for program management. First, managers must be able to adapt activities and technologies to different settings, establishing information collection and analysis mechanisms and procedures for introducing flexibility while at the same time maintaining program coherence. Second, because the tasks are varied and performed in many settings, the coordination role in program management is very important. In large programs, much of the management task involves providing services produced by one program unit to another and coordinating the activities of two or more units, both of whose inputs are needed to serve beneficiaries. Functional interdependencies are pervasive and complex. Third, due to the number and scope of these internal linkages, not to mention the external ones, managers are faced with a variety of choices about how to organize and run their programs. For example, the agricultural production program management team could decide to delegate certain operations to private agribusinesses via contracts, or they could work with regional offices of various ministries. And/or they could promote local cooperatives and community-based farmers' organizations for transport and marketing.

5. *Programs are the product of policy choices by various groups in the*

country at national, regional, and/or local levels. Programs represent the operational manifestations of a country's policy choices; as such they derive their content and identity from political bargaining, competition, and negotiation among both formal and informal entities from the national level on down. For example, local politicians can lobby for programs to be active in their districts to satisfy their constituents, or ambitious bureaucrats at the central offices of a ministry can try to establish a national program to advance their agency interests and careers. The outcomes of such political dynamics shape programs' missions, intervention areas, scope, and budgets.

Projects can share this characteristic, but they are much more easily separable from bureaucratic and political dynamics. Donors can frequently buffer projects in a way that is not possible for programs. This means that program managers must be more attuned to the policy environment and the need to build commitment and coalitions around program content than project managers. Policy changes can have important impacts on the program's economic and political environment (see Lamb 1987 and Cohen, Grindle, and Walker 1985).

Links Between Programs and Projects

A focus on programs does not mean that projects are ignored. Development projects and programs are intertwined in several important ways. First, the activities that make up the content of a program can be treated as a set of related, concurrent or serial projects; thus, projects can be thought of as one of the building blocks of programs. The other building block is ongoing operations. These are routine, repetitive activities that serve to maintain service delivery and production once the program is under way. Examples are budgeting and accounting, hiring and training personnel, maintaining equipment and supply inventory, operating the motor pool, and so on.

Second, projects and programs are conceptually linked in that both can be conceived of as tests of hypotheses. Project and program designs are built on assumptions that desired development results will emerge from combining certain inputs and activities to produce certain outputs.[5] While it is often supposed that projects are experimental and programs are not, in truth both exhibit the features of experimental undertakings, where the relationships between cause and effect are subject to varying degrees of uncertainty and need to be tested.[6] This means that the feedback and adaptation components of project managers' jobs are equally needed for program managers as well.

Third, both development projects and programs usually blend indigenous and externally provided resources and assistance to achieve their goals. International donors provide support to both projects and programs, and the interaction of donor procedures with national ones has a key impact on programs and projects, though to differing degrees.

Fourth, projects and programs share a common set of management functions or roles that need to be fulfilled to achieve successful development results.

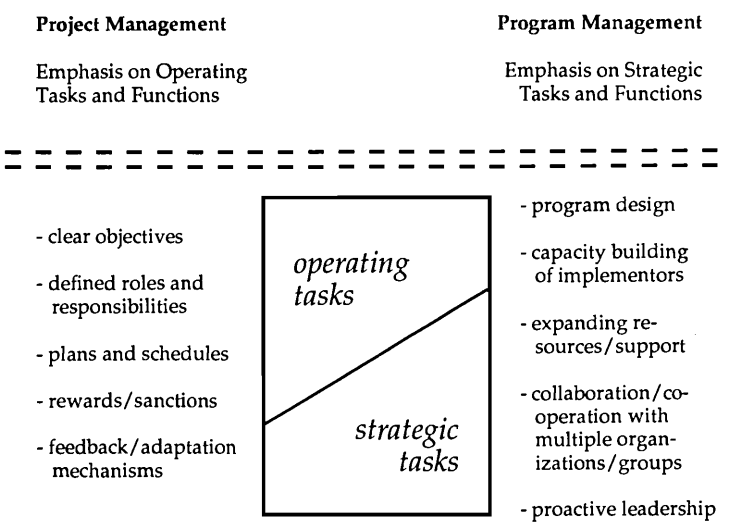
Kiggundu (1989: Chs. 2 and 3) distinguishes between two categories of managerial roles: those that deal with operating tasks—for example, internal administration, employee supervision, input monitoring, technical production management, and so on—and those that deal with strategic tasks: long-range planning, developing a strong organizational culture, managing organizational interdependencies, influencing key constituencies, etc. He stresses that effective management of both kinds of tasks is critical for development, but in developing countries attention to the strategic tasks by individual organizations has been lacking (see also Paul 1983a).

The need to deal effectively with operational and strategic tasks is shared by project and program management. What differs is the mix between the two types of managerial tasks. Applied research on project management has identified a cluster of generic functions associated with success that relate mainly to operational tasks. These include specification of objectives, defined roles and responsibilities, realistic plans and schedules, performance-supporting sanctions, and feedback/adaptation mechanisms (Brinkerhoff 1986a, Brinkerhoff and Ingle 1989, Eckert and Kettering 1984). White (1987: 24-29), looking at program management, identifies five functions fulfilled in common by successful program managers. These concentrate for the most part on strategic management tasks. They are contributing to the development content of program design, building the capacity of implementing organizations, expanding program resources and political support, directing the collaboration and coordination of multiple organizations and groups, and providing proactive leadership.

One way of thinking about the links between project management and program management tasks is to place the generic set of operational tasks associated with projects at one end of a continuum and the set of of strategic tasks associated with programs at the other. This is illustrated in Figure 2.1, which shows that program management consists of a higher concentration of strategic tasks relative to project management, though they share some of the tasks in both categories. This overlap means that certain core project management techniques and tools are also useful and appropriate for the operational side of program management, and conversely the strategic orientation that constitutes a major focus of program management is useful for project managers as well. The proportions of the blend of operational and strategic tasks will vary depending upon the nature of the particular project or program. Brinkerhoff and Klauss (1985) note, for example, that social development projects—those that seek to combine service delivery with mobilizing local people to take charge of their own development—call for managers to be entrepreneurial and oriented toward analyzing and influencing the environment external to the project organization. Social development project management roles, then, approach the strategic end of the continuum and are closer to program management roles than those associated with conventional project management.

It is as important to recognize the links between projects and programs as to identify their differences. Given that their conceptual boundaries cannot be

Figure 2.1 A Continuum of Project and Program Management Tasks and Functions



definitively delineated, the continuum notion most usefully represents the linkage and the overlap between managing projects and programs. Thinking about the two in this way is significant because it shows that much of what has been learned about project management has utility for program management, and vice versa. Though the target of this book is the program, its guidance and lessons build on a cumulative base of experience that includes both projects and programs.

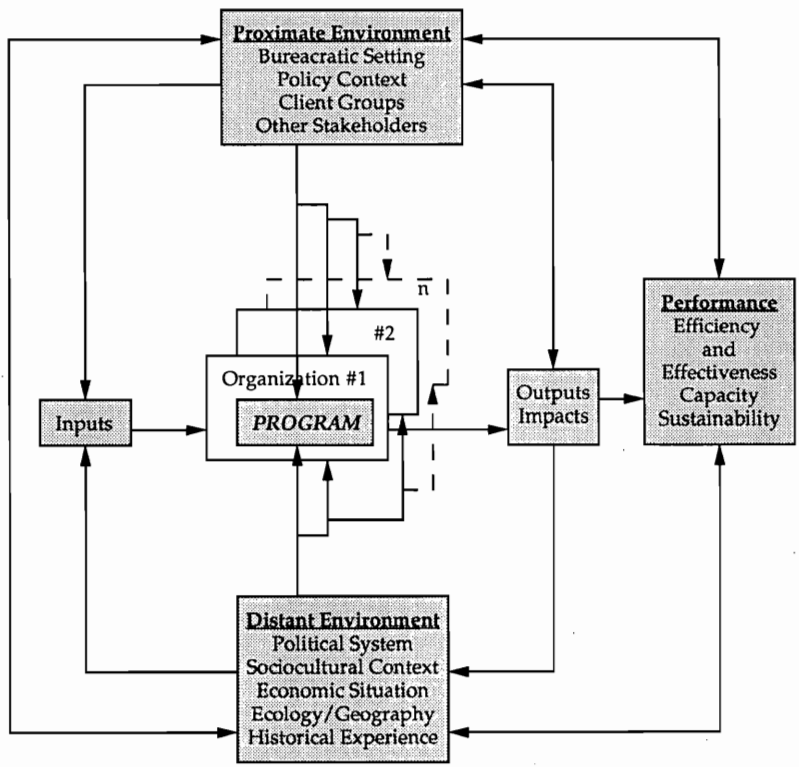
A MODEL OF PROGRAM MANAGEMENT

We now move from examining the characteristics of programs to developing a model of how programs operate. This allows us to specify what kinds of things managers need to look at to make their programs successful. In essence, a model, or a conceptual framework, consists of a set of concepts together with their specified interrelationships. Simply stated, the model developed here describes the hypothesis that program performance, the dependent variable, is influenced by two sets of independent variables: (1) "outside" or external factors, those that make up the program's environment or context, and (2) "inside" or internal factors, i.e., the program's structure, its modes of operating (systems

and processes), and its human resources. Depending upon the particulars of a given situation, program managers can direct their attentions and efforts to have an impact on various combinations of factors from these two sets to improve performance.[7]

The model is illustrated in Figure 2.2 and overviewed below. The discussion here and throughout the book takes its orientation from the perspective of the individual program manager. Managers look out at their programs' environments, they look in at their programs and implementing units, and they look ahead to outputs and performance.

Figure 2.2 A Conceptual Framework for Development Program Managers



Looking Out: Program Environments

As the characteristics of programs make clear, programs are integrated into their settings in several key ways: they function within the developing country's bureaucratic network and are normally implemented by national staff, they are linked to national policies, and they operate in many different areas of the country. These features make it crucial that program managers direct their attention not just inward to the inner workings of their programs, but that they focus outward on the environments their programs of necessity must confront and deal with.

In the most general sense, a program's environment is anything that is not a part of the program itself. To be useful, however, a more specific definition is needed: those factors outside a program that affect its functioning. For program management purposes, these environmental factors can be divided into two clusters: (1) those factors that have direct interactions with and/or immediate impacts upon the program and (2) those factors whose impacts are more indirect, felt through their effects on intervening factors. The first cluster can be termed the proximate environment and the second the distant environment.

Box 2.1 The Impact of the Bureaucratic Setting: Railway, Road, and Port Operations Programs in Southern Africa

In Zambia, Botswana, Zimbabwe, Swaziland, Malawi, Tanzania, Lesotho, Mozambique, and Angola—the nine countries of the Southern African Development Coordination Conference (SADCC)—donor-funded capital investment projects have supported building new railway, road transport, and port facilities and rehabilitating existing ones. Responsibility for managing these facilities is assigned to national parastatal agencies in the various countries, integrated into their ongoing transportation programs. These organizations, though, impose serious constraints on the programs, and there is a danger that the new and/or rehabilitated facilities will quickly deteriorate as a result of weaknesses in the bureaucratic setting.

Program managers in the transportation sector parastatals have confronted a variety of difficulties. A sampling includes the following. Resources for operating and maintenance costs are scarce, and government-set rate structures limit possibilities for cost recovery and the installation of sound financial practices. The provision of subsidies to the region's railroads removes the pressure for efficiency and responsive services that contributes to a performance orientation among program staff. Road permits for truck transport are issued by the traffic commissioner's office, located in the capital cities in most of the SADCC countries; but permit issuance is needed on a regional basis. In addition, bureaucratic duplication and rivalries between SADCC and the PTA (Preferential Trade Area for Eastern and Southern African States) have subjected transportation programs to overlapping, shifting, and sometimes conflicting rules and requirements.

Source: Banda et al. (1987)

The Proximate Environment

Within the proximate environment, the key factors that have a direct influence or effect on programs are the following.

1. *The bureaucratic setting.* Because programs are located in organizations, a program is subject to the bureaucratic context in which its implementing organization(s) are situated. Key actors in this setting are the various entities that (a) provide the inputs the program and its implementors need to operate, (b) control access to the needed inputs, (c) compete with the program for inputs, and (d) are the program's allies or collaborators. Box 2.1 offers an example.

2. *The policy context.* Programs and their goals are an operational response to a subset of national policy. Thus, policies have an impact on program content and the technical validity of the solution a program seeks to use to resolve a development problem. A good example is agricultural pricing policy. For an agriculture sector program, such policies influence the price and availability of inputs, the price farmers can obtain for their crops, and thus farmers' incentives to produce. Box 2.2 illustrates this situation in Senegal.

Other types of policies influence program operations as well. For example, civil service policies affect the staff who implement a program, creating incentives for certain behaviors and discouraging others. Government administrative policies also influence operations. For example, the finance ministry's policies affect the procedures a program must follow to obtain budget approvals and disbursements. Or they also can affect the availability of foreign exchange and consequently a program's ability to purchase equipment from overseas.

3. *Client groups.* A program's target group, or intended beneficiaries, consume or use the outputs that the program produces. Although the terms "client" or "target group" imply a relatively passive role, such groups often possess a powerful ability to influence program performance. The Bakel farmers' response to SAED and government policies detailed in Box 2.2 illustrates this power.

4. *Other stakeholders.* Beyond clients there are other actors in the proximate environment who are interested in and/or value or oppose what the program does or does not produce. These can include local or national elites, religious leaders, community groups, politicians, unions, and so on. Another frequently influential stakeholder is the international donor that supports the program.

The Distant Environment

This category of variables contains factors that configure the political, sociocultural, economic, and physical settings that programs operate in. In general, they influence programs indirectly via the proximate environmental fac-

Box 2.2 An Example of Policy Impact on Program Operations: Regional Development in Senegal

The National Corporation for the Development and Exploitation of the Senegal and Faleme River Basins (SAED), established in 1963, has implemented national agricultural policy in two river basins through a variety of programs in infrastructure creation and input supply. Many of these programs are composed of donor-funded projects relating to SAED program priorities. In the 1980s, SAED moved some of its activities toward the upper part of the river basins around Bakel, with USAID support.

At that time, a major policy objective was reducing the national food deficit. World prices for Senegal's main export crop, peanuts, were dropping and the country needed to look to other food crops. SAED's mandate derived from four policies announced by the government in support of increased agricultural production: (1) crop diversification, (2) improved pricing and marketing policies, such as increasing the price of imported rice and the floor price for cereals, (3) private sector supply of inputs, and (4) increased farmer participation in production.

SAED entered the Bakel area intending to bring new land under irrigated cultivation for rice. Bakel's farmers, however, had little interest in rice; sorghum, millet, and maize were their preferred crops. They also knew that only about 10 percent of the area was suited to rice. SAED was caught in a dilemma: how to implement rice cultivation to assist the national goal of import substitution while increasing farmer participation and local autonomy. SAED staff began implementation with a top-down approach, encouraging, then pressuring farmers to cultivate rice for sale to the government at fixed prices per official policy, while growing sorghum for consumption. Farmers' association contracts required the sale of surplus paddy after consumption needs were met to reimburse SAED's provision of inputs.

Farmers' response was not what SAED intended. They continued dryland cereals cultivation with small amounts of rice used for consumption or sale locally at market rates. They paid off their loans for inputs from SAED with remittances from migrant workers in France and declared they had no surplus rice to sell. When some villages sought to move into other high-value crops, SAED cut off their supply of pump fuel and parts. The farmers revolted, leading to the firing of SAED's director.

At about the same time, the Senegalese government changed its policies regarding the role of parastatals in production and fixed prices for sale of agricultural commodities to the government. Parastatals were no longer the sole buyers of farm production, and prices were allowed to fluctuate to reflect the market. Renewed emphasis was placed on farmer autonomy and participation. With these changes (and new leadership) SAED's program and the new irrigated technologies began to be accepted by Bakel farmers. They were able to plant and market what they wanted and obtain better prices from the government as well. The policy support of the farmers' needs and desires proved critical to the success of SAED's operations.

Source: Seymour et al. (1985)

tors or through the programs' implementing organizations. The model highlights five factors: political system, sociocultural context, economic situation, ecology/geography, and historical experience.

Depending upon what a program seeks to accomplish, different factors in the distant environment become important. For example, family planning programs are affected by the country's social mores dealing with religious belief, procreation and the family, and the roles and prerogatives of the state, men, and women. To take another example, community development programs are constrained by geographic factors such as distance, nature of the terrain, and/or settlement patterns. Box 2.3 shows the impact of another of these distant factors: the historical.

Program managers need to be able to identify and assess critical factors in both the proximate and distant environments and to develop and implement strategies for coping with those factors. As Figure 2.2 illustrates, programs obtain their inputs from the environment and direct their outputs to the environment. The ability of a program to achieve and maintain performance is critically dependent upon environmental factors. This aspect of program management is covered in Chapter 3.

Looking In: Program Design, Structure, Systems and Processes, and People

How programs are designed and the specifics of what they are supposed to accomplish obviously have major implications for program managers. National planning requirements and donor procedures play a large role in fixing how programs are designed. These rules determine the path program managers follow in their role as program designers. Program content reflects varying levels of innovation, and program managers must deal with a two-way match here. The first match is between the level of innovation and conditions in the environment. The second is between the level of innovation and the strategies of the program's implementing organizations.[8] Chapter 4, on program design, treats these concerns.

Program structures cross individual organizational boundaries to create implementation networks. Figure 2.2 illustrates this by delineating the program as embedded in a set of organizations. Because programs are integrated into ongoing organizations, program managers need to look inward to see how these organizations are set up and what goes on inside them, to identify the degrees of freedom available in structuring their programs. Program structures vary in the degree to which they are authoritarian or egalitarian, hierarchical or nonhierarchical, formal or informal, centralized or decentralized. Chapter 5 discusses structure.

Systems and processes concern how things are done within the program structure. Systems of all types (information, finance, personnel, and so forth)

Box 2.3 Historical Antecedents of Moroccan Agricultural Policy and Programs

Various donor-funded programs and projects have sought to contribute to solving Morocco's problems in the agriculture sector, where declining production and population increases have led to growing trade deficits and an inability to provide citizens with the cereals that are the mainstay of the Moroccan diet. USAID figures show that from an agricultural trade surplus of approximately $95 million in 1969, Morocco was running annual deficits on the order of $260 million to $300 million by the 1980s. The country faces an economic crisis of major proportions: balance of payments difficulties, declines in per capita income, low productivity, increasing hardship for the rural and urban poor, and new competition in its traditional export markets. Currently, the country is implementing economic stabilization and structural adjustment programs financed by the World Bank and the International Monetary Fund.

Since the days of the French protectorate, Morocco has focused on irrigated agriculture despite the significantly higher potential productivity of rainfed crop production. While flawed design and implementation weaknesses have diminished the effectiveness of past dryland agricultural development programs, according to an in-depth study by Swearingen (1987), these internal factors are not the main source of these programs' poor performance. Rather, historical factors in the Moroccan environment and their impact on the policy context for Morocco's agricultural programs are the root cause.

The study traces how in the 1920s and mid-1930s French colonial policy sought to convert Morocco into the breadbasket of France, based on an image of the country as the former granary for the Roman Empire. This set in motion the accumulation of large lowland landholdings by Europeans, while peasants were squeezed onto small plots in the less fertile highlands. In the mid-1930s, policymakers, inspired by a vision of Morocco as the California of the Mahgreb, shifted their emphasis to irrigated citrus and vegetable crops. A water resources plan developed in 1938 called for 1 million hectares under irrigation by the year 2000.

The shape of agricultural development today in Morocco derives from policies that remain essentially identical to those of the colonial era. The national million-hectare plan targets the same goal as the 1938 one. An extensive program of dam construction is ongoing. Members of the Moroccan elite have replaced European settlers as the owners of large colonial landholdings. Land reform to date has been small-scale and cosmetic, leaving the peasant majority with economically nonviable holdings in the more marginal drylands. The gap between the modern, irrigated and the traditional, rainfed agriculture sectors has widened.

Moroccan agriculture is a case where the impact of the historical and policy contexts on programs can be clearly identified. Although these factors' impacts are mainly felt indirectly and lie beyond the influence of program managers, they are nonetheless important conditioners of program success.

Source: Swearingen (1987) and USAID (1986)

set standards, determine operational requirements, and affect incentives. Systems are accompanied by processes, either formalized or informal, that characterize their use. For example, is program planning conducted in a participatory way, or are plans assembled by a small group of senior staff members? Are subordinates issued orders they are expected to carry out without questioning or modification, or do they have the latitude for making changes on individual initiative?

Although the flow diagram in Figure 2.2 does not show them, people and their actions are the medium through which program managers accomplish their objectives. Therefore, the characteristics and behaviors of program staff are important for performance. What skills do they have and/or need? What motivates them? What kinds of leadership are appropriate? Human resource issues extend beyond the immediate program personnel to include program clients and beneficiaries. Many development-oriented goods and services are "coproduced" by the program and its intended clients in the sense that without appropriate inputs, responses, and actions on the part of beneficiaries the goods and services would not exist.[9] For example, a health ministry program to establish rural community health services could not provide those services without the participation of the villagers who, though not members of the ministry organization, are selected to be community health workers. Systems, processes, and people are the topics of Chapters 6 and 7. Box 2.4 provides an example of how internal program factors can influence successful performance.

Looking Ahead: Improving Performance

The focus of this book is on management to support development program performance. However, the concept of performance—What is it?—and measuring performance—How do we know whether we've got it and how much is there?—are problematic, especially in the public sector and in the realm of socioeconomic development. Issues of efficiency, effectiveness, equity, distribution, values, culture, and power affect both the definition and measurement of performance.[10] Nevertheless, program managers need to be able to develop definitions of performance appropriate for their particular programs and organizations, to identify gaps in performance and deal with performance improvement, and to measure progress. These definitions and measures will help to guide their own actions and provide the basis on which to report performance information to those who need it—for example, their superiors, the planning ministry, the finance ministry, donor agencies, and so on. These concerns are examined in Chapters 8 and 9.

Although specific performance targets and measures will vary depending upon the type of program and the situation in the country, performance in general terms can be thought of as composed of three dimensions:

1. *Efficiency and effectiveness.* Programs transform inputs into outputs, results, and impacts. Apart from the cost of the inputs, the transformation pro-

Box 2.4 Successfully Dealing with Internal Program Factors: The Onchocerciasis Control Program in West Africa

The Onchocerciasis Control Program (OCP) is a multidonor, multicountry, twenty-year effort to control river blindness, transmitted by the bite of infected female blackflies. During OCP's first two phases, 1974-1985, it achieved dramatic reductions in disease incidence across large geographic areas at an estimated cost of only one dollar per person per year. Fifteen million hectares of tillable land in former onchocerciasis-endemic areas have been opened to cultivation, providing significant opportunities for increased agricultural production and economic growth.

Factors associated with OCP's design, structure, systems, and staff were identified by a USAID evaluation team as contributing to its successful performance:

Program design. OCP's strategy of disease control, rather than eradication, was appropriate to the level of technology and resources available. The design incorporated a high degree of flexibility and iterative learning-by-doing, building in intensive applied research up front, and tracking results throughout. A decade of experimentation with various control methods was required before an appropriate intervention package could be formulated and widely used.

Program structure. OCP piggybacked its structure onto an existing multilateral organizational framework already in place—that of the World Health Organization (WHO). The WHO already had established linkages with health sector agencies in the participating countries. OCP allocated tasks to the private sector to take advantage of efficiencies, and highly specialized program components were contracted out, such as aircraft operations for aerial spraying, larvicide and therapeutic drug development, and environmental monitoring.

Program systems. OCP established a regular monitoring system in the affected areas to guide and assess control activities and evaluate progress. The system contained several levels of monitoring, ranging from in-depth epidemiological surveys of 142 villages to assess infection status to spot checking of resource utilization to manage costs. OCP's financial system ensured continuity of effort because donors and participating governments made long-term commitments of support.

Program staff. OCP's structure based on WHO units gave the program access to worldwide talent as well as qualified professionals in the participating countries. A formal training component for developing country program staff enhanced the quality and competence of indigenous health care systems.

Building on the success of its first two phases, the OCP's third phase is ongoing (1986-1991). The program has extended into four more countries in the region and is developing a low-cost technology to enable OCP countries to maintain onchocerciasis control for the long term.

Source: Kelly, Shiff, et al. (1986)

cess itself requires resources (e.g., staff salaries, office leases, etc., must be paid). In addition, the technology employed consumes resources. Despite the measurement problems, the notions of efficiency—the cost of transforming inputs into outputs—and effectiveness—the utility and appropriateness of outputs relative to the development problem their production is intended to solve—are critical to program management. Particularly in developing countries, where the gap between available resources and needs is wide, the definition of performance must include some way of assessing both efficiency and effectiveness.[11] In the case of tangible, quantifiable results, performance is directly observable and measurable. Where results are less concrete and visible, proxy measures must be used.

2. *Capacity.* This is the latent ability of the program organization(s) to generate outputs. Because capacity becomes verifiable only when used, it cannot be directly measured except in the sense of a presumed potential based on past action with a given set of resources and inputs. Capacity assessment relates existing physical, human, and administrative resources to the ability to combine those resources effectively to produce results, based on past performance and comparison with similar organizations.

3. *Sustainability.* The third dimension of performance incorporates both capacity and efficiency/effectiveness to address the related issues of continuation over time and responsiveness to needs and desires. Sustainability can be defined as the ability of a program to produce outputs that are valued sufficiently by beneficiaries and other stakeholders that the program receives enough resources and inputs to continue production.[12] Because one of the characteristics of programs is that they continue over time, the sustainability dimension of performance is critical to program success. The value component of sustainability highlights the need for a program to produce something that stakeholders, both within the organization(s) implementing the program and in the program's environment—beneficiaries and/or other interested parties—want enough that they are willing to allocate time, energy, funds, political support, and so on to ensure the program's continuation. Sustainability is not simply survival. There are plenty of moribund entities in developing countries that limp along with just enough resources to pay their staff but provide no services or serve no useful function beyond employment for the few. Such entities contribute next to nothing to socioeconomic development, and, worse, they create deficits.

SUMMARY: IMPLICATIONS FOR PROGRAM MANAGERS

Our model suggests that program management consists of a blend of three kinds of tasks: looking out, looking in, and looking ahead. Program managers look out for mission and objectives, clients to serve, inputs to obtain, key stakeholders to please, a bureaucratic setting to navigate, a policy context to articulate with, and a political, sociocultural, economic, physical, and historical nexus

to appreciate or to influence when possible. They look in at program design, structure, systems and processes, and people. They look ahead to outputs and impacts and then to efficiency, effectiveness, capacity building, and sustainability.

Program management means undertaking these tasks continuously (as indicated by the feedback loops in the model illustrated in Figure 2.2) and making adjustments, modifications, and shifts of direction in response to results and change. The need for responsiveness and adaptation reflects the importance of the strategic dimension of program management relative to operations. In the course of looking out, looking in, and looking ahead, program managers fulfill the five key functions of program management (Figure 2.1):

1. Contributing to the development content of program design
2. Enhancing the development capacity of implementing organizations
3. Expanding program resources and politico-bureaucratic support
4. Coordinating and collaborating with multiple organizations and groups
5. Exercising proactive leadership

Each of these functions incorporates a mix of the outward-, inward-, and forward-looking dimensions of program management. The book's subsequent chapters examine how program managers can fulfill the functions most effectively as they seek to improve the performance of the programs they are responsible for.

NOTES

1. Perhaps the best-known work on managers' internal models is that of McGregor (1960), who analyzed the impact of what he called Theory X and Theory Y on managers' assessments of employee motivations and their resulting solutions to employee performance problems. He applied these two labels to categorize managers' informal theories in this area. To oversimplify, Theory X managers believe that performance can best be motivated by applying "the stick," while Theory Y managers favor "the carrot."

2. In fact, in many of the poorer developing countries, donor-designed and donor-financed project funds end up being used to meet the budgetary needs of ongoing national programs in the absence of sufficient operating revenues. In Haiti, for example, a significant portion of the budget of a large World Bank regional development project went to fund operating costs of the Ministry of Agriculture at the central and local levels (Brinkerhoff 1988).

3. For another perspective, see Paul (1982: 6-11), who defines programs in the following terms:

- They are the product of a specific national policy and legislation.
- They are initiated and managed by a host country government entity.
- They are focused on development tasks, as opposed to regulatory or mainte-

nance ones.

- They have an organizational identity, and are connected to a relatively permanent organization.
- Their mission is to replicate and adapt development services/products to spread them over a larger area or an entire country.

4. This modification and adjustment process can be thought of as replanning or redesigning the program. Thus, there are similarities between the design and adaptation tasks, which is one of the ways that planning and design remain important elements of program managers' jobs. For example, the Caribbean Agricultural Research and Development Institute established an annual planning-replanning process integrated into implementation to manage its farming systems research program. See Hart and Ingle (1986).

5. For projects, this notion is embodied in USAID's Logical Framework approach to project design, which consists of a hierarchical ordering of causal linkages that seeks to identify the necessary and sufficient conditions that will result in the attainment of the next higher level. For a given project whose goal represents a potential solution to a development problem, the Logical Framework posits a chain of input-to-output-to-goal relationships that form the conceptual basis for the project. See Delp et al. (1977).

6. Harbeson supports this view, arguing that the difference between projects and programs is not that one is experimental and the other is not but that the underlying hypotheses are different. In the case of programs, he states that "the hypothesis is that [large] size and [extended] length of development undertakings and linkage with, rather than detachment from, ongoing social and governmental processes will facilitate. . . development" (1985: 3).

7. While some organization theorists argue for the predominance of one set of variables over the other in terms of explaining differences in performance, the literature and experience support elements of both as playing important explanatory roles (Keats and Hitt 1988). For this reason, our program management model incorporates a balance of the two variable categories. Underlying the model are concepts from three streams of social science: systems theory, contingency theory, and political economy. Each of these contributes several key notions to the analysis of program management.

Systems theory. Basic here is the central idea of a system—a set of things that for a given purpose have more links/interactions with one another than with other things—that is distinguished from its environment by conceptually drawing a boundary that separates what is internal to the system from what is external. Other key notions are (a) the concept of system hierarchies, where lower-level systems can be thought of as subsystems or components of higher-level systems; (b) the proposition that all systems obey similar rules (e.g., the law of entropy) and have similar requirements for functioning and survival (inputs, transformation processes, outputs); and (c) the idea that system components, and systems and their environments, are mutually interdependent and in constant interaction. See, for example, Buckley (1967) and Scott (1987).

Contingency theory. This body of theory contributes two principal concepts. First, there is no single best way to organize and manage that is valid for all situations. Rather, what is most appropriate is contingent upon a variety of factors both internal to the organization and in its environment. Second, successful functioning and survival result from finding and maintaining a fit among the internal factors and between

them and the external factors. Contingency theory emerged from work by U.S. organization specialists (see Lawrence and Lorsch 1967, Thompson 1967) and has been widely applied to the development management field. See, for example, Hage and Finsterbusch (1987), Israel (1987), Paul (1982), Korten (1980), and Rondinelli et al. (1990).

Political Economy. There is no single or unified theory of political economy; it is basically concerned with the relationships between economic processes (production and exchange) and political processes (power and its distribution). Various theorists and advocates have conceptualized the nature of these relationships in differing ways, but the relative lack of consistency of terminology and of empirical assessment has led some to view political economy as more of an agenda than a body of theory (see Staniland 1985). Whether agenda or theory, analyses using political economy approaches offer the following concepts useful here:

a. The view of individual actors (or groups of actors—formal, e.g., organizations, or informal) as decisionmakers and resource allocators who act in their own self-interest
b. The notion of exchange relationships among actors with differing access to, and amounts of, resources, information, authority, power, and so forth, pursuing their interests mediated by market or quasi-market structures (see Ostrom et al. 1989)
c. The idea that the characteristics of exchange or market situations create incentives for intendedly rational actors to behave in certain identifiable, patterned ways
d. The conception that "rationality" is not solely an economic phenomenon but has cultural, political, bureaucratic or organizational, and individual value manifestations as well

In the development field, a major application of political economy thinking is represented by the now widely accepted view of peasants and small farmers as rational actors and resource maximizers rather than as victims/prisoners of traditional and backward values and practices (Popkin 1979). Applications have extended to development administration—that is, developing country bureaucrats, politicians, and project staff as rational actors. See Peters (1978) and Honadle and VanSant (1985). The political economy perspective has also been applied to developing country governments and policymakers; see, for example, Bates's widely cited study of the negative incentives for farmers created by many African nations' agricultural policies and the detrimental impact on production (1981). See also Uphoff and Ilchman (1972).

8. The standard conception of strategy is an explicitly articulated set of long-range goals and the policies and plans devised to achieve them (Porter 1980). However, a broader definition conceives of strategy as any discernible pattern of decisions taken by key actors (Mintzberg 1978). This definition is useful in that it (a) facilitates the identification of strategies in situations where the actors are either unable or unwilling to articulate them, and (b) permits the distinction between what actors espouse as their strategies and what they actually pursue.

9. In the U.S. public administration field, the conception of public services as resulting from a process of coproduction by service delivery agencies and their clients has been relatively widely used as an analytic construct (see Whitaker 1980 and Levine 1984). In development administration, coproduction is addressed from an instrumental

perspective in the literature that looks at the contribution of beneficiary participation to improving service delivery efficiency and effectiveness (see Garcia-Zamor 1985 and Mathur 1986). From an ideological perspective, coproduction is viewed as one component of community empowerment and self-determination (see, for example, Korten 1983 and Korten 1984).

10. See, for example, Kanter and Brinkerhoff (1981), Cameron and Whetten (1983), Miller (1984), and Prokopenko (1989).

11. Although efficiency and effectiveness are frequently viewed as goals to be achieved in tandem, in the case of development programs that seek to devise new solutions to problems, the two can be separated. Korten (1980) suggests that development managers who seek to respond to community needs focus first on learning to be effective, i.e., discovering what works, and then on learning to be efficient, doing what works for less. Especially for highly innovative programs, it is usually unrealistic to try to do both at once. However, sustainability depends upon being effective with the level of resources available in the long term, so becoming efficient will be critical.

12. Sustainability is currently an issue of key concern in both donor agencies and developing countries. It has a variety of definitions, many of which focus on the financial and economic aspects and equate sustainability with successful resolution of the recurrent cost problem or with the ability of capital investments to generate the stream of benefits needed to recoup their costs (see Heller 1982 and Kearns 1988). Another set of definitions deals with the ecological sustainability of production systems, including agriculture, given present and emerging technologies (see Tisdell 1988). The approach to sustainability taken here emerges from the work the International Development Management Center and the Development Program Management Center have done on institutional sustainability (see IDMC/DPMC 1988, Brinkerhoff and Goldsmith 1990).

3

The Program Environment and the Policy Setting: Appreciating, Adapting, and Influencing

This chapter is about the outward-looking components of program management. A primary task in looking out is deciding what in the environment is important for program managers to pay attention to and what is not. The chapter begins by examining this question, followed by a discussion of how to identify and cope with the constraints and opportunities in the program environment. That leads to consideration of methods that program managers can use to influence their environments rather than simply reacting to them. A discussion of policies as a particularly important aspect of program environments follows. The chapter concludes with a summary in the form of guidelines.

ANALYZING THE CONTEXT: WHAT'S IMPORTANT?

The most widely accepted approach to environmental assessment divides the looking-out task into concentrating upon economic, sociopolitical, technological, and other relevant factors that appear to have the most impact on program performance and sustainability.[1] The importance of one or more classes of factors differs among sectors and situations. For example, in an agricultural or industrial program, economic and technological factors that influence production, productivity, and return on investment are often the most relevant. However, in a family planning program, social or cultural factors may be the most salient. Thus, what in the environment is important derives, at least in part, from the nature of the program itself. To take a specific case, small-scale enterprise development programs seek to promote income generation among the rural and urban poor by stimulating and supporting entrepreneurship and small business creation and expansion (see Farbman 1981 and Adoum 1986). Problems common to small-scale entrepreneurs include lack of capital, avail-

ability and access to raw materials, marketing, lack of needed skills (literacy, accounting, management, etc.), and official barriers to entry (licenses, taxes, registration).

In looking out at such program environments, several key factors stand out as among the most important in relation to these problems. Government policies and practices relating to commercial licensing, importation of raw materials, export of finished goods, banking and finance, market regulation, and employment are central. Certain socioeconomic variables descriptive of the work force are also relevant: income levels, education levels, rural-urban residence, skills mix, and so forth. Significant technical factors encompass production technologies and economies of scale, market supply and demand, competition, comparative advantage, mechanisms for credit provision, and so on. Thus, program designers and managers in the small-enterprise sector should allocate their time and energy to examining and analyzing these environmental factors (see Box 3.1 for an example).

A complementary approach provides another piece of the answer by looking at the environment in terms of certain properties or characteristics. Is the program's environment complex, uncertain, threatening, supportive, or some combination of all of these? Over time, how will these characteristics change? Might they shift in ways that can help the program, or deteriorate with a possible detrimental impact on it?

For example, the environmental factors identified as critical for small-enterprise development programs can be assessed to answer these questions. The results can be used to rate environmental characteristics. USAID's study of assisting small-scale entrepreneurs divided environments into two large categories: favorable and unfavorable (Farbman 1981). A favorable environmental rating for small-enterprise development was given if (a) government policies do not impose excessive barriers to the informal sector, (b) banks are receptive to extending credit to the urban poor directly or through intermediaries, (c) economic conditions are improving and thereby providing new and/or expanding small business opportunities, (d) physical infrastructure is adequate, (e) program beneficiaries reside close to supplies of raw materials and markets, and (f) beneficiaries are literate, have previously owned microenterprises, and have some savings capacity (Farbman 1981: 44-46). If such variables were not present or only partially present, then the environment for small-enterprise development was rated as unfavorable.

Successful program managers combine these approaches and use the answers to achieve and maintain a fit among the program's environment, design, structure, processes, and people so as to achieve sustained performance (see Paul 1982). As will be discussed in later chapters, certain types of program designs, structures, and processes fit complex and changing environments better than others.

Judging the importance of various environmental factors depends upon being able to answer the question, Important in relation to what? The "what"

Box 3.1 The Environment for Small-Scale Enterprise in Peru

In seeking to analyze the environmental constraints important for business start-up by small-scale entrepreneurs in and around Lima, Peru, the staff of the "Instituto Libertad y Democracia" (ILD) chose a novel analytical approach: they simulated the establishment of a small industrial enterprise. In 1983, an ILD team set up a garment factory on the outskirts of Lima and initiated the process of legal formalization. This activity was selected for its representativeness of the Peruvian business sector. It required about 60 percent of the bureaucratic procedures common to all industrial activities and 90 percent of those required of non-incorporated individuals.

Establishing a small business entailed obtaining eleven items: certification of use compatible with regulations, zoning certification, enrollment in the National Register of Workplaces, a tax book, certification of residence, commercial registry, industrial registry, employer's registry, registry of national industrial products, environmental sanitation registry, and a municipal license. The results of the simulation revealed that a small entrepreneur must spend 289 days on the bureaucratic procedures needed to fulfill the eleven requirements, involving seven different administrative entities.

The ILD team calculated the cost of compliance with all the regulations and arrived at an average cost per procedure of $194. The nearly ten-month period preceding business operations would result in an estimated loss of net profits of around $1,000. In sum, the Peruvian environment for small industry imposes an access cost roughly equivalent to thirty-two times the monthly minimum living wage.

Source: DeSoto (1989)

contains the mission, goals, and expected benefits of the program. Their specification provides the reference point for looking out by focusing the manager's gaze on a particular set of external factors as distinct from all possible factors. If the program is ongoing when the manager becomes associated with it, then the "what" will already exist, and the task becomes reassessment and redesign because development situations are never static. Under such circumstances, the program manager's first step in the looking-out process is to specify (or respecify) an initial set of goals, objectives, activities, and benefits.[2] The discussion here includes this step.

To determine what is important in the program environment, managers need to ask and answer three questions:

1. What does the program intend to accomplish and what will be the short- and long-term benefits?
2. What does the program need from its environment to achieve its objectives and produce the intended benefits?
3. Which stakeholders have the resources the program needs?[3]

Each of these questions is explained and expanded upon in the following sections.

What Are the Program's Goals and Intended Benefits?

The initial answer to this question emerges from the investigation of sector needs and discussions with potential beneficiaries, service providers, and funders. The results of these reconnaissances, problem analyses, and discussions produce a preliminary elaboration of the intended outcomes and benefits. To highlight sustainability issues, the long-term benefits should clarify the behavioral and/or other substantive changes that must take place for the benefit flows to continue over time. For example, an agricultural program that aims to increase cassava production would specify not simply research and extension objectives and short-term production targets, but also long-term productivity gains, expected shifts in farmer behavior, changes in consumer demand, potential effects on the cassava market, the development or responses of processing and marketing facilities, and so on.

A variety of analytic techniques exist for specifying benefits. These include the familiar tools of project analysis: net present value, benefit-cost, internal rate of return, and financial and social accounting.[4] Despite the limitations of these techniques and their oversimplifying analytic assumptions, program managers find them useful in two ways. First, if used judiciously, they provide an impetus to sharpening managers' thinking on what their programs are about. This process can lead to increased specificity and clarity, which can point to areas that will require additional attention during design and implementation even if further quantification is impossible or inappropriate. For example, conducting a social benefit–cost analysis can pinpoint externalities, both positive and negative, that will have an important impact on the technical sustainability of what a program seeks to achieve. Such factors can be critical to impacts on the natural resource environment, food production systems, human resources, and so on.[5]

Second, the output of these analytic techniques provides a form of universally accepted "shorthand" for presenting projects and programs to decision-makers. Preoccupation with budgets and financial resources among key actors in the bureaucratic setting means that program managers must develop some basic set of quantifiable information relating to program goals and benefits to obtain the approvals they need and ultimately to generate long-term support.

This second use of techniques for benefit specification and impact leads to another piece of the answer. Program managers need to elaborate a set of goals and benefits that will be supported by those who provide the resources necessary to continue delivering goods and services to beneficiaries over time. Specification here includes targets for political, bureaucratic, and financial support, including recurrent cost recovery. These targets are as critical to sustain-

Box 3.2 Benefits Assessment in the Caribbean Agricultural Research and Development Institute (CARDI)

Both donor and internal reviews of CARDI's work in the islands of the eastern Caribbean during the 1980s indicated that the institute had made a significant contribution to agricultural development and production. However, empirical evidence of CARDI's beneficial impact on individual islands and on the region had not been systematically gathered and analyzed to communicate forcefully to the broader agricultural research community, political leaders and policymakers in CARDI member countries, or donors. In 1987, the Institute's top management decided it was time to employ a more rigorous methodology to assess the impact of CARDI's programs and the benefits accruing to client groups at the farm, community, national, regional, and international levels.

Using the resources and outside expertise available through USAID support, CARDI introduced its staff to benefits and impact assessment methodologies and developed a simple form to begin collecting information for the assessment. The form quantified in dollars the net social benefits of CARDI's programs by calculating social benefits (such as greater production, improved quality, cost reduction, improved nutrition, etc.) of agricultural technologies and subtracting social costs (e.g., labor, land, input purchases, etc.). The information collected allowed CARDI to assess and present the benefits of its programs to key stakeholders. In addition, the benefits assessment exercise has helped CARDI to develop new political support and expand its base of stakeholders as its programs have evolved. Despite fiscal problems, member countries have continued their contributions to CARDI, and USAID is financing a follow-on support project for the institute.

Source: Foster and Ingle (1987)

ability as those that give shape and direction to the program's technical core. However, managers sometimes do not accord them the same importance, operating on the often mistaken assumption that a program with sound technical objectives and benefits will "sell" itself to organizational superiors and sources of funding. The summary in Box 3.2 provides an example of a benefits assessment conducted by the Caribbean Agricultural Research and Development Institute (CARDI) that fulfilled both the analytic and marketing functions.

What Does the Program Need from its Environment to Achieve Its Objectives and Produce the Intended Benefits?

Answering this question can involve technical, economic, political, financial, sociocultural, and institutional analysis. Our management focus highlights what the program needs from its environment to be successfully implemented, which leads to a concentration on institutional and policy dimensions of program contexts. These analyses yield a set of factors that can be classified into those that

managers have the potential to influence and those they cannot, as discussed later in this chapter. For our purposes here, two elements are considered: (1) the key stakeholders and other actors in the environment that affect or are affected by the program and (2) the relationships between them and the program's implementing organizations. Key stakeholders and actors can include other public and private organizations (collaborators, supporters, competitors, and opponents), other sectoral agencies, international donor agencies, beneficiaries, political parties, social and professional groups, the general public, and so on.

For example, Egypt's Basic Education Program included introducing an innovative curriculum. The design team proposed the creation of a curriculum development center and identified the following stakeholder groups as critical: the education ministry (traditional bureaucracy and source of long-term political and financial support), the new minister (reform-minded), the donor agency (providing short-term support to the center), curriculum specialists (open to change), teachers (hesitant to adopt new things), parents and students (relatively conservative), and Islamic religious leaders (conservative). The program needed things from each of these to succeed.

Development programs obtain what they need to function through exchange relationships between the implementing organization(s) and major actors in the environment. These transactions can be categorized into various types: financing, secondment of personnel, political and bureaucratic support, public relations, technical assistance, supply of physical materials and products, service delivery, and policy support and reform. Desired outcomes and benefits will not be achieved unless program managers, through their implementing organizations, successfully establish, monitor, and nurture these transactions.

An important feature of transactions, defined as exchange relationships, is that they are two-way. The program gets something, but it gives something in return. Maintaining balanced exchanges is key to sustainability. This means compromising and looking for second-best solutions to problems that satisfy both sides, even if they do not get everything they want.

The new curriculum development center in Egypt, for example, needed funding from the donor agency (USAID), staff from the ministry and local professional groups, bureaucratic and policy support from the new minister, new skills and ideas from technical assistance personnel, and political support from the teachers' union, parents, students, and religious leaders. Managing the center to develop and introduce the new curriculum required building effective transactions with all these groups.

Which Stakeholders Have the Resources the Program Needs?

The major stakeholders relevant to the program's short- and long-term goals should first be identified and then described according to (1) the resources they

control and (2) their potential interests in program benefits. Stakeholders command various types of resources. These may be tangible (funds, goods and services, legal authority, physical force) or intangible (information and knowledge, prestige, legitimacy, moral or religious authority, tradition). The more important stakeholders relative to short- and long-term program support should be prioritized and identified in terms of their resources and interests. It should be noted that command over resources and interests is likely to change over time.

Answering this question is akin to political risk analysis; asking who has what the program needs to succeed, and looking at what their interests and resources are, is another way of asking, How risky is the proposed program? The level of risk has significant implications for program management. In any change situation there will be winners and losers; winners will tend to favor the changes and losers to oppose them. Weak winners increase the risks of sustaining change, because they may not have the power or influence to maintain the changes over time. This is a well-known problem in programs seeking to assist the poorest of the poor. Strong losers also increase the level of risk; they may be able to undermine the changes before they can take hold or to divert the program's resources and benefits away from the intended targets.

To continue the Egyptian Basic Education example, success of the curriculum development center will contribute to the minister achieving his mandate; certain offices of the ministry bureaucracy will likely be losers; students may be winners, though their parents may see them as losers; religious leaders will perceive themselves as losers if the new curriculum threatens Islamic tenets; and so on. Each group will have incentives to act one way or another, depending upon their interests and perceptions of whether they win or lose (see Heaver 1982).

Based on such analyses, a summary matrix relating all major stakeholders to transactions can be prepared to illustrate where program managers should focus their attention and develop strategies and tactics to facilitate achieving sustainable results. Table 3.1 illustrates such a matrix for the Egyptian curriculum development center. It should be recognized that this matrix is simplified for purposes of presentation; a full matrix for a program would have a much more disaggregated list of stakeholders and more detailed transactions.

CONSTRAINTS AND OPPORTUNITIES: REACTIVE VERSUS PROACTIVE MANAGEMENT

Program environments comprise certain factors and sets of stakeholders that managers cannot influence or change; these constitute constraints on managerial action. Other factors and stakeholders, however, present potential opportunities for influence to achieve program objectives and contribute to sustainable development (Smith, Lethem, and Thoolen 1981). Program management func-

Table 3.1 A Sample Stakeholder-Transaction Matrix for Egypt's Basic Education Program (Curriculum Development Center)

STAKEHOLDERS / TRANSACTIONS	Financing	Physical Inputs	Political Support	Approvals	Technical Assistance	Service Delivery	Publicity
USAID	✖			✖			
Education Ministry	✖	✖	✖	✖		✖	✖
Finance Ministry	✖		✖	✖			
Curriculum Dev't. Center Staff			✖			✖	
Planning Ministry			✖	✖			
Beneficiaries (students, parents)			✖			✖	✖
Technical Assistance Firms		✖			✖	✖	
Teachers			✖			✖	
Religious Leaders			✖				✖
General Public							✖

tions, as Figure 2.1 illustrates, emphasize strategic tasks over strictly operational ones. These functions all contain important outward-looking dimensions. Successful program management means that managers do more than concentrate on internal operations and simply ignore or react to external forces and changes. They anticipate change and seek to guide or influence external forces in their favor to the extent possible.

This is very different from the perspective that equates management with the pursuit of control (either of internal or external program factors). As Stout (1980: 4-10) points out, the notion that managers can determine outcomes or events is based on unrealistic assumptions of perfect knowledge (of cause and effect) and of the ability to develop perfect solutions. Managers who see their role as exercising control invariably tread a path that leads to a spiral of decreasing performance and diminished capacity. Effective management results from the use of influence and the pursuit of discretion (Cohen and Bradford 1990).[6]

To use influence effectively, program managers need to be proactive, viewing the environment as containing a mix of decisionmaking and action arenas; some of these they can influence and others they must appreciate as fixed constraints (at least at a given point in time). This perspective views the environment as offering opportunities to be taken advantage of, not just posing problems to be overcome. As Mendoza (1977: 71) says, "[A] developing country may be defined as one in which too many opportunities go unexploited, undeveloped, unrealized. And the entrepreneurial manager seeks out opportunities, exploits (in the beneficial sense of the word), and develops these opportunities." Being proactive and entrepreneurial leads managers to influence the environment as an integral part of managing their programs.

What does managing the environment mean? Answering this question uses the stakeholder analysis and matrix developed above. Five tasks are involved: (1) classifying the environment into factors program managers can influence and those they must appreciate as constraints and thus adapt to; (2) assessing the minimum conditions needed for successful program implementation, both in the short and long term; (3) combining the results of the first two tasks to rate the environment in terms of uncertainty and hostility; (4) formulating strategy options for effective transactions with selected program stakeholders; and (5) implementing the option(s) chosen, monitoring results, and modifying the strategy as needed in response to changing conditions and new knowledge gained.

Influencing, Appreciating, and Adapting

As Figure 2.2 illustrates, the environment of a program and its implementing organizations can be divided into the proximate and distant environment. The proximate environment includes the stakeholders with whom the program has direct interactions. Program managers can exert a high degree of influence over some of these stakeholders. Others, however, may not be amenable to influence, and managers will have to treat these stakeholders as constraints to be appreciated. This classification is important in identifying where points of leverage, cooperation, and/or dependency exist or might be created as part of a management strategy.

A key set of stakeholders contains those actors who formulate policies. Programs frequently contain policy changes as part of their package, but they in turn are affected by a whole range of other host government policies. For example, civil service policies affect the motivation of personnel with operational responsibilities for the program, or finance ministry policies have an impact on budget approvals and disbursements. Policies are discussed in detail below.

Factors in the distant environment are those that shape the political, sociocultural, economic, and physical setting within which programs function.

Generally, they influence programs indirectly through their effects on the proximate environment. They also tend to be less amenable to influence by program managers, but this does not mean that they are not worthy of analysis or monitoring.

One of the characteristics of programs is that they have an extended time horizon. Projects are frequently packaged within a two-to-seven-year time frame; programs typically extend beyond that. The implication is that programs will confront different configurations of stakeholders and other external factors in the proximate and distant environments over the years. To remain effective and sustainable they will need to adapt to such changes. This is reflected in the other tasks relating to managing the environment, which will be discussed in the following sections.

Assessing Facilitative Conditions

The second task of managing the environment concerns looking out to see whether the environment is minimally supportive of the program effort. This task consists of a form of threshold analysis. If certain conditions are necessary, look for evidence of those conditions. If they are present, then proceed; if not, then back up and do things that establish such conditions, and then proceed. We term this threshold level of environmental support the facilitative conditions.

Research has shown, and practice confirmed, that the facilitative conditions describe a minimum set of environmental features needed to implement development efforts successfully and achieve sustainability (DPMC 1981, Hage and Finsterbusch 1987, Brinkerhoff and Ingle 1989). Unless they are present at program start-up, or can be created during implementation, programs will most likely fail to achieve their intended results.

The facilitative conditions constitute necessary, though not sufficient, conditions for successful management. An important component of program management, therefore, is to monitor the environment to assess the five conditions and to seek actively to build them among stakeholders if they are absent or show signs of deteriorating. This task often calls for the creative use of influence, including negotiation, bargaining, and so on. The facilitative conditions include the following:

1. *Felt need for change,* often in the form of a perceived gap between actual and desired performance
2. *Commitment to change,* including a willingness to assign adequate resources to implement a proposed solution
3. Multilevel *involvement within the organization* of program decision-makers and staff, plus *participation of key beneficiaries*
4. *Openness to learning,* that is, willingness to innovate and take risks in

search of results
5. *Continuity of effort,* meaning sufficient stability and a minimum assurance of resources to enable follow-through on proposed policies and programs

Assessing the facilitative conditions can be thought of as a precursor to the next task discussed: analyzing the environment in terms of uncertainty and hostility. It is the first step in a two-step process, where the difference is in the depth and comprehensiveness of the assessment. Probing for the facilitative conditions serves as an initial scan that, if positive, triggers the go-ahead for more in-depth analysis. As such, it examines several of the same variables, but in less detail. Looking out for the facilitative conditions is a variant of the rapid reconnaissance methodology used in rural development planning and monitoring (see Chambers 1981, 1985 and Honadle 1982). The aim of assessment of facilitative conditions, however, is targeted to program management and implementation feasibility. Box 3.3 illustrates an examination of facilitative conditions for setting up a business school.

Rating Environmental Uncertainty and Hostility

Analyzing the environment can be a complex and daunting task. A useful way to simplify the task is to score the environment in terms of the amount of uncertainty or hostility present or anticipated. As a general rule, the more uncertain or hostile the environment, the more program managers must monitor, analyze, and adapt to changing and difficult environmental conditions (Brinkerhoff et al. 1990, IDMC/DPMC 1988). Environmental uncertainty or hostility can be thought of as a composite of the following variables:

1. *Level of demand for program outputs.* The lower the demand, the more uncertain or potentially hostile the environment.
2. *Nature of program outputs.* The more the outputs are indivisible and jointly consumable (public goods), the harder to translate support into inputs through individuals' awareness of, and willingness to pay for, the value of outputs; thus the more uncertain the environment.
3. *Characteristics of stakeholders.* The lower the power, authority, and/or status of supportive stakeholders and/or the more interests of different stakeholders conflict, the more uncertain or hostile the environment.
4. *Stability.* The faster the rate of change in the sociopolitical, economic, cultural, and policy settings, the more uncertainty facing the program.
5. *Predictability.* The less predictable the type and rate of changes in the environment, the more uncertainty.
6. *Flexibility.* The less supportive the environment is of changes that the

Box 3.3 Facilitative Conditions in the Dominican Republic

To determine whether to move ahead with the creation of a graduate school of business administration, program designers undertook an initial rapid assessment to investigate facilitative conditions. The analysis targeted the following:

1. Appreciation in the job market of the value of the MBA degree as contrasted with an undergraduate degree or *licenciatura*. In a practical sense, were private sector employers currently paying or willing to pay higher salaries to employees with the MBA?
2. Sufficient demand in the private sector either to assure new graduates of potential employment or to promote firms' financial support for present employees to pursue graduate study and to open up avenues of career advancement upon graduation.
3. A sufficient number of employees in the workplace and the job market with suitable undergraduate preparation and interest in graduate study. Such a potential constituency had to extend into the future to assure the new program of a minimum student body over time.
4. Existence of a quality institution with high academic standards capable of undertaking a new program and having a leadership interested in committing resources to do so.
5. An existing core of faculty and staff motivated to undertake developing a new graduate program.

The initial assessment, conducted in 1982, revealed that these conditions were present in the Dominican Republic. The Universidad Católica de Maestra y Madre was selected as the site for establishing the new program, with USAID support. The program's design supplemented the rapid reconnaissance with more in-depth analysis prior to beginning implementation.

Source: Boatler and Schaeffer (1982)

program might make to adapt to shifting needs and circumstances, the more hostility or uncertainty.

7. *Complexity.* The more complex the environmental linkages among organizations, beneficiaries, stakeholders, relevant policies, or other factors, and the more conflicts between them, the more hostile or uncertain the environment.
8. *Distortion.* The more key actors (organizations or groups) are supported by, and depend upon, external resources to meet their ongoing needs, the more uncertain or potentially hostile the environment.

High levels of uncertainty and/or hostility mean that program managers must devote more of their time and attention to looking out relative to looking in or ahead. They also imply that strategies and structures must be more flexi-

ble to enable response and adaptation to shifts in the environment and that management procedures must allow more discretion to managers and staff given the inability to predict reliably future environmental conditions.

Strategies for Managing the Environment

For the intersections in the matrix indicating crucial transactions, program managers need to develop strategic responses to (a) achieve initial program performance and (b) attain long-term program sustainability. Not all the transactions will be equally important; besides, it is impractical to try to accord each one an equal measure of attention. Managers who try to do so are committing the "sin of comprehensiveness" (Israel 1987; Silverman, Honadle, and Jones 1990). The first step in strategy development, then, is to decide which transactions are the most important to performance and sustainability. The strategies developed have implications for the way programs are designed, structured, and implemented; these concerns are dealt with in later chapters.

Part of the decision involves assessing transactions in the matrix in terms of the degree of possible influence. Some transactions will not be subject to influence and will be constraints to be appreciated, but others will be potentially responsive to the exertion of influence to induce collaboration (Honadle and Cooper 1989). Program managers face circumstances where successful task accomplishment depends upon getting others over whom they have little or no direct authority to work together to achieve program goals.

The Egypt Basic Education Program illustrates this situation clearly. As the matrix (Table 3.1) shows, the proposed curriculum development center will have transactions with USAID in the form of funding and approvals. The manager will need a strategy for obtaining the initial funding and subsequent increments. For the initial funding, this could be a bargaining strategy where education sector officials negotiate with USAID to include some activities in the program that the donor strongly favors and eliminate some that the ministry opposes. Obtaining further funding and approvals will necessitate a strategy of supplying USAID with periodic progress and accounting reports that meet the donor's accountability requirements and build confidence that resources are being well utilized.

Another important set of transactions relates to service delivery. Stakeholders here include the education ministry, the center's own staff, the teachers, the beneficiaries (students and parents), and technical assistance personnel. The transactions between the center and the ministry, for example, will revolve around how the new curriculum is developed and how it is accepted in the schools. In essence, if the new minister has invested some of his political capital in curriculum reform, what he expects in exchange is for the center to "deliver the goods." Strategically, this means that the program's curriculum

reform design needs to include some visible, early successes in the curriculum development process that the minister can use to garner continued support for the reform.

Conversely, the program needs to make sure that other ministry stakeholders do not feel excessively threatened, upset, or overloaded. This means such things as sharing the credit for success with other units, moderating the amount of change and innovation demanded until the rest of the system can cope with it, involving other units progressively, or refraining from fixing blame for earlier, failed efforts at reform undertaken previously by the ministry.

Effective service delivery transactions between the program and teachers, students, and parents all hinge squarely upon issues of incentives.[7] The program, as part of the ministerial chain of command, will already have transactions with teachers but will need a strategy that seeks to convince teachers of the validity and utility of the reform and that builds their commitment to it. This could mean that the program manager establishes joint staff-teacher work teams to design and implement the new curriculum.

Education is a classic case of a service that is "coproduced" by providers and recipients; without students learning, it is difficult to speak of the delivery of education in a meaningful way. So the program needs effective transactions with students and parents to succeed with curriculum reform. This points to developing a strategy that permits student and parent concerns to be identified and addressed during the curriculum development process and that educates students and parents to the benefits of the new curriculum.

Service delivery programs in many sectors fit within the concept of coproduction; agricultural research and extension services depend upon inputs and actions of farmers, rural primary health care networks depend upon community response to the services offered, police services hinge upon citizen cooperation to be effective, and so on (see Levine 1984 and Whitaker 1980). Critical to successful program management is looking out at program beneficiaries and, further, involving them appropriately in program implementation.[8] This involvement can mean provision of information for initial program design, cost sharing through provision of funds or labor, consumption of the services provided, and/or participation in monitoring and evaluating service utilization and impact (see for example, Brinkerhoff 1980, Cernea 1985, or Finsterbusch and Van Wicklin 1987).

Strategic Choices for Managing the Environment

Program managers can choose from two basic strategic alternatives for managing the environment: independent strategies or cooperative ones. Independent strategies work well where managers possess high levels of discretion and authority, a situation that rarely if ever applies to development program management.[9] This leaves managers to select among cooperative and coordi-

nating strategies, which fit the characteristics of program management where implementation takes place in an interorganizational context requiring actions on the part of many different stakeholders to succeed.

Coordination, however, is a term that, while frequently called for as a remedy to development project and program implementation problems, is rarely defined in any meaningful operational way. Honadle and Cooper (1989) distinguish among three types of activities that either individually or in various combinations describe coordination: information sharing, resource sharing, and joint action. Information sharing essentially involves communication, one organization letting other agencies or groups know what it is doing or plans to do. Mechanisms for information sharing include distributing reports; holding meetings, briefings, or seminars; setting up liaison units; or forming committees. Resource sharing means that resources controlled by one organization are allocated to another agency, firm, or entity for the accomplishment of program tasks. Mechanisms here are loans, grants, budget allocations, contracts and agreements, and secondment of personnel or equipment. Joint action means two organizations or entities collaboratively engaging in some activity or activities together, either simultaneously, sequentially, or a mix of both, each using its own resources. Joint activities could include planning, data gathering, monitoring and evaluation, training, and/or supervision. Mechanisms for joint action are workshops and seminars, task forces and teams, meetings and committees, and informal agreements. Resource sharing and joint action are frequently used in tandem.

These three types of activities can be employed in various combinations over time to enable program managers to actively manage their environments and fulfill the strategic dimensions of program management. Research on interorganizational coordination has shown that successful cooperative strategies for managing the environment effectively address a common set of interorganizational problems: threats to autonomy, lack of task consensus, and conflicting requirements of coordination (Whetten 1977).

Threats to autonomy. A central dynamic in most organizations is to try to maintain as much independent control over inputs, outputs, and environmental transactions as possible (Thompson 1967). Managers seek to maximize operational autonomy. So if coordination for purposes of program implementation poses a threat to the autonomy of the organizations to be integrated, they will be reluctant to cooperate.

This dynamic can also apply to individual programs; managers responsible for one program may perceive threats to their autonomy from other program managers, whether located in another organization or their own. Thus, interprogram coordination can be an important managerial obstacle. For example, in the Caribbean Agriculture Research and Development Institute, one of the biggest difficulties the institute faced was getting its various program managers to work together. CARDI solved the problem in one case by merging two pro-

grams into a single, integrated one.

Lack of task consensus. Task consensus means agreement on the client groups to be served, the types of services to be offered or goods to be produced, and the means of providing services. Without some minimum level of agreement, cooperation is difficult. Programs designed by external teams frequently make assumptions about task consensus that later prove to have been overoptimistic. Because many of the technologies for development, especially the social ones, are only partially understood or are site-specific, lack of agreement on what to do, for whom, and how is highly likely.

Conflicting requirements. Most development organizations or their subunits are members of more than a single system, and frequently the unit that is the target of coordination is subject to conflicting demands upon it. The most common conflict is between the requirements for participating in lateral coordinated action at the local level and in vertical sectoral hierarchies. This has proved to be a classic problem for primary health care programs that set up district-level teams for coordinated interventions in rural communities. The teams are nominally responsible to the district medical officer, but individual team members report to their functional superiors at the center (see WHO 1988). The tension between the horizontal and vertical memberships hinders effective collaboration with either system.

Managing the Obstacles to Coordination

To implement their programs successfully, program managers must choose strategies for managing the environment that address the three obstacles to coordination: threats to autonomy, lack of task consensus, and conflict between vertical and horizontal linkages. However, the three obstacles are not equally salient in all situations. Several of the variables used to rate environmental uncertainty and hostility, combined with the starting point (locus of initiative) for coordination, provide a way of clarifying which obstacles program managers are likely to confront in varying situations. This clarification helps managers to target their influence activities on the elements critical to the success of their environmental management strategies.

Table 3.2 illustrates how certain environmental features condition the expression of the three coordination obstacles. Depending upon the configuration of features relating to coordination in a given program environment, managers can determine which obstacles will require their attention as they seek to manage the environment through various combinations of information sharing, resource sharing, and joint action.

Table 3.2 The Relationships Between Environmental Features and Obstacles to Coordination

Key Environmental Features	Obstacles to Coordination		
	Threats to Autonomy	Lack of Task Consensus	Conflict btwn. Linkages, Vert/Horiz.
Stakeholder Interests and Operating Modes			
Compatible			
Incompatible	*	*	*
Availability of Resources			
Abundant			*
Scarce	*	*	
Complexity and Diversity of Environmental Linkages			
More Complex		*	*
Less Complex	*		
Locus of Initiative for Coordination			
Hierarchical Superior	*		
Same Level		*	*

Source: Author from IDMC/DPMC (1988) and Whetten (1977)

Compatibility of stakeholder interests and operating modes. An important variable to consider when looking at the characteristics of key stakeholders is the degree to which those whose inputs or actions program managers need to coordinate have compatible interests and operating modes. Here the bases for comparison include the extent to which the entities that are the focus of coordination have shared goals, similar values and norms, complementary modes of managing and operating, compatible technologies, and complementary resource requirements.

High levels of compatibility reduce the chances that the three obstacles will pose problems for coordination. On the other hand, the presence of significant incompatibility makes coordination difficult. Differing goals and operating modes make it likely that coordination will be seen as threatening, and thus task consensus would be hard to achieve. Requirements for coordination among incompatible entities would raise conflicts with their vertical linkages.

Availability of resources. Particularly in developing country settings, the issue of resource availability is critical. Development program managers frequently operate under conditions of resource scarcity relative both to the level of effort implied by their programs' goals and to the needs of their beneficiaries. Scarcity makes organizations cautious about entering into cooperation with others that could place new demands on already limited resources. It raises the stakes of cooperation in that the organization needs a higher "rate of return" on its investment in coordinating activities, given that any resource commitment represents a larger percentage of its pool of available resources than that of better-off organizations. Resource scarcity, and the uncertainty that usually accompanies it, feed the jealousies, "turf battles," and protectiveness that characterize interactions among developing country public sector agencies. These interorganizational dynamics reduce the prospects for agreement on goals and tasks and increase the perception of threats to autonomy.

Donor funding for development programs can partially alleviate resource constraints but can create other problems such as distortion (noted above) and nonsustainable service delivery and production systems. In terms of obstacles to coordination, the injection of donor funds often provokes conflict between horizontal and vertical linkages. This emerges because the donor funding package stresses what the national program has agreed to accomplish with the funds—emphasizing the horizontal coordinating linkages to other organizations around activities and outputs—whereas the vertical linkages to the organization's bureaucratic hierarchy often concentrate upon funding flows and availability. Such conflict can be particularly intense in cases where the government's espoused commitment to donor goals exceeds its actual commitment. This situation can result in a high degree of tension for program units and their staff who are accountable to the donor for accomplishing agreed-upon tasks but whose hierarchical superiors see the program as a pot of money to supplement routine operating expenses rather than to support the achievement of program goals. For example, development investment in Haiti has persistently been plagued by such conflicts (Brinkerhoff 1986b).

Complexity/diversity of environmental linkages. The extent of complex and diverse linkages among potentially cooperating organizations influences the possibilities for coordination. Complex relationships among organizations in the environment reduce the chances of obtaining task consensus because of the difficulties in reaching agreements among large numbers of actors. Since units have many different interconnecting links, it is hard to set something up that avoids a situation where one or more entities feels that coordination is undesirable. Complex and diverse linkages also heighten the probability of conflict between the requirements of coordinating horizontally across units or agencies and the demands imposed vertically by unit/agency hierarchical superiors. There are simply so many threads that some amount of working at "cross

purposes" becomes almost inevitable.

Threats to autonomy, interestingly, are reduced because each potentially coordinating entity has so many other linkages that the addition of one more represents but a small fraction of the total and thus constitutes a relatively minor reduction in freedom of action. Conversely, if environmental linkages are less complex or diverse, threats to autonomy emerge as a more important obstacle to coordination because new linkages could be seen as significantly cutting into operational independence.

Locus of initiative for coordination. The two major alternatives here are that coordination is initiated laterally by the participating organizations and agreed to voluntarily, or that it is initiated by a higher bureaucratic level within the vertical systems of the coordinating organizations. In the first case, coordination emerges in response to a mutually felt need. Because it is initiated voluntarily out of consensus, the demands it places on participating organizations are not likely to be perceived as threats to their autonomy. However, laterally initiated coordination runs the risk of confronting disagreements on the details of task consensus because no mediating entity is present to facilitate resolution of differences. Also, this type of coordination is more likely to suffer conflicts with the participants' vertical linkages, where hierarchical superiors may not be convinced that coordination is worth the costs.

In the second case, where organizational superiors initiate coordination and order their respective units or agencies to cooperate, lack of task consensus is less probable because differences can be worked out during negotiation and design. Horizontal-vertical linkage conflict is also much less likely, given the initiation point for coordination. The possibility of perceived threats to autonomy could increase, though, because the coordinating entities may not be convinced of the need or benefits of collaboration despite the fact that they have been ordered to work together.

Box 3.4 provides an example of the coordination issues that confronted a large rural development program in Africa. The Malawi case shows the impact on coordination of incompatible stakeholder interests and operating modes and of the complexity and diversity of program-environment linkages (see Table 3.2). Especially acute for the National Rural Development Program was the conflict between vertical and horizontal linkages.

Implementing, Monitoring, and Adapting Strategies

Managing the environment does not stop with the analytic steps leading to strategy formulation but also includes applying the strategy option(s) developed, monitoring the results, and adapting to changes over time. Implementing any strategy for managing the environment confronts program managers with

Box 3.4 Managing Coordination in Malawi

In 1968, the government of Malawi initiated an integrated rural development approach to agricultural development, creating four large regional projects that in total targeted about 20 percent of the population. These projects sought to improve the productivity of smallholder agriculture, which accounted for 85 percent of agricultural production. The four projects were distributed over Malawi's three administrative regions and operated independently of the regional agriculture offices. The projects provided agricultural inputs and farm services, with primary attention paid to extension, input supply, marketing, and credit service; secondary emphasis was placed on conservation, watershed management, and reforestation.

The National Rural Development Program (NRDP) was launched in 1978, building on experience with the regional projects. The primary goal of the NRDP was to consolidate their benefits and extend them to smallholders throughout the nation. The NRDP comprised forty to fifty subprojects to be implemented over a period of approximately twenty years. The Ministry of Agriculture (MOA) was designated as the lead agency for the NRDP, as the other sectoral ministries had at that time little regional planning or implementation capacity. Within the MOA, the Department of Agricultural Development had operational responsibility, headed by the Chief Agricultural Development Officer (CADO). The CADO supervised the Agricultural Development Divisions (ADDs, field offices) that administered the NRDP subprojects. Over time, the MOA's oversight role was intended to narrow as other sectoral ministries (e.g., health, public works) decentralized and took over responsibility for portions of the NRDP.

The NRDP, with its nationwide focus, was integrated into normal government operations. Management of the ongoing regional projects, as well as all NRDP subprojects, was incorporated directly into the MOA. This change reduced the autonomy and flexibility that the project managers had previously enjoyed and increased coordination requirements. Effectively coordinating the NRDP was a challenge. Problems arose at three different levels: (1) among the various NRDP implementing ministries (interministerial), (2) within the MOA (intraministerial), and (3) between headquarters and the field.

Interministerial. At the start of the NRDP, the MOA financed and supervised activities in all the sectors where the program operated. The MOA made the initial investments, using its own staff or contracting out to other ministries, and the sectoral agency concerned was to take over operations and maintenance. The MOA had difficulty coordinating the transition from investment to operations because the other ministries were reluctant to assume the recurrent costs, and the MOA had no formal authority over officials in other ministries. Neither the CADO nor collaborating sectoral staff could officially enter into interministerial agreements. Formal agreements required the CADO to move up the MOA hierarchy to the deputy permanent secretary and persuade him to deal with the secretary at the other ministries. Thus, the CADO used informal negotiations and bargaining to coordinate NRDP activities involving shared resources.

Over time, as other ministries developed field capacity, the MOA began to focus specifically on agricultural production, and the implementation coordina-

tion problems diminished as the need to share resources declined. However, the need for coordination shifted from implementation to planning. The CADO no longer had to worry about ensuring that facilities were adequately maintained but needed to see that interministerial planning and budgeting processes led to coordinated sectoral investments in light of national rather than ministerial objectives.

Intraministerial. The MOA's Department of Agricultural Development was nominally responsible for the NRDP, but the program depended upon staff from other units of equivalent rank within the ministry. Personnel detailed to the NRDP remained employees of their respective divisions. Since the CADO was of the same rank as the other department heads, coordinating staff of collaborating units required negotiating skills and the goodwill of the other department heads. The CADO was fortunate in that some individuals who headed other departments were amenable, but time pressures made it difficult to get together often enough to ensure effective coordination. With directors who were less cooperative, coordination problems were even more difficult.

The time and staff costs for coordination were high, and the tendency was to postpone consultations until situations became so serious that conflicts were unavoidable. The NRDP experimented with various procedural solutions to lower the costs of coordination by increasing information sharing: posting the schedule of events for collaborating units in a conspicuous place; distributing a newsletter noting future plans and programs; and holding more regular, shorter meetings between staff.

Coordination at the Field Level. Prior to NRDP, two types of field organizations existed. The four regional projects had been administered by separate project units reporting to the permanent secretary in the MOA through the ministry's planning unit. The nonproject agricultural regions were administered by three regional agricultural officers, responsible to the ministry's Extension and Training Department.

Under the NRDP, a major reorganization took place in an effort to make the field-level system a more national undertaking. Malawi was divided into about 180 Extension Planning Areas (EPAs) containing a total of 6,000 to 9,000 farm families. The areas were ecologically and agriculturally similar and had identifiable topographical boundaries. The EPAs were grouped into about forty Development Areas (DAs), which were to be the primary units for development projects. The DAs were aggregated into eight ADDs, which took over the functions of the three Regional Agricultural Offices and some project functions that had been exercised at headquarters. While the DAs were responsible for project management, the ADDs were responsible for program management, with each ADD having its own management unit for this purpose. This allocation of responsibilities sought to decentralize the MOA by placing program management responsibility at the ADD level and project management at the DA level.

Despite the decentralization of program responsibilities to the ADDs, involvement of MOA headquarters staff in day-to-day activities of field offices remained substantial. In effect, the new structure added to the coordination tasks

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of program managers rather than reducing them. Further adding to coordination problems was the fact that the reorganization applied only to that part of the MOA directly concerned with NRDP. The departments of Animal Health and Husbandry and of Agricultural Research continued to work through the old three regional field offices rather than the ADDs. As a result, at the field level the ADDs had difficulty coordinating multidisciplinary teams because lines of responsibility were separate. Similar problems occurred at the DA and EPA levels, where NRDP extension and forestry activities are managed through the original regional offices, where separate extension services link to the Ministry of Natural Resources. Technical specialists seconded to the ADDs responded primarily to their home offices at headquarters (where rewards and personnel incentives came from), which strongly limited the field managers' abilities to obtain performance. In the case of the NRDP's animal health activities, field-level coordination was particularly problematic because the chief veterinary officer was not interested in working with the CADO and actively resisted harmonizing his own goals with those of the NRDP.

Malawi's NRDP clearly illustrates several of the obstacles to coordination. The reorganization of the program's structure increased the level of conflict between the NRDP's vertical and horizontal linkages, leaving managers and technical staff caught between two masters. Managers had to supervise staff over whom they had little authority, and staff, who looked to their central-level home offices for rewards, saw the NRDP as impinging on their operational autonomy. The NRDP also shows how important the ability to bargain, negotiate, and use informal influence is for program managers to be successful in getting performance.

Source: Arnold and Bryant (1983)

the need to develop influencing skills. Rondinelli (1983b: 124) states that effective development management must pay attention to "processes of reciprocal exchange, compromise, the trading of promises and threats, formal and informal bargaining and negotiation, mediation, and coalition-building . . . [to cope] with the complexity and uncertainty of development problems." What options do program managers have regarding influence? What methods are there to choose from? Influence can be thought of as falling into two main categories: persuasion and exchange. Though the two overlap somewhat, the distinction is that exchange contains reciprocity between the parties involved—some type of quid pro quo—whereas persuasion does not. The overlap stems from the fact that persuasion is often necessary to get to exchange. An additional dimension adds clarity to examining influence methods: the extent to which the parties involved have a choice in complying. With some forms of persuasion and exchange, participants have a high degree of choice in compliance; with other forms the degree of choice is much lower. Table 3.3 presents an array of influence methods program managers can use in managing their environments.

Several points are important to make regarding the table. First, the behav-

ioral components of coordination discussed above—information sharing, resource sharing, and joint action—are well represented among the influence methods. Thus, coordination is very much a matter of persuasion and exchange. Second, more of the influence methods fall into the range where participants have higher degrees of choice in compliance. The implication here is that program managers must rely more on their entrepreneurial and interpersonal skills to gain compliance than on their positional authority and ability to exercise control. And, as Honadle and Cooper (1989: 1535) point out, "lack of control does not mean lack of power. Indeed, some of the most powerful, effective people are those who are adept at influencing others." Third, there is a dynamic dimension to the use of influence methods in that, initially through persuasion and later through exchange, managers can move stakeholders who were in the constraints-to-appreciate category into the influence category.

This latter point highlights the importance of continuing to scan and monitor the environment during program implementation. Looking out is not simply a one-shot endeavor but a continuous one. To remain proactive, program managers must know the results of their efforts at influence and track what is changing in the environment. As noted above, this is all the more critical in uncertain and complex settings. Later chapters will touch upon the structural and process dimensions of looking out.

Table 3.3 Influence Methods for Managing the Environment

Degree of Choice in Compliance	Influence Methods: Persuasion	Influence Methods: Exchange
Higher	Information Dissemination Public Relations Education Marketing & Lobbying Informal Consultation and Advice Demand Mobilization	Positive Incentives and Inducements Coalition Building Reciprocal Agreements Reinforcement and Behavior Shaping Mediation of Rewards
Lower	Psychological Manipulation Informal Negotiation and Mutual Consent Formal Consultation	Formal Bargaining and Negotiation Threats and Sanctions Contracts

Source: Author from Brinkerhoff and Klauss (1985), Lindenberg and Crosby (1981), and Rondinelli (1976)

THE IMPORTANCE OF POLICIES

Policies, as noted earlier, are a significant subset of the environmental factors that have a direct impact on programs, both their implementation and the prospects for sustaining the goods and services they produce, and are thus part of the proximate environment. One of the characteristics of programs, discussed in Chapter 2, is that they are mechanisms for translating new policy decisions into practice. So, a central focus of program design and content is operationalizing policy choices. However, the importance of policies as key factors in the environment derives from their impact upon the behavior and motivations of program stakeholders. Here we concentrate on policy's role in shaping program environments. Chapter 4 is more concerned with programs as mechanisms to implement policy.

Policies embody sets of cues that send signals to people to do things or behave in one way rather than another. Ilchman and Uphoff (1983: 30-31) define policies in the following way:

> Public policies are the use by a regime of its resources [including authority] to intervene in the accustomed behavior of some citizens to produce more or less of that behavior, whether the behavior sought is more savings and investment, less bribery of public officials, more conservation of fossil fuels, or less fertility, and so on. . . . These public resources induce or deter, increase or decrease some behaviors thought desirable or undesirable. They expand or limit options for people to respond to in their own pursuit of purposes.

This definition highlights the key role policies play in shaping incentives. For example, in the case of the enterprise development program mentioned at the beginning of the chapter, government policies on commercial licensing, importation of raw materials, export of finished goods, banking and finance, market regulation, and employment are significant because the policy context they create influences the responses of small-scale entrepreneurs to what the program has to offer. If the program seeks to increase the working capital of microenterprises to help them expand production but lending policies discriminate against those with little collateral, then small entrepreneurs have few incentives to apply for loans.

Two other characteristics of programs make this incentives framework particularly central to program management. First, because programs are linked to existing organizations, program managers must cope with the policies that influence the organizational actors they confront: the subordinates they supervise, the other program managers they interact with, the superiors they report to, and the staff of other organizations at all levels whose cooperation and collaboration are necessary to achieve program objectives. Second, because programs are implemented over lengthy time periods, managers have to maintain a fit between program activities and shifts in policy—evolutionary, revolutionary, or both—that change the incentives framework.

Related to the first characteristic, administrative, personnel, and budgeting policies are prime contributors to the incentive framework. Development projects, as "privileged particles of the development process" (Hirschman 1967:1), have often dealt with these policies by insulating themselves via the establishment of project implementation units (PIUs), semi-independent entities loosely attached to ministries or agencies created as part of the projects to manage them. PIUs operate with artificially supported incentives. Since they are endowed with more resources than the surrounding organizational setting and are less subject to standard government regulations and procedures, they can offer better salaries, vehicles, per diems, and so on. The PIU approach has not led to the creation of long-term organizational capacity, because once the flow of external resources ceases, the incentives that accompanied them no longer exist (Honadle and VanSant 1985). In some cases, PIUs have contributed to weakening capacity in host government agencies by siphoning off the "best and the brightest" to work in the PIUs, luring workers with attractive salaries and better working conditions. National programs, however, must cope with the incentives that regular government policies create, as Box 3.5 illustrates.

The second characteristic—that programs continue over a relatively long time period—means program managers must align their programs with evolving incentives to ensure the ongoing cooperation and appropriate responses of both organizational collaborators and program clients. Unless the program builds and maintains a fit with people's incentives over the long term, prospects for sustainability will be dim.

For example, China's agricultural reform program has sought to increase the productivity and production levels of farmers. Among the program's aims is to achieve and maintain food self-sufficiency in grains, a target that was reached in 1984 but turned out to be a peak rather than a steady state. Among the reasons for the post-1984 downturn in production and the later crisis of the 1985-1988 period were the incentives for farmers created by government policies in two key areas: privatization and marketing. Liberalized regulations on privatization provided farmers with (a) long-term leases to land they had previously tilled as tenants and (b) the authorization to set aside a certain amount of their acreage for growing whatever crops they wanted. On the marketing side, new policies abolished the government monopoly as sole purchaser and distributor of farm production. Markets for staples were stratified, with a certain amount of production purchased by the government at prenegotiated contract prices and the rest sold on an open market with prices set by supply and demand. Strong demand for high-value specialty crops, coupled with the new rules allowing discretionary use of a portion of landholdings, led farmers to move out of grain production and into high-value crops that increased their incomes.

The uncertainty around land tenure—leases instead of outright ownership—resulted in farmers being unwilling to make the investment needed to improve productivity on lands left in grains to make up for the shifts in crop

Box 3.5 Shifting from Project to Program Management in Pakistan

To facilitate implementation of the World Bank's Second Primary Education Project, a PIU was set up in Hyderabad. The unit, headed by a dynamic woman with strong political connections, managed project activities in eight of Sind Province's sixteen districts. The PIU and its mode of operations injected new conflicts and jealousies into provincial education sector operations. The project succeeded in incorporating curriculum development into the PIU's functions in direct competition with the existing educational structure in Sind. To carry out this expropriated function, it created the position of pedagogical counselors to work with schoolteachers. However, because the PIU operated in only half the province's districts, this action created a dual system for curriculum development and a significant amount of conflict between the PIU and the provincial authorities.

In addition, the PIU provided its learning coordinators with transport—motorcycles for the men and vehicles for the women. This act created intense jealousies among the "have not" coordinators in the eight districts not covered by the PIU, who complained that they, too, should be allocated transport. A significant amount of management attention was required to deal with personnel conflicts instead of issues of educational substance.

Recently, the Bank shifted to supporting a borrower country program mode, financing a provincewide investment program in Sind across all sixteen districts; this program is integrated into the provincial educational system. Program managers have to cope with the administrative problems created by the PIU from the earlier project as well as deal with implementing the new program in the context of the regular incentives framework. While using a PIU can bypass institutional weaknesses to achieve performance in the short term, this practice often sows the seeds of future management problems in the long term. A focus on program management highlights the need to operate effectively in the national policy setting to achieve sustainability.

Source: World Bank (1988b)

patterns. The availability of alternative markets made it less attractive to remain solely in grain production. So the Chinese agricultural reform program has run into some difficult incentive problems as a result of the larger policy environment. Sustaining the benefits of liberalization will depend upon a better fit between program targets and the policy setting, thereby resolving some of the tensions between the incentive framework for farmers and the aims of the reform package.

Assessing Policy Issues

What can program managers do to deal with the policies that affect their programs? The answer lies in applying the steps for general environmental

Box 3.6 The Policy Context of Urban Poverty Programs in Mexico

Although the majority of the poor in the developing world are rural, an increasing proportion of the poor are urban or periurban. The policy issues involved focus upon the balance among the needs of the rural poor, those of the urban poor, the requirements for economic growth, and the constraints of austerity. Key questions include the following. Can relatively cheap urban food be sustained, and if so at whose expense? What kind of tax systems and incentives will be needed to pay for urban services? How can minimum wages be set so as to simultaneously protect the poor and contain inflation? Who receives the benefits of physical infrastructure and who bears the costs? Where in metropolitan areas should housing for the poor be located? What is the impact of rent control on the poor? What type and scale of industrial development generates the best mix of jobs for low-income workers? Can open admissions and waiving of tuition be maintained in education systems serving the urban poor?

Donor-supported urban poverty programs in Mexico City have been wrestling with these policy issues, which extend beyond the traditional "sites and services" orientation that characterizes many narrowly focused projects in the urban sector. Not all of these policy issues will be equally salient for all urban programs. For a given program, some of the issues will become part of the program itself, and others will fall into the program's environment.

Source: Annis (1988)

assessment discussed in this chapter to the specific case of policy analysis. These steps provide three pieces that combine to answer this question. The first is for program managers to determine which policies are important. The second is to identify what can be done about those that are important. The third is to track the impact of the policy setting on the programs over time, both to increase understanding of the interaction among policies, programs, and incentives and to be proactive in influencing the policy setting in favor of program objectives and activities.

Assessing which policy issues are relevant for a given program can be a complex task, often with many cross-sectoral linkages. Relevant policies depend upon the particular content of the program. Box 3.6 provides an example of the kinds of policy-related questions asked by program designers and managers in relation to urban poverty programs in Mexico City.

Once the relevant set of policies has been identified, program managers must decide what to do about them. This means looking at which ones need to be appreciated as constraints, which ones could potentially be influenced, and which might be included within the program as part of its reform agenda. Stakeholder analysis is particularly important here to clarify winners and losers, supporters and opponents. Stakeholder interests and power bases will have an impact on how easy or difficult it may be for program managers to influence

Box 3.7 A Typology of Policy Reforms and Influences on Policymaking

The USAID-supported Employment and Enterprise Policy Analysis Project sponsored a series of workshops on policy reforms that examined experience with devaluation in Ghana, structural adjustment in Korea, agrarian reform in the Philippines, health care in Mali, rice pricing policy in Indonesia, decentralization in Kenya, planning in Colombia, and planning in Argentina. Based on an analysis of that experience, several key findings emerged as critical to assessing policy issues.

Policymakers are influenced by four major factors in making decisions that condition program managers' policy settings. These four are: (1) the persuasiveness of technical analysis, (2) the power of bureaucratic interactions, (3) the significance of maintaining the existing regime in power, and (4) the impact of international leverage. The salience of these factors for decisionmaking varies by type of policy reform: macroeconomic, sectoral, or organizational. Macroeconomic and some sectoral reforms tend to enter the decisionmaking arena as pressing problems whose solutions are sought under conditions of perceived crisis. In contrast, most sectoral and/or organizational reforms are placed on decisionmakers' agendas as chosen problems whose solutions are sought under conditions of "business as usual."

Four situations emerge:

1. When pressing reforms concern macroeconomic issues, policymakers are most concerned about regime maintenance. Technical analysis and international leverage are important but remain subordinate to political survival.
2. When pressing reforms deal with sectoral issues, concerns about regime maintenance are again the most salient, with technical input and bureaucratic motivation secondary to policy choices.
3. When chosen reforms address sectoral issues, policymakers are most concerned with bureaucratic politics. Technical analysis is important but not decisive.
4. When chosen reforms focus on organizational issues, policymaking tends to be dominated by bureaucratic motivations, with secondary concern for regime maintenance.

The task of policy implementation and program management varies significantly depending upon the requirements of the reform initiative. Policy reforms can be classified as relatively self-implementing (for example, "stroke-of-the-pen" changes in exchange rates) versus those requiring large amounts of effort to attain compliance and response. Three findings regarding sustainability are noted:

1. When policy reforms are of the self-implementing variety, sustainability is determined by the degree of consensus among policymakers about the wisdom of the reform and the strength of the reaction by opponents. Stability of the government in place and the power of opponents are key.
2. In the case of nonautomatic reforms, sustainability is determined by the strength of opponents' reactions and the degree of responsiveness and compli-

ance by bureaucratic actors responsible for implementation. The patterns of bureaucratic politics and the interpenetration of politics, societal power, and public administration are important.

3. When organizational reforms are undertaken, sustainability is conditioned by the reaction of bureaucratic actors. Implementation is affected by internal bureaucratic politics and the extent of political support for change.

Source: Grindle and Thomas (1987)

policymakers in favor of establishing new policies and/or reforming existing ones that could have a positive impact on program outcomes and sustainability (Migdal 1977, Grindle and Thomas 1989). Box 3.7 elaborates some of the factors that condition policymakers' responses and provides some parameters for program managers' assessments and strategies. The influence methods presented in Table 3.3 can be used to implement the strategies developed.

Success in managing program policy contexts depends not simply on identifying which policies are important and negotiating with key stakeholders on those policies, but also on developing systematic knowledge about "which public resources in which combinations directed at which aggregates of people will induce what degrees of modified behavior" (Ilchman and Uphoff 1983: 31). This knowledge serves to help program managers modify their strategies and to feed into the design of future programs in both cases to maximize the chances of sustainability.

Collecting and analyzing information on the impact of policies on program collaborators and beneficiaries has become increasingly salient with the prevalence of structural and sectoral adjustment programs. Managers are called upon to implement their programs subject to a web of policy conditionalities that require actions on the part of many organizations and, increasingly, as integral components of policy reform packages (Cohen, Grindle, and Walker 1985, Lindenberg 1989, White 1989, White 1990). Managing programs in a context of radical policy reform represents one of the most challenging types of situations program managers can face (see Balogun and Mutahaba 1989). Box 3.8 provides an example of such a case from Southern Africa.

Implicit in Moore's analysis of the Zambia reform experience is the assumption that better environmental assessment contributes to more successful reform. It could be legitimately asked, then, Would better analysis have made a difference? Our management perspective suggests that the answer is a qualified yes; if the information is used as input to negotiating and bargaining with key stakeholders to arrive at doable, second-best solutions, then the chances of success would improve. As a final note, the Zambia case also sheds some light on the limits of environmental influence strategies. For an individual development

program manager operating in Zambia during the 1980s, where the policy environment was so hostile and uncertain, a defensive posture rather than bureaucratic entrepreneurship would have been the recommended management strategy.

GUIDELINES FOR MANAGING THE ENVIRONMENT

This chapter has examined in some detail the elements of looking outward at the external environment as a major piece of the program manager's task. In this last section, we summarize the preceding discussion in the form of guidance for managers confronting program contexts.

What to Look Outward At

- Based on an initial specification of goals and benefits, both short- and long-term, conduct a rapid initial reconnaissance to prioritize the relevant factors in the program's external environment (economic, sociopolitical, technical, cultural, etc.) for management attention. Do not try to examine everything.
- Conduct a stakeholder analysis. See Table 3.1. This identifies who is important to the success and ultimate sustainability of the program in terms of (a) providing resources to the program (tangible, such as funding or approvals, and/or intangible, such as legitimacy or knowledge) or (b) obtaining something from the program (e.g., using the goods and services produced, achieving an agency mandate). Look for winners and losers and others with an interest in the program.
- Pay special attention to policies that influence the program's activities and stakeholders. Recognize that policies are important sources of cues and incentives for behaviors and that these will change over the life of the program. Identify and monitor key policies.

External Constraints and Opportunities

- Be entrepreneurial. Maintain an orientation toward taking advantage of opportunities as well as reacting to constraints. A large piece of development is preventing bottlenecks and sidestepping constraints; development programs need to be part of the solutions, not add to the problems.
- Rank program stakeholders and relevant policies into two groups: those the manager can influence and those that must be appreciated as constraints. Monitor these periodically, looking in particular for opportuni-

Box 3.8 Policy Reform and Program Management in Zambia

Zambia's economic policy reform efforts can be traced back to 1977, when President Kaunda publicly emphasized the need to cut back on government expenditures and to find new sources of foreign exchange. In 1979, Zambia negotiated a standby agreement with the IMF. Inside of a four-year period (1979-1982) the country absorbed significant reforms, most oriented toward reducing demand, government expenditures (mainly subsidies), and centralized government controls. These macroeconomic policy changes, however, included little attention to the institutional apparatus of government or Zambian society.

After 1982, the speed and intensity of these reforms increasingly threatened political consensus. The period from 1983 to 1985 witnessed more efforts directed at structural change, following renegotiations with the IMF and the World Bank. These reforms aimed at decontrolling domestic prices, reducing food and fertilizer subsidies, opening marketing and fertilizer distribution to private traders, adjusting agricultural producer prices, relaxing interest rate ceilings, and introducing a more flexible exchange rate policy. In addition, the reform effort attacked the budget deficit directly by initiating a freeze on government salaries. However, economic conditions in Zambia continued to deteriorate and increasing social pressure emerged to "reform the reforms."

The Zambian government's response was to introduce in 1985 even more liberalizing changes in economic policy, such as a foreign exchange "auction" and the awarding of more freedom to parastatals. Attention to implementing and sustaining existing reforms had taken a back seat to the introduction of new initiatives. By early 1987, further declines in the value of Zambia's currency threatened future stabilization efforts. The government, unwilling to confront strong national vested interests, reintroduced interest rate controls. In addition, the further design and implementation of tariff, parastatal, and civil service reform came to a halt along with efforts to control budget deficits. Public outcry and the government's perception of the political necessity to back off brought policy reform to a virtual standstill. Finally, on May 1, 1987, Zambia announced a suspension of its structural adjustment activities, rejecting both IMF and World Bank sets of conditionalities and the accompanying action programs.

What had happened? Several factors were operating in the Zambia case, a number of which relate directly to assessing and managing the environment. From the start, the planning of the reforms paid insufficient attention to implementation and the institutional weaknesses that limited the government's capacity to carry out reform mandates, even where political will to do so may have existed. Further, the total amount of "pain" contained in the reforms remained disguised at the start because the government used its copper revenues to maintain services and social welfare at artificially high levels. When world copper prices dropped, the government resorted to borrowing to make up the difference. Zambia had experienced rapid growth in the early years of independence mainly through its copper exports. With the softening of the world copper market, the country found itself in a downward economic spiral, which continues to the present day. Thus, unlike a number of other African countries, Zambia did not undergo an "economic adjustment" prior to embarking upon the program of

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structural reforms.

The initial environmental assessment, then, was weak in that it made faulty assumptions about the level of resources the government could realistically expect to rely upon in the future. As a result, the degree of environmental uncertainty and hostility was grossly underestimated. This was not a particularly propitious setting in which to experiment with highly politicizing policy reforms, introducing changes that exacerbated existing economic, sociopolitical, and regional cleavages. Managing of the environment during policy implementation was also weak. Insufficient orientation to key stakeholders meant that winners and losers were not clearly identified, and the impacts of the policy reforms on various groups were not sufficiently tracked and analyzed to provide a basis for modifying the scope and pace of change during implementation to increase the chances of success.

Several lessons emerge from Zambia's experience with policy reform. It is evident that setting an agreed-upon reform agenda and maintaining an ongoing consensus on the content of that agenda are critical starting points for success. Further, developing national institutional capacity for strategic, externally oriented management and policy analysis is critical for effective implementation. Other causes for the failure of the Zambian reform initiative include focusing on administrative weaknesses within single organizations when policy reforms, by their very nature, extend across a network of organizations; relying excessively on project implementation units, operating with limited links to the national bureaucratic setting, to carry out reforms; and overrelying on the deductive logic of the reforms, rather than learning from experience (inductively) and adjusting reforms through compromise based on what worked. The Zambian government had little opportunity to demonstrate any visible signs of success to its citizens, success that could have contributed to rebuilding and maintaining acceptance of, and commitment to, the reform process.

Zambia's policy reform programs were perhaps the most ambitious, far-reaching, and precipitous of any country in the region, and it is not clear whether even with the best of policy design and implementation the Zambian structural adjustment package would have been successful. Failures by government and donor participants throughout the reform period to appreciate, influence, and adapt to the reform package's environment and the policy setting it created contributed to the reform's downfall. As a result, the reform went too far too fast, both in terms of the donor and national government's capacity to coordinate the programs and their impacts and of the capacity of the Zambian polity and economy to absorb such massive change.

Source: Moore (1989)

ties to shift from the appreciate category to the influence category.

- Assess the facilitative conditions, those minimum features of the program's action context that are needed to proceed with program design, redesign, or implementation. If these initial conditions are sufficiently positive, move beyond a rapid reconnaissance to rate the environment in terms of uncertainty and hostility. Highly uncertain and hostile set-

tings will require much more managerial time and attention than relatively certain and benign ones. Managers may need to find ways to buffer their programs from high levels of turbulence, especially in the early stages of implementation.

Managing the Environment

- Develop a management strategy that responds to the need to achieve short-term performance and also long-term sustainability. Early successes build stakeholder confidence and commitment, which is critical for sustaining the program over time.
- Since program managers in the public sector must work with a network of actors across several agencies and can rarely operate independently, select a cooperative strategy that incorporates key actors whose inputs and resources are critical to achieve success. Be clear about what cooperation and coordination mean for the program; is it information sharing, resource sharing, joint action, or a mix?
- Recognize that effective cooperation and coordination must deal with three obstacles. First, collaborators may experience cooperation as threatening to their operational autonomy. Second, not everyone involved will agree on what should be done and how. Third, there may be conflicts between the requirements for horizontal cooperation among collaborating agencies and the hierarchical demands of individual agencies' reporting relations that extend vertically.
- Four environmental features influence whether or not the obstacles are present and how strong they are: the compatibility of collaborators' interests and operations, the availability of resources, the complexity and number of other linkages to the environment besides those of the program, and whether the impetus for cooperation comes from a hierarchical superior or is entered into voluntarily. Adjust the program's approach to coordination in light of these features. See Table 3.2.
- Implement the strategy using a mix of persuasion and exchange methods to influence key collaborators and stakeholders. See Table 3.3. Be alert to new opportunities for incorporating new stakeholders to broaden and/or deepen support to the program. Periodically conduct a benefits assessment exercise.
- Accept the fact that developing country environments are relatively turbulent. Programs extend over many years, the environment will evolve, key stakeholders will change, their interests will change, policies will be modified, resource levels will move up and down, etc. Do not get caught by surprise; keep looking out on a regular basis. Balance attention to internal operations with the outward-looking orientation that will position the program for achieving results, impact, and sustainability.

NOTES

1. These categories can be found in most basic manuals on project planning; see, for example, Little and Mirrlees (1969) or Goodman and Love (1980). Moris (1981) uses them in his treatment of managing rural development, as does Austin (1990) regarding strategic planning for private sector management in developing countries.

2. It is important to stress that the goals and activities specified are an *initial* elaboration. The underlying premise is that iterative planning and implementation are crucial to program management, where the capacity for adaptation to changes in the environment over time is strongly linked to success. Managers should recognize that the initial set of goals and activities will evolve during the life of the program rather than remain fixed. See Brinkerhoff and Ingle (1989) and Chapter 4.

3. This series of questions derives from Lindenberg and Crosby (1981).

4. There are many treatises on these techniques from which interested readers may learn more. Two well-known texts are Gittinger (1982) and Little and Mirrlees (1969). A useful hands-on treatment in manual form can be found in Delp et al. (1977). An interesting example of benefit–cost analysis is USAID's study of PVO projects on the development of small-scale enterprise; see Kilby and D'Zmura (1985). See also Box 9.1 in the last chapter of this book.

5. See the literature on sustainable development, for example, Redclift (1987) and Tisdell (1988). See also efforts to assess the benefits and costs of particular sectoral interventions, for example, agricultural research (Schuh and Tollini 1979), technical assistance in agriculture (Wennergren and Whitaker 1977), and education and health (Jimenez 1987). The Farming Systems Research and Development Approach, supported by USAID, represents a systematic effort to analyze agricultural sector innovations; see the University of Florida at Gainesville's bibliographies (Farming Systems Support Project 1984, 1985, 1986).

6. The perspective on the environment advanced here is inspired by, but differs from, that of Smith, Lethem, and Thoolen (1981), who see the managerial context in the form of a continuum that stretches from control, through influence, to appreciation. We argue that managers do not face a continuum but a choice: to manage (by influence) or to seek (ultimately illusory) control (Stout 1980, Kotter 1985). Selecting control is detrimental to performance. The author is indebted to Jerry Silverman for clarifying his thinking on this point.

7. Incentives play a central role in service delivery and program sustainability in all sectors. If key actors, whether service providers, consumers, or funders, do not perceive long-term incentives to behave in ways that further program goals, then sustainability will not be achievable. Incentives can be examined at various levels; for example, the IMF focuses on macrolevel economic and fiscal incentives' relationships to sustainability ("get the prices right") in its structural adjustment packages. The World Bank's sector adjustment loans look at economic incentives but also include more attention to institutional incentives ("get the organizations right"). An interesting study of the role of incentives in the maintenance of rural infrastructure that examines the interplay among various types of incentives and how they can be structured is found in Ostrom, Schroeder, and Wynne (1989).

Program managers need to look at how the transactions their programs enter into with stakeholders provide incentives for certain reactions and behaviors over oth-

ers (see Heaver 1982, Heaver and Israel 1986). One way of thinking about this is to distinguish between incentives for external and internal stakeholders. Programs need ways of fostering the kinds of behaviors on the part of collaborators and beneficiaries that lead to effective service delivery—in the Egypt example, a new curriculum installed and functioning in schools. They also need an internal strategy for motivating and rewarding staff to pursue program goals. At this internal level, managers face the nitty-gritty of personnel management. Such a strategy, for example, could include a mix of financial remuneration, professional prestige, bureaucratic advancement, and so on. The strategy adopted will influence program structures and processes, e.g., reporting relationships, performance appraisal, promotion paths, etc. Chapter 7 examines these and other human resource issues.

8. This feature of development management has been the focus of much of the work of David Korten, Norman Uphoff, and others concerned with the role of participation in project and program management. See Korten (1980, 1984), Korten and Alfonso (1983), Korten and Uphoff (1981), and Uphoff (1985). For an empirical analysis of the importance of beneficiary participation, see Morss et al. (1976).

9. Independent strategies are most appropriate for the private sector, and indeed the bulk of the literature on interactions with the environment and strategic choice addresses the private firm. See, for example, Andrews (1987) or Porter (1980, 1985). There is, however, a growing literature on public sector strategic management; see, for example, Ring and Perry (1985), Bryson (1988), McCaffery (1989), or Gage and Mandell (1990).

4

Deciding What to Do: Program Design and Planning

Program design deals with incorporating the results of looking out into the content of the program—its goals, strategies, outputs, activities, and resources. Design brings a subset of the external program context inside the program framework in the form of problems to be solved or needs to be fulfilled, defines a solution, and establishes some intentions regarding what will be different in the future as the program carries out its activities and produces results. As noted in previous chapters, the program design task is not one that takes place only before a new program is initiated. The dynamic and changing environments in which development programs operate require periodic program redesign to maintain their fit as circumstances shift and evolve and as learning takes place. Program design and redesign are very similar, and the discussion in this chapter applies to both. When the text refers to design, both design and redesign are meant.

Program managers have a double interest in program design/redesign and planning. First, they look at the content of the program's design in terms of its contribution and appropriateness to addressing a current or emergent development problem or fulfilling an important need for one or more beneficiary groups. Second, they look at program design in terms of its implications for implementation. From a management perspective, then, looking in at program design and planning has both a substantive dimension and a process dimension. This chapter examines these dimensions, beginning with the former. It then turns to the interplay between design, planning, and implementation, with a focus on long-term sustainability. The chapter ends with guidelines for program design and planning.

DESIGNING WHAT TO DO: PROGRAM SUBSTANCE

Managers have several ways they can contribute to and shape the substance of the programs they manage. Indeed, the discussion of program management in Chapter 2 identifies contributing to the development content of program design as one of the five key functions of effective program management. There are two action arenas where program managers have opportunities to affect program content (White 1987: 25).

First, as part of their strategies for managing the environment, examined in Chapter 3, managers can seek to influence the policymakers whose decisions circumscribe the range, scope, and targets of program goals (see also Cohen, Grindle, and Walker 1985). Actions in this arena most directly affect the initial elaboration of program mandates, or their redefinition in the case of ongoing programs. The outward-looking information collection on stakeholders, beneficiaries, and external conditions contributes to managers' abilities to influence policymakers. This is the case because in developing countries policymakers often rely on program managers to inform them about sector needs, actions and results to date, development status, and so on in the absence of other sources of information on policy implementation and impact. This information is fed into the policymaking process. By being selective, emphasizing one problem or set of needs over another, managers have the potential to guide their hierarchical superiors' policy choices.[1]

Second, program managers can affect program content through the translation of overall program goals into specific operational objectives and activities, targets, and implementation strategies. A characteristic of programs is that they subsume a wide variety of production and service delivery activities under a general mandate. However, program mandates tend toward the ambiguous and the vague, whether expressed in legislation, organizational mission statements, or program documents. The lack of specification leaves program managers with significant discretion in determining what their programs will actually focus upon and how they will be carried out.

This discretionary latitude means that the development goods and services clients receive are in many ways as dependent upon the decisions of program managers and their staff as upon those of policymakers.[2] Managerial discretion in the particulars of program design gives program managers direct impact on development outcomes and sustained beneficiary well-being. Along with this discretion, though, goes an important responsibility; whether development takes place or not as a result of program interventions relates directly to what program managers do, in addition, of course, to the impact of external factors and events.

Program Design as the Result of Strategic Choice

The problems, proposed solutions, and intended outcomes that constitute program substance derive from the overarching strategy of a program's host

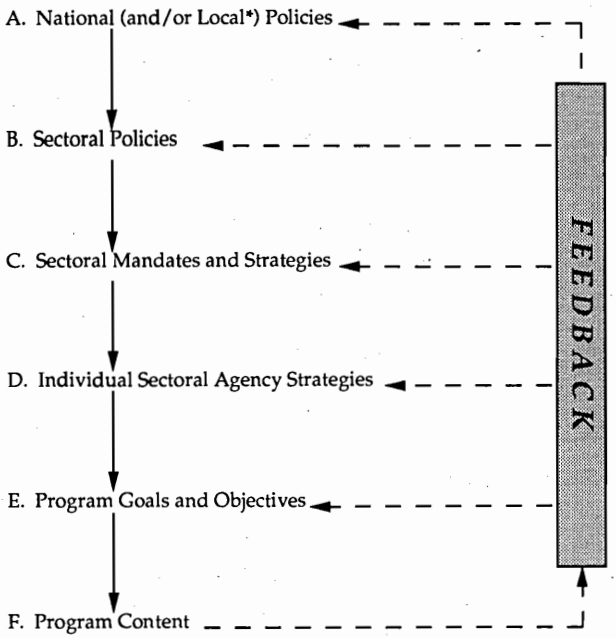
organization(s). The strategy (and mission) of the organization supplies the long-term vision, and a set of programs fits within the strategy to realize it over time. Where does the strategy come from? The answer takes us back to the distinction made in Chapter 3 about the two ways policies are important to programs: (a) policies as what programs implement and (b) policies as one of the environmental factors that constrain program implementation. Central here is the former; national policies, broken down into sectoral policies and translated into sectoral mandates, are among the main sources of impetus for a given development organization's strategy. Individual programs emerge from the choices made regarding what is needed to carry out the strategy. It should be noted that in decentralized contexts, the starting point for translating policies into program content can also be local policies that feed up to the national level, or a mix of local and national. Figure 4.1 illustrates the flow from national and/or local policies to program content.

As noted above, there are two arenas in which program managers act to contribute to program content. In the figure, the first arena consists of national and/or local plus sectoral policies. The second is made up of sectoral mandates and strategies, individual sectoral agency strategies, program goals and objectives, and program content. The focus of the discussion of program design as the result of strategic choice is the second arena. Let us examine this arena in more detail.

What does a strategy consist of? In essence, strategy can be thought of as the way a nation, sector, or individual organization relates to its environment to accomplish its intended goals. Strategy development can be conducted at varying levels of sophistication, or as Korten (1984: 343) says, "levels of strategic competence." The differences in qualitative competence refer to how planners and managers conceive of responding to the current and future environment. Unsophisticated approaches view strategy as deciding how to respond to existing opportunities or those forecast on the basis of extrapolation of current practice. More sophisticated approaches see strategy as moving beyond simply responding to present or projected opportunities to creating new opportunities that would not otherwise exist. The notion here is of strategy as the deliberate creation of a desired and desirable future (Korten 1984: 344).

Whether strategy is conceived of as responding to or actively creating the future, or some of both, its basic elements at the national, sectoral, or individual organization levels comprise the answers to three questions. First, what to do; that is, what development objectives to target and what goods and services to produce? Second, who to do it for/with; that is, who are the client and beneficiary groups? Third, how to do it; that is, what sets of activities to undertake using which technologies? The difference among the levels has to do with the scale, specificity, and amount of detail in the answers. National strategy will be more broadly defined, general, and encompassing than sectoral strategy, which elaborates one piece of the national-level strategy (see Johnston and Clark 1982). In turn, individual agency strategy details one slice of sectoral strategy, which translates operationally into the agency's programs. The link to policies becomes clear in that, in varying proportions depending upon the particular sit-

Figure 4.1 Flow Diagram Illustrating the Translation of National Policies into Program Content

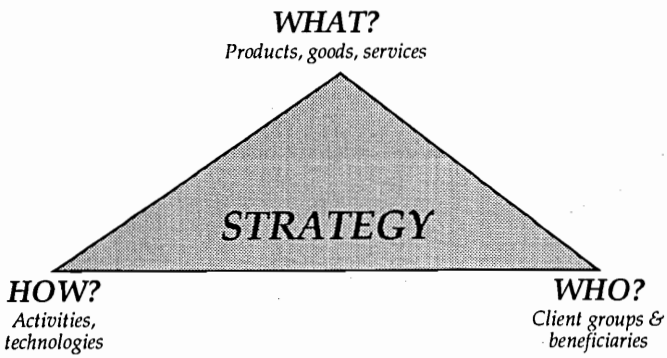


* In decentralized systems, policies can emerge from the local and/or local plus national levels.

uation, policies provide the overall guidance for answering the three questions. Strategic choice made in response to policy guidance, then, produces a strategy that can be thought of as forming a triangle, where the answers to the three questions provide the legs. This strategy concept is illustrated in Figure 4.2.

It is important to note a shift in policy analysis and strategy development in developing countries over the past several decades. Initially, much of the formal analytic and strategic work in developing countries was done either directly by donor agencies or by local planners at the instigation of donor agencies. Strategy formulation by the countries themselves was mainly informal and ad

Figure 4.2 The Three Basic Elements of Strategy



Source: Author, after Pfeiffer et al. (1985: 25)

hoc. Currently, many developing countries, particularly those in the middle-income and newly industrializing categories, have well-articulated and formalized policy analysis and planning systems.[3] The development strategies emerging from these indigenous systems are much more strongly "owned" by the countries themselves in a way that the donor-stimulated plans were not. This shift suggests that program managers must pay primary attention to the articulation between their programs and the strategic framework created by the national system even if the program receives significant amounts of donor resources to operate. An example of the link between strategic choice and program content, from CARDI, is contained in Box 4.1.

Program managers need to design programs whose contents fit the strategies their implementing organizations have chosen to pursue. Achieving a good fit can increase the prospects for effective program implementation and sustainability.

Two key dimensions of strategy are degree of risk and degree of innovation. Organizations choosing to do "business as usual" are pursuing what their members believe is a low-risk, low-innovation strategy. Having made their decisions about what to do, who to do it for, and how to do it, these organizations have selected a strategy to continue producing their current set of goods and services for their current clients. Essentially they are doing what they already know how to do as they move into the future. In contrast, organizations deciding to branch out either to provide new goods and services or to supply new clients or markets (or both) are following riskier, more innovative strategies.

Box 4.1 Strategic Choice and Program Content in the Caribbean Agricultural Research and Development Institute (CARDI)

CARDI, a regional research and development institute supported by its member countries (with some international donor support as well), expresses its sectoral mandate in the institute's mission statement: "To contribute to agricultural development through the generation and dissemination of appropriate technology that benefits the Caribbean people." CARDI elaborates on its mission through clarifying its strategy as: "To identify the agricultural R&D needs of member countries, study the basic research results available from other institutions, undertake applied and adaptive research in a selected range of crops and livestock enterprises to generate new technology, and transfer that technology to extension agents and farmers." The 1988-1993 strategy is operationalized through three programs: the Crop Production Program, the Animal Production Program, and the Integrated Development Program.

Each program's individual strategy derives from CARDI's mission and general strategy by addressing a specific aspect of regional R&D needs. The Crop Production Program's strategic aims target four objectives: increase yields and reduce production costs, increase availability of seed stock, reduce field and postharvest losses, and develop systems to maintain germ plasm for the region. The Animal Production Program has a three-pronged set of objectives: improve the management systems of all classes of livestock, increase the availability of improved breeding stock of small ruminants, and improve the nutrition of all classes of livestock. The Integrated Development Program also pursues three objectives: increase the relevance of agricultural technologies for farmers, improve the economic viability of production and marketing systems, and test potentially attractive but hitherto undiffused technologies at the farm level.

The three programs employ different but complementary technical approaches to R&D. As CARDI's strategic plan states, "Research is undertaken on a commodity basis in the Crop and Animal Production Programs, drawing from basic research accessed through the regional and international centers. Adaptive and applied research results pass through the stages of on-farm validation and commercialization in . . . [the] Integrated Development Program."

CARDI's strategy touches upon the what, who, and how elements of strategic choice illustrated in Figure 4.2 and exemplifies the flow from sectoral mandate to organizational strategy to individual program goals and objectives shown in Figure 4.1. CARDI has significantly improved its management capacity and R&D performance by explicitly articulating an overall strategy and specifying the links between it and program goals and objectives.

Source: CARDI (1988)

The relationship between strategy and program design and content can be better grasped by developing a table that graphically illustrates the contingencies involved. Table 4.1 establishes a simple typology of strategic choices and their associated program content characteristics.[4] This yields four types of strategies, with increasing degrees of risk and innovation, which can be sum-

Table 4.1 The Relationship Between Strategic Choice and Program Design and Content

Choice of Services	Choice of Clients: Current Client Groups or Service Areas	Choice of Clients: New Client Groups or Service Areas
Current Products, Services, and/or Technologies	I. ❑ Low risk ❑ Low addt'l. info needs for design ❑ Low design innovation ❑ Program content: - same objectives - same activities	II. ❑ Low-Medium risk ❑ Low-Medium info needs for design ❑ Low-Medium design innovation ❑ Program content: - new objectives - same activities
New Products, Services, and/or Technologies	III. ❑ Medium-High risk ❑ Medium-High info needs for design ❑ Medium-High design innovation ❑ Program content: - same objectives - new activities	IV. ❑ High risk ❑ High info needs for design ❑ High design innovation ❑ Program content: - new objectives - new activities

marized as follows:

Type I. "The No-Innovation Strategy." While it is an overstatement to imply that any organization can succeed applying a strategy that contains no innovation at all, this type of strategy is found in organizations that undertake routine, repetitive tasks in unchanging environments for stable client groups. In such a low-risk, low-innovation framework, program design requires relatively little additional information and analysis and almost no changes in products and services provided or technologies used. Program content can be characterized as having the same or similar objectives and the same or similar activities.

Type II. "The Low-Innovation Strategy." Organizations employing this strategy maintain their same product/service mix and technology but seek out new client groups and/or expand client coverage to new areas. This is a low- to medium-risk strategy. Program design calls for some new information, particularly about the new clients or the new region where goods and services are to be delivered. Some innovation in design may be called for, but this is essentially a case of replication. Program content features new objectives but the same kind of activities as before.

Type III. "The Medium-Innovation Strategy." Here organizational strategy is to develop new products and services and/or new technologies to serve an already-established set of clients within the region currently served. This strate-

gy is higher-risk than Type II because experience shows that the creation of new products, services, and technologies is more difficult and demanding than replicating or expanding what is already known to another location. Program design for this strategy demands an increased degree of innovation, plus additional information and analysis. Program content can be summed up as having the same objectives but incorporating new activities.

Type IV. "The High-Innovation Strategy." This is the most risky and demanding strategy an organization can adopt. It simultaneously envisions reaching out to a new set of clients in a new area and generating new products and services with innovating technologies. This strategy's program design requires high levels of information, analysis, and creativity. Program content embraces both new objectives and new activities.

This strategy and program design typology, though obviously simplifying the realities program managers face, nonetheless offers some important guidance. Precisely because programs are vehicles for implementing policy and operate as integral components of their implementing organizations, there needs to be some minimum level of alignment between a program's content and the strategy its host organization employs. Program designers and managers do not have the option available to project designers and implementors, namely segregating highly innovative or experimental undertakings in protected administrative and operational enclaves. This does not mean that programs cannot have innovative designs, just that there must be room in their host organizations' management strategies to accomodate innovation and experimentation. For example, to take an extreme case, a manager seeking to develop a Type IV program design within the framework of an agency whose decisionmakers had chosen a Type I strategy would be highly likely to encounter lack of understanding at best, withholding of support at least, and disapproval or reprimand at worst. Clearly the situation would not be conducive to sustaining the program (see Brinkerhoff 1986a).

Confronting situations of poor fit between agency strategy and program design, managers have two choices: either change their designs (easier) or try to change their agency's strategy (harder). It may well be the case that agency decisionmakers have not chosen the appropriate strategy for the development tasks their organizations face or for the environment they must operate in. This is a very common situation in many developing country public sector organizations (Ickis 1983, Moris 1981, Hage and Finsterbusch 1987, Kiggundu 1989). Furthermore, strategic choice is manifested in agency structures and procedures as well, so aiming to change strategy is all the more complex and difficult because change in one area implies changes in the others. This issue surfaces both later in this chapter and in subsequent chapters.

Before turning to the process of program design, an observation about the difference between donor perspectives on program design and those of the host

organization program managers is worth noting. Donors have their own strategies, and the kinds of projects and other assistance modalities they propose to a recipient country derive from those strategies. In addition, individual donor staff (e.g., USAID Mission directors) have their own personal strategic agendas; staff turnover can result in altered strategies and priorities. Although donors have an interest in meshing their assistance efforts with the needs and desires of the countries they work with, and increasingly recognize that sustainability depends upon it, the drive behind what donors are willing to support and how comes largely from their stakeholders, constituencies, and agency mandates. For example, a major actor in shaping USAID's development mandate is the U.S. Congress. Developing country program managers who work with donor agencies must remain aware of this distinction. They must take the initiative to ensure that externally provided support fits with their national needs, priorities, strategies, and programs, rather than the other way around. Program content whose designs reflect donor priorities over national ones will rarely achieve sustainability.

PLANNING WHAT TO DO: THE PROCESS OF PROGRAM DESIGN

Program managers are also concerned with how design takes place; the process of design and the procedures for program planning have direct impacts on the program management task. For example, in most developing countries, program and project design parameters are specified by standard operating procedures (SOPs), often emanating from the planning and/or finance ministries or the sectoral agencies involved. Many of these SOPs have specific time dimensions and calendar deadlines. For example, sectoral ministries must submit their proposed programs, in the approved format with budget estimates for the fiscal year, to the planning ministry by a certain date. The planning ministry must send the development budget—an aggregate of all the sectors' proposals—to the finance ministry within a specified time. The finance ministry issues approvals and/or revisions in the budget by another date and returns the budget to the planning ministry, and so on. In addition, as is well known and frequently cited as a problem, international donor agencies have their own design SOPs, which may or may not mesh well with national development planning systems (Rondinelli 1976).

Both national and international program design SOPs impose demands on program managers. These planning systems tend to be dominated by technocratic analytic methodologies—so-called blueprint approaches to design—which rely upon high levels of specification of objectives, activities, schedules, and outputs (Sweet and Weisel 1979, Korten 1980, Agarwala 1983, Rondinelli 1987). These, in turn, require large amounts of information in quan-

titative form and assume (incorrectly) significant levels of certainty about problem specification, the validity of proposed solutions, and future conditions under which the solutions will be implemented.

One of the defining characteristics of programs is that they are linked to existing organizations and are therefore subject to the design SOPs of the national system. So program managers must deal with the bureaucratic demands for blueprint-like specificity, which requires "jumping through the hoops" of the national administration and the "real world" exigencies of complexity, politics, and uncertainty that militate against the effectiveness of blueprint designs. The next section looks in more detail at some of these SOPs and discusses several ways that program managers can cope with them.

Developing Country National Planning SOPs

Much has been said and written about development planning in developing countries and need not be repeated here.[5] Of concern to managers is how the SOPs present in their bureaucratic setting structure the formal program design process. The impact of these SOPs is a good example of how looking outward links to looking in at program design. A complicating factor for program managers is that SOPs differ across organizations (sometimes even across units within the same organization). Since programs coordinate and integrate with several units or organizations, managers will be confronted with many different (and possibly conflicting) SOPs.

We will examine three categories of SOPs relating to planning: (1) action specification, (2) budget procedures, and (3) financial management procedures. These will be discussed in terms of (a) content and (b) timing and scheduling. The intent is to characterize these SOPs at a general level. Obviously, not all developing countries' planning SOPs are the same. With some exceptions, though, they share a sufficient number of common features as to make valid generalizations possible and useful (see Agarwala 1983).

Action Specification

Development planning in most developing countries has been conducted by the state and centrally guided by the planning ministry, the finance ministry, or some combination of the two. Although the lessons of the failure of central planning have not been lost on developing country governments, most still employ a degree of state guidance for development investment. Some countries have built a dynamic relationship between the public and private sectors for development, e.g., the newly industrializing Asian "tigers." Other developing countries, those in Africa for example, tend to be distrustful of heavy reliance

on markets and an unfettered private sector. With greater emphasis on privatization, however, the old centralized, macrolevel planning machinery of many countries is slowly but surely being dismantled.

The classic pattern of development planning (see Waterston 1969) is manifested in a two-level planning framework with the following components: (a) a five-year national plan with broad-gauged socioeconomic targets, broken out sectorally with goals for agriculture, industry, health, education, and so on; (b) an annual national plan that represents a one-year slice of the five-year plan, with a set of national and sectoral goals for the year, linked to the sequence of targets in the five-year plan; (c) multiyear sectoral plans keyed to the sectoral targets elaborated in the five-year national plan; and (d) annual sectoral plans, which contain a single-year compilation of the sectors' program and project activities. Current variants on this pattern that add flexibility (and reality) include rolling plans, indicative guidelines (rather than formal plans), and decentralization, which assigns the planning function to regional and/or local levels.

Action specification SOPs for programs and projects generally take the form of regulations and procedures that adhere to the standard design-implementation-evaluation cycle, with criteria for the components of each one. The SOPs call for a high level of detail and quantification. They require that program and project designs contain certain types of analyses, e.g., problem specification, economic, social, technical, etc. They usually reflect a bias toward "bricks and mortar" and specify goods and services output as objectives rather than use of those goods and services by beneficiaries.[6] Program plans that follow the letter of the SOPs' directives consist of a general rationale and goal statement; a set of analyses to assess feasibility; lists of activities, e.g., *x* meters of irrigation canals rehabilitated, *y* kilometers of macadam farm-to-market road built, *z* doses of oral rehydration salts administered, etc.; a schedule with quarterly and annual completion targets; and a budget. Many developing country agencies effectively treat the activities as synonymous with their objectives. Within the annual sectoral planning cycle, program planning SOPs usually call for action specification by quarter.

Budget Procedures

Most developing countries have two national budgets: the development budget (also termed the capital or investment budget) and the current, or operating, budget.[7] The single largest item in most countries' operating budget is wages and benefits. The distinction between the two types of budgets is rarely a neat one, since many existing public sector staff work on development tasks and are covered in the operating budget, which rarely identifies separate programs. Thus, it is difficult to relate outputs identified in the national plan to appropria-

tion of funds as indicated in the annual budgets. In today's times of fiscal austerity, though, some countries are making changes in budgeting procedures to enhance their utility for financial management.

Budget SOPs detail what types of expenditures go in which budget, who prepares the proposed budgets, who decides on the final budget and allocates the funds, and who does the actual disbursing. In most countries, the major actor is the finance ministry, with the planning ministry playing a secondary role with the development budget. The SOPs relate primarily to national fiscal and financial policy rather than to development policies and priorities. Budgetary adjustments rarely reflect development planners' priorities. Changes are made by a controller of the budget in the finance ministry who has neither the time, nor the inclination, to consult with planning ministry or sectoral agency staff before acting.

These SOPs can be a major source of uncertainty in the operating environment of program managers, especially in financially hard-pressed countries where the finance ministry may be forced to make budget reallocations or cuts on a quarterly or sometimes ad hoc basis. Also, many countries' SOPs are so cumbersome that even when funds are available, disbursements are subject to delays. These situations create the familiar "start-stop" flow of funds that wreaks havoc with rigid implementation schedules. For example, Haiti's ongoing financial and fiscal crisis has led the finance ministry to make unilateral decisions about the development budget, simply announcing cuts in sectoral allocations at the time of quarterly disbursements. Sectoral program and project managers rarely know what their actual operating budgets for the year will be and argue to the planning ministry that they cannot be held accountable for achieving targets since resource flows are so unstable (Brinkerhoff 1987).

Financial Management Procedures

The proliferation of SOPs for financial management gives credence to the old adage that "money makes the world go around." By far the largest number of hoops program managers must be prepared to jump through deal with financial control. Periodicity for financial SOPs, which varies by function (disbursements, audits, accounting) is a combination of annual and quarterly and, in some situations, monthly. Despite the espoused concern for results on the part of international donors and national agencies, their financial SOPs reflect an overwhelming interest in managing how, where, and for what funds are spent. For example, USAID's Sahel Development Program required certification of the adequacy of recipient countries' financial accounting systems to provide an audit trail acceptable to the U.S. inspector general prior to the disbursement of grant or loan funds. The failure of many Sahelian governments to meet the certification requirements and the resulting pressures from U.S. government audi-

tors, rather than the countries' failure to achieve performance targets, triggered USAID's decisions to enforce the certification requirements more strictly and to design a project to strengthen financial management in the region (Kettering 1982, 1985). This case illustrates the primacy of financial SOPs.

Financial SOPs influence program design in several ways. First, most governments have rules and procedures governing such things as travel, per diem, equipment and services procurement, contracting, foreign exchange, and so on. Preparing a design requires knowledge of these SOPs. Second, because most financial SOPs permit very little flexibility and furthermore tend to be assiduously enforced, program designs with inaccurate budgets that fail to make provision for fulfilling the reporting requirements of the SOPs contain built-in headaches for managers during implementation (see Chapter 6).

Coping with SOPs

What can program managers do about SOPs during program design or redesign? SOPs are one component of a program's bureaucratic setting, so the answer harks back to the previous chapter on program environments (see also Kearns 1988). The first step, while obvious, is nonetheless essential: find out what the SOPs are. Managers need to do some rapid reconnaissance on administrative procedures. CARDI did this in two stages. First, a consultant conducted interviews with staff to obtain baseline information on program activities and administrative procedures (Ingle 1984). Second, the information from the interviews was incorporated into an implementation start-up workshop in 1984. Among other workshop activities, managers and staff conducted a calendar exercise that identified key events during the year: ministry of agriculture events (plan deadlines, etc.), national events (e.g., budget appropriations, legislative votes), farmer events and holidays, USAID events, and internal program events. In an annual cycle of 200 workdays per year, CARDI identified some 125 events (across all the member countries) of importance to its programs (Isman 1984: 53-54). The majority of these related to some kind of SOP.

The second step is to test for possibilities of modifying the SOPs identified. Some will have simply to be appreciated as constraints—the SOPs of the finance ministry, for example. Others will be under the direction of the manager's host organization or the program itself. Others could potentially be influenced; for example, the planning ministry might be open to working out a special arrangement for approvals during a program's critical start-up phase.

The third step is to make sure that the program design includes both the time and the resources for fulfilling the SOPs. Doing this effectively depends upon the preceding two steps, especially the first. Without knowledge of what is required when, and what will be needed to fulfill the requirements, time and

resource projections are likely to be inaccurate.

DESIGN AS LINKING PLANNING AND IMPLEMENTATION

In looking at the program design process and planning SOPs, we have so far accepted the conception of planning and design that underlies them. In this section we turn to modifying that conception. The "projectizing" of development, noted above as an element in SOPs for program design, has been a major contributor to the segmenting of development undertakings into sequenced phases of identification, design, implementation, and evaluation. The project cycle has

Box 4.2 Kenya's Agricultural Systems Support Project

In the late 1970s, in response to a request from the Kenyan government for assistance in improving the base of trained personnel in agriculture, USAID expanded its agriculture sector program with the addition of the Agricultural Systems Support Project (ASSP), which provided resources to expand Egerton College, one of the two agricultural institutes in the country to offer professional training at the diploma level. USAID provided $10.7 million in grant funds and $23.5 in loans; the government put up $11.4 million. The project contained infrastructure improvements, teacher training and skill building, and enrollment expansion as its major targets.

A variety of actors was involved in implementation. These included the Kenyan ministries of agriculture and education, the finance ministry, USAID/Kenya, a consortium of U.S. universities, a technical assistance (TA)team, construction and engineering firms, and the staff of Egerton College. Once implementation began, it quickly became apparent that the project faced serious management problems. Following USAID discussions with the MOA and Egerton officials, and some behind-the-scenes "arm-twisting" pressure on the prime TA contractor (the consortium), a management improvement component was added to ASSP.

As a start to addressing ASSP's implementation problems, the management improvement team conducted a workshop in which all the actors involved in the project participated. Attending were the implementors and the USAID and Kenyan staff who had worked on the project's design. One of the workshop's exercises was to develop accurate estimates of the length of time necessary to accomplish various activities as a basis for more realistic scheduling. Designers and implementors were separated into two groups and asked to come up with estimates. A review of the two sets of estimates revealed that those of the designers were, on average, 50 percent more optimistic than the implementors'. Because the designers and implementors sat in different offices, they had never jointly discussed the scheduling element of ASSP's design until the workshop. Thus, from the start, the project's design contained significant planning errors that contributed to the implementation problems ASSP faced.

Source: Ingle (1983)

become such an integral fixture in the development landscape that people sometimes mistake it for an immutable reality, forgetting that the cycle is only a heuristic construct formulated to give structure to development action.

While the planning-implementation-evaluation cycle has proven useful, and in fact makes a lot of practical and intuitive sense, it does have some drawbacks and weaknesses (see Lecomte 1986 and Morgan 1983). First, the cycle's separation of action into discrete phases has led to (a) compartmentalization of the tasks in each phase that disguises the many linkages among them and (b) an assumption of linearity of action, that is, the view that you do all your planning first, then you implement the plan, and lastly you evaluate how well what you implemented fits with what you originally planned. This separation of phases has in many countries been exacerbated by the pattern of creating separate organizational units to deal with each phase. Thus, more important for managers, compartmentalization is bureaucratic as well as conceptual. For example, a standard structure found in the organization charts of many planning ministries, and replicated at the sectoral level in line ministries, contains separate offices of program/project identification and design, implementation, and monitoring and evaluation. Box 4.2 shows one instance of what can happen in project design as a result of such bureaucratic separation; the implications for program design are the same.

Second, the cycle construct, in being transferred from the setting where it was originally developed—engineering, aerospace, and construction—to socioeconomic development, has led practitioners to overestimate the validity of technical analysis and the ability to specify solutions to problems in advance—that is, prepare blueprints—and underestimate the level of uncertainty in carrying out the solutions devised. Third, and related to the second, its emphasis on preplanned solutions has fostered an institutionalized incapacity to learn and experiment as development agencies have internalized the cycle in their SOPs (see Rondinelli 1983a and Korten 1984).

To cope with these failings, the blueprint approach to design and implementation needs to be tempered with systematic attention to process.[8] All programs and projects require a combination of blueprint and process to be successful (see the next section). However, the first formulations of the so-called process approach, which emerged from the experience of community development, tended to frame the issue as an either/or choice (Korten 1980, Korten and Klauss 1984). The "learning process approach" posited that the project or program cycle begins with a set of resources and the mobilization of local people to identify their needs and problems, proceeds to the development of tentative solutions, continues with their testing and refinement through experimental trial and error, and evolves a participatory learning process that is then applied to other problems. Goals, targets, and schedules emerge as a result of the interplay between local people and resource and service providers. These are constantly in the process of being revised as learning and adaptation take place. Box 4.3 provides an example of the most extensive field application of

Box 4.3 Design-by-Learning Process in the Philippines National Irrigation Administration

Design using the learning process approach merges design with implementation. It begins with the formation of a coalition of interested actors around a jointly identified problem. This coalition is organized into a working group made up of agency members and outside resource/knowledge providers. The group establishes a "learning laboratory," which undertakes the experimentation and trial and error the agency must go through to develop a new, client-centered mode of operations. The laboratory serves as a nurturant and protected setting within which the agency has the freedom to learn how to learn new service delivery methods. The working group also manages feedback to key decisionmakers to facilitate the integration of the new practices into the agency's policies and operations.

The learning process evolves through three stages:

1. *Learning to be effective.* Developing an appropriate solution to locally defined problems and an effective service delivery response.
2. *Learning to be efficient.* Reducing the cost of the response to achieve a fit with available resources, designing appropriate management systems and operating routines, and building a cadre of competent, committed staff.
3. *Learning to expand.* Applying the systematized problem definition and response capacity on a wider scale, over a long time frame, and to new development problems as needs emerge.

These three stages overlap as the agency's program moves along the sequence of learning curves. That is, the learning-to-be-effective process continues while the agency begins to learn to be efficient, and so on.

The Ford Foundation's assistance to the National Irrigation Administration (NIA) in the Philippines started in 1976 with a project to improve its Communal Irrigation Program. The nation's policy framework for irrigation had evolved to the point where it implicitly called for irrigation associations to play a leading role in irrigation development and management. The NIA's role, while remaining of critical importance to irrigation development, was meant to be supportive of farmers' own efforts. But the agency had become accustomed to making all the key decisions and informing the farmers accordingly. This method and structure was ill-suited to playing a supporting role.

The NIA used a working group, the Communal Irrigation Committee, to assist the agency's transformation. This group was designed specifically to act as a catalyst for organizational change, helping discover field-level needs that demanded new methods, assisting in developing and refining such new methods, and supporting the expansion of their use within the agency.

The Communal Irrigation Committee had a number of features that characterized other working groups subsequently developed to support transformations of bureaucracies. Each of these groups was designed to create a dynamic process that could stimulate and support accelerated innovation. The working group had a flexible structure, and its members joined and left as needed, with

subsets of the group forming task forces meeting specific needs and dissolving as those needs were met.

The working group's function was to set the learning strategy that would assist the NIA in transforming its communal irrigation development program. That strategy involved learning cycles composed of five principal steps. The initial step was to identify an aspect of the NIA program that was not adequately fulfilling the agency's mandate (a performance gap) and hence required innovation. In this case, it was found that the communal irrigation systems were not being used properly and were not being properly maintained. Once identified, the next step was to conceptualize a new approach and try it out on a small scale. Here, it was decided to contract with the Farm Systems Development Corporation to provide community organizers to mobilize farmers into irrigation associations in two communities.

Following such initial trials, the need was to systematically extract lessons that would be relevant to applying the approach more broadly within the agency. And after lessons were systematized in forms that could be widely communicated, the final step was to develop capacities to use those lessons throughout the agency and institutionalize the appropriate changes into the agency's routines. In this case, when the farmers organized, they expressed their concerns about the location of diversions and canals, the timing of construction, and the choice of laborers for construction work. These concerns were fed back to the technical staff by the community organizers within NIA whose main purpose was to facilitate the interaction between the farmers and the technical staff. Since the farmers gained some influence in the design of the communal irrigation systems, they were more committed to the systems and their associations functioned more effectively.

Through these five steps, the identification of a need for innovation gradually led to improved practices on an agencywide basis. But a linear conception of those five steps represents only part of the learning strategy. Equally important were the feedback loops within the cycle. The small-scale trials, the process of systematizing the lessons, and the broader-scale applications were all used to identify additional program elements needing innovation, which then initiated new learning cycles. Although the pilot project described above was plagued with problems that caused delays and required more adjustments in NIA's operating procedures than were expected, it proved the value of integrating social and technical approaches, provided learning laboratories that identified problems, provided engineers and organizers with valuable experience in working together, and experimented with solutions. Similarly, lessons were not only drawn from small-scale trials, but were also gleaned from the broader applications, thus enriching the lessons and increasing their applicability.

Once a satisfactory program model was developed and tested, one communal project was selected as a pilot in each of NIA's twelve regions for implementation of the community organizer approach. Each region was then able to take the new methods and adapt them to their needs. By 1983, the new program was diffused throughout NIA and had become the standard operating procedure on all of its communal irrigation projects.

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The design changes made within NIA had the effect of increasing decentralization. The first change was the creation of a task force at the top of the organization. The second was the creation of work groups, essentially problem-solving groups, within both NIA and the user associations. These changes decentralized strategic decisions and created a network of communication, characteristic of organic structures. Changes that make an organization less hierarchical and more flexible, that change an organization from a bureaucratic to an organic one, increase innovation and responsiveness to the needs of the clients; these changes are characterized by Korten as moving toward a "learning process approach."

Source: Korten (1982), Korten and Siy (1988), and Hage and Finsterbusch (1987)

this process alternative to the standard project cycle blueprint.[9]

Despite the success of the learning process approach in demonstrating the benefits of combining local community knowledge and action with inputs from NIA, it has remained a somewhat fragile innovation in the irrigation agency (Korten and Siy 1988). It appears that the learning process approach, in its purest form, works best in development agencies that accept high levels of autonomy, tolerate ambiguity, and have low levels of procedural regulations and accountability requirements—foundations and private voluntary organizations.[10] In addition to the Ford Foundation–supported NIA experience in the Philippines summarized in Box 4.3, the other long-term application of the process approach has been undertaken in Sri Lanka's Gal Oya Project, also in the irrigation sector, supported by USAID (Uphoff 1985, 1986a).

However, elements of the process approach, such as the idea of development efforts as experiments, the need for iterative adaptation, and the incorporation of local information into design have come to be more widely accepted in donor agencies and some developing country public sector development agencies. There has been some cautious experimentation with flexible project designs (Hermann 1986) and more acceptance of the need for design modification during implementation.

But as we noted above, program managers operate in a bureaucratic setting where SOPs still reflect a largely blueprint mentality. Superiors want detailed plans and budgets, targets and schedules, resource projections, and so on. Managers' programs do not function in the protected enclaves of donor-established project implementation units, private voluntary organizations, or nongovernmental organizations; they are subject to the public sector bureaucratic nexus of pressures and incentives. How can program managers blend the process approach to design and implementation with the specificity demands of the SOPs their host agencies require?

Structured Flexibility

One answer involves combining the attention to creating a capacity for flexibility and iterative learning that characterizes the process approach with the planned structuring of action that blueprint designs reflect (Brinkerhoff and Ingle 1989). This blend has been termed a structured flexibility approach.[11] It copes with the limitations of blueprinting while retaining the intuitive appeal of treating development action as a cycle by reconceptualizing the cycle to (a) stress the linkages—especially in the form of feedback—among the phases and (b) emphasize the flow of moving through the phases as iterations that result in learning and dynamic adaptation to inherently uncertain situations. This modification fits much better with the reality of intervening in complex and uncertain settings to promote socioeconomic development and with the long-term nature of programs, which must have mechanisms for reflection and modification in order to remain effective.

Program design becomes not an exercise in the elimination of uncertainty by applying technical analysis (a futile effort given the level of understanding of the social technologies of development) but a clarification of the uncertainty in the environment and the preparation of initial responses along with the identification of the criteria that will tell managers when to modify those responses. The resulting plan is a set of guideposts to deviate from as circumstances change and knowledge accumulates, instead of as a roadmap to be mechanically followed.[12]

The *structure* comes from a plan with many features managers readily recognize: specification of objectives and targets (short-term and long-term), elaboration of a strategy for attaining the objectives, delineation of who will do what (activities, roles, and responsibilities), and schedules and budgets. The *flexibility* is incorporated through the explicit linking of planning and implementation whereby managers use feedback to modify plans and redesign the program based on results achieved. The merging of planning with implementation by shortening and speeding up the iterations of the program cycle provides managers with the information on outputs, impacts, and environmental changes that allow flexible adaptation (see also Hoppe et al. 1987).

The dynamic is akin to the action of a gyroscope; the faster the gyroscope spins, the better its ability to cope with external shocks and pressures without tipping over. The more frequently program managers go through the cycle of design/planning, implementation, and learning/redesign, the better their ability to manage flexibly and achieve results in uncertain environments. A generally appropriate and feasible time frame for formally cycling through one iteration is a year (see Hart and Ingle 1986). The process can be thought of as a series of annual cycles meshed within the larger cycle of the life-of-program (see Box 6.1).

Success with the structured flexibility approach depends critically upon

proactive management of the environment (Chapter 3) and a facilitative leadership style (Chapter 7). Plans are only as good as the information collection, analysis, and technical "correctness" that go into them *plus* the agreements on and commitments to action generated through the planning process. Without the facilitative conditions created by key stakeholders in the environment, no amount of detailed planning will help programs to succeed. So involvement of beneficiaries, implementing agencies' staff, and donors is critical to successful program design, not only because they have information that program managers need to incorporate into their plans, but also because programs need actions and responses by these various stakeholders to accomplish their goals. Table 4.2 summarizes the characteristics of the approach, and Box 4.4 provides an example of its use in Pakistan.

Although the structured flexibility approach derives from analysis and experience with project management, its precepts and prescriptions are equally

Table 4.2 Characteristics of a Structured Flexibility Management Strategy

Planning	Initial planning sets short- and long-range goals subject to periodic adjustment and redesign by teams of planners and beneficiaries during implementation.
Decisionmaking	Top managers and planners provide overall guidance subject to results of continual interactions between communities, beneficiaries, and local problem-solving staff.
Authority	Consultative, shared, and collegial on local level and between levels of bureaucratic hierarchy, with higher level managers and planners giving broad guidance parameters but not detailed procedures.
Basis of Authority	Expertise, with broad guidelines by organizational leader.
Leadership	Facilitative of staff interactions and initiative with top-level prerogative to resolve conflict and provide overall guidance.
Coordination	Flexible, minimal rules subject to change through participatory negotiation as experience broadens and conditions change.
Monitoring and Evaluation	Continual iterations of reconnaissance of changing conditions, redesign, implementation, and learning guided by top managers, local staff, communities, and beneficiaries collaboratively.
Staff Placement and Promotion	Based on broad objectives and staff initiative when tasks are unclear and conditions changing, based on more well defined functions when tasks are clear and until conditions change.
Organization of Subunits	Matrix of units with a blend of more flexible units; periodic reconsideration of appropriateness of matrix.

Box 4.4 Flexible Design for Pakistan's Command Water Management Program

Pakistan's Command Water Management (CWM) program, launched in 1984 by the Pakistan government, the World Bank, and USAID, addressed problems in irrigated agriculture. A five-year pilot (1984-1989), CWM focused on improving irrigation management at all levels in subproject areas in the Punjab, Sind, Baluchistan, and Northwest Frontier provinces. To assist with CWM's operational design, the Management Training and Planning (MTP) project was developed and conducted jointly by Colorado State University (CSU) and the University of Maryland's International Development Management Center (IDMC).

In late 1985, MTP began with a needs assessment to better understand and develop agreement among key policy, executive, and operational managers about important management needs and how they should be addressed. Interviews revealed needs in three areas: (1) relationship of the CWM project to the larger development environment, (2) effective project management, and (3) introduction of appropriate, sustainable technologies. To deal with the needs, MTP consultants and a CWM task group conducted meetings and workshops that brought together in varying combinations representatives of CWM organizations and beneficiaries to design and plan what to do. Provincial departments from the policy level (secretaries of irrigation, agriculture, finance, and planning and development), the executive level (directors, directors general, and chief engineers), the operational management level (deputy directors and superintending and executive engineers), and the field level (agricultural officers and subdivisional officers) all participated.

Concurrent with the needs assessment, MTP staff planned a management improvement program in each province to begin to address the needs identified. Instead of separating management training from water management planning as originally envisioned, it was decided to work together to develop a "management training and planning" program that would integrate management and water management concerns. Joint planning, however, could not take place without a mechanism to involve all the actors. MTP used the team planning meeting (TPM) methodology (see Silverman et al. 1986) to bring the diverse organizations and individuals involved in the CWM project together in a collaborative problem-solving and planning process that would help move the project ahead, while strengthening important management skills.

The TPMs built upon the technical studies conducted in each subproject, which provided information about water distribution, agronomic conditions, availability of markets and inputs, and farmer needs and concerns that CWM-related organizations could use to identify and address problems and opportunities for improvements. Each provincial MTP team consisted of four to five specialists, with at least two water management and two management specialists on each team. The purpose of the TPMs was to give CWM staff the opportunity to

1. Reach a common understanding of the context, purpose, and structure of the CWM program and the results of the technical studies of the provincial pro-

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ject area;

2. Establish and agree on the purpose, intended outcomes, and approach of the MTP project;

3. Understand individual and collective roles and responsibilities; and

4. Plan how to tailor and implement MTP design in the province where they worked.

The TPMs functioned as workshops using the action-training approach (see Chapter 7). This meant that MTP workshops led participants to address the actual problem-solving and planning tasks of CWM, while learning skills and concepts that would allow them to continue this work.

Each MTP provincial intervention contained three phases: entry, management training and planning, and consolidation. In the entry phase, the team met with key CWM actors in the province, especially the subproject manager and his staff, to obtain their input, involvement, and support. In the management training and planning phase, two workshops were held. The first brought together selected individuals from the field and operational management levels of CWM participating organizations to reach a common understanding of the problems in the subproject and the factors contributing to them. The second workshop brought together a smaller planning team representing primary implementing organizations to address the most important problems defined in the first workshop and to draft an interorganizational action plan. In the final consolidation phase, the team worked with the subproject manager and his staff to conduct briefings for the policy- and executive-level officials. The intent was to obtain input and support for the draft management plan as well as for any specific decisions required.

Source: Jones and Clyma (1988)

valid for program management, with the following difference in orientation (see Chapter 2 on the links between project and program management). Both project and program management require a mix of structure and flexibility; the difference in the use of structured flexibility is the relative combinations of the two in the mix. Structured flexibility, as applied to projects implemented by single organizations, has concentrated on changing "overorganized" systems having problems resulting from being too rigid and tightly coupled (blueprinting). Consequently, its primary emphasis has been on making these systems more flexible and open; its secondary emphasis is on the structure side.

Structured flexibility in a program context reverses these emphases. Programs usually involve networks of groups and organizations that frequently have not worked together before, a case of an "underorganized" system. Here, the primary emphasis is upon creating an interorganizational structure and providing it with sufficient organization to become functionally operational. The

secondary emphasis is on flexibility, both in the interorganizational structure and in the program's host organization (the national planning SOPs). The need for program managers to work effectively in underorganized systems, where there is a relative absence of hierarchical authority and control, once again highlights the importance of actively managing the environment through politicking, networking, bargaining, and so on.[13]

DESIGN FOR PROGRAM SUSTAINABILITY

Development requires change, and when that change is (a) extensive and/or complex and (b) undertaken in uncertain or hostile environments, it encounters problems. As is stressed throughout this book, the management of development, including intervention design, calls for flexibility and adaptation.[14] Development programs operate under national and sectoral mandates to bring

Box 4.5 Integrated Rural Development in Haiti

The Haitian government's integrated rural development program in the northern region, designed and funded by the World Bank, started in the late 1970s and continued into the late 1980s. The program had three major goals and seven categories of subobjectives and activities. The goals were: (1) to increase small farmer production in a 9,000-hectare area, (2) to rehabilitate and build rural infrastructure, and (3) to develop implementation capacity within the regional umbrella agency and the local units of the participating line ministries. The seven subobjectives were irrigation systems rehabilitation, construction, and support; agricultural research, extension, and seed production; long- and short-term agricultural credit; secondary roads rehabilitation, construction, and maintenance; community water systems rehabilitation, construction, and support; small local projects promotion; and management capacity building.

The program was plagued with problems from the start, due in large measure to the demands the overambitious design and overoptimistic implementation schedule placed on weak central ministries with even weaker regional and local subunits. The number, breadth, and complexity of the program's goals were overwhelming, yet the government and implementing agencies were under constant Bank pressure to meet targets for tranche release. The ultimate result was a lot of wasted money and effort, with little concrete development outcomes to show for it all. Although the program's design paid some attention to capacity building, the drive to demonstrate the performance required by the donor agency for additional funds skewed incentives away from seriously addressing the capacity issues. Sustainability requirements were never effectively met.

Source: Brinkerhoff (1988)

about change. While all of the changes may be both desirable and necessary, sustainable socioeconomic development cannot be attained through any kind of quick fix; it is a long-term undertaking. Program design, then, needs to blend short-term (one to three years), medium (three to six years), and long-term (six years and beyond) perspectives. The short-term perspective directly confronts the requirements of national planning SOPs by providing specifics on immediate objectives, activities, budgets, and schedules. Design also needs to combine visible performance gains in the immediate future, particularly to respond to the interests of key stakeholders in quick results, with capacity building to sustain performance over the long term. The balance between performance and capacity-building objectives is important for project design (Honadle and VanSant 1985), but is even more critical for the design of sustainable programs. A persistent danger in program design is tipping the balance in favor of short-term performance and meeting SOPs, often manifested in either too many objectives or too ambitious output schedules, or both. This results in overload and disastrous consequences for capacity building and sustainability, as Box 4.5 illustrates.

Achieving this balance requires that program design stipulate (a) how to get the program started (or restarted in the case of redesign) to meet its proposed short-term targets and produce the initially specified set of benefits and (b) how to build the capacity of the program-implementing organization(s) to specify ongoing targets and produce future iterations of benefits that maintain a continuous fit with client needs and thus are valued. Earlier in this chapter, we discussed the relationship between program design and implementing organization strategies, characterized along a continuum from "no innovation" to "high innovation" (see Table 4.1). Two points were made there that have implications for program design for sustainability. First, because development programs by definition have change objectives and seek to introduce innovations, they do not fit well with the "no innovation" class of organizational strategies (current clients, current objectives and activities). Second, "no/very low innovation" types of organizational strategies are inappropriate choices for developing country environments if achieving development goals is the focus of the organizations' mandates.

The design implications can be thought of as emerging from the two options program managers have when confronted with poor fits: change the program's design or change the host organization's strategy. Addressing these implications means answering two questions:

- What degree of innovation fits the particular environment the program is operating in?
- Within the program boundary, what level of effort should be devoted to modifying the strategies of the program's implementing organization(s) to better fit the operating environment?

Both these questions relate to the balance between performance and capacity and between short-term and long-term perspectives needed for sustainable programs.

Level of Innovation

The level of innovation present in a program derives directly from the degree of "newness" in the objectives to be pursued and in the tasks required to achieve them. Newness is also reflected in the extent to which implementing the program's tasks requires a new technology. New technologies, tasks, and activities will demand new patterns of behavior and skills from both implementors and beneficiaries. Measures of level of innovation can be thought of as emerging from assessments of two factors: predictability and demandingness (Middleton et al. 1987).[15]

Predictability means the extent to which the outcomes of tasks are known beforehand. If outcomes are unknown, then innovation is high, and vice versa. Two criteria make up predictability. First, are tasks analyzable, that is, can they be broken down into a precise sequence of steps that can be easily followed? For example, the set of tasks in maintaining a "cold chain" for the delivery of refrigerated vaccines to regional health centers is highly predictable; shifting a treatment-oriented health care system to a preventive orientation is less pre-

Table 4.3 Level of Innovation in Program Design

Predictability \ Demandingness	Low	High
High	I. Routine	II. Low-Medium Innovation
Low	III. Medium Innovation	IV. High Innovation

Source: Adapted from Middleton, Rondinelli, and Verspoor (1987: 34)

dictable. Second, how much variety is there among tasks; that is, do they address vastly different problems and/or call for different skills?

Demandingness refers to the gap between the requirements of the new tasks and those associated with current practice, as assessed on two dimensions. How large is the deviation between what is currently being done and the new tasks? What is the scale of change; does it cover a large geographical area, and are many organizations involved?

Combining the possibilities for predictability and demandingness results in four typically distinguishable levels of innovation in program design. These are illustrated in Table 4.3. As can be seen, the levels correspond relatively closely to the types of program design content associated with the four categories of organizational strategies presented in Table 4.1. Thus, Type I program content (same objectives, same activities) exhibits a low level of innovation (routine) because the outcomes of its tasks are highly predictable and demand little that is different from current practice. Type IV program content (new objectives, new activities) represents the other end of the spectrum: a high level of innovation due to low predictability and high demandingness.

Table 4.4 Factors Contributing to Environmental Uncertainty/Hostility

	Factors Contributing to Low Hostility in the Environment	Factors Contributing to High Hostility in the Environment
Level of demand for system outputs	High level of extant demand; demand creation unnecessary	Low level of extant demand; demand creation necessary
Nature of system outputs	Outputs are private in nature, easily translated into value or inputs	Outputs are public in nature; hard to value or translate into inputs
Characteristics of Stakeholders	Members of lower socio-economic strata, unorganized, low demand-making ability; conflicting interests	Members of political, economic, or sociocultural elite; high demand-making ability; non-conflicting interests
Stability	Environment is stable along economic, political, and sociocultural dimensions	Environment is unstable along economic, political, and socio-cultural dimensions
Flexibility	Economic, political, and sociocultural features of the environment permit and/or support system change	Economic, political, and socio-cultural features of the environment do not permit and/or support system change
Artificiality	Environment displays low levels of distortion along economic, political and sociocultural dimensions	Environment displays high levels of distortion along economic, political, and socio-cultural dimensions

Source: Adapted from IDMC/DPMC (1988)

Fitting Level of Design Innovation to the Environment

Sustainability is enhanced when the levels of innovation that programs contain match the capacity in their environments to accept, incorporate, pursue, and value the changes they seek to attain. So far we have been concentrating on how program designs relate to the organizations they reside within. Here we examine the contingencies associated with aligning the degree of innovation in program design with key features of the external environment. To match environmental conditions to level of innovation in design, recalling the characteristics of environmental uncertainty and hostility is helpful. Uncertainty and hostility ratings derive from a composite of eight variables. Table 4.4 summarizes the ratings.

Examining degree of innovation under differing levels of environmental uncertainty/hostility, we find four prototypical program design variants with strong potentials for sustainability.[16] These are presented in Table 4.5. It should be noted that these design types apply equally to project designs. The key difference, which relates to the defining characteristics of programs, is that projects can more easily be buffered from environmental uncertainty and hostility and therefore can more effectively undertake highly innovative activities in uncertain and hostile settings, whereas programs cannot.

Table 4.5 Sustainable Program Design Strategies

Environmental Uncertainty and Hostility	Level of Innovation: Low	Level of Innovation: High
Low	I. Incremental Expansion	II. Comprehensive Change
High	III. Discrete Change	IV. Progressive Innovation

Source: Author from IDMC/DPMC (1988), Hage and Finsterbusch (1987), Middleton, Rondinelli, and Verspoor (1987: 109)

Incremental Expansion

This type of program design successfully introduces somewhat innovative changes into environments with relatively low levels of uncertainty and hostility. An example of incremental expansion is the World Bank's school construction programs using low-cost construction technology in sub-Saharan Africa. The design selects a few sites in the country where low-cost, low-maintenance, labor-intensive construction techniques are employed using a local contractor under the supervision of the education ministry. Gradually the techniques are applied to other sites as the ministry gains experience and skill in managing small construction programs in rural areas using a new technology. So far, such programs have been undertaken in Senegal, Burkina Faso, Mali, Niger, and the Central African Republic.[17]

Comprehensive Change

Designs featuring high levels of innovation that call for comprehensive and broad changes fit environments with low levels of uncertainty and hostility. Successful examples of "big push" program designs in developing countries are few. Experience indicates that they require either high levels of state coercion, which conflict with the democratizing values underlying much development investment, or high degrees of sociocultural cohesion. Examples of the former situation include the forced collectivization of agriculture in the Soviet Union in the 1930s and in China in the late 1940s and early 1950s. An example of the latter is the land reform and rural development programs in postwar Taiwan carried out by the Joint Commission for Rural Reconstruction (Brinkerhoff 1980).

On the other hand, examples of failed comprehensive change efforts are legion. Among the best known is the bulk of the experience with integrated rural development (Honadle and VanSant 1985; see also Lele 1975). Experience suggests that program designs seeking to pursue comprehensive change are highly risky and in most situations will best serve as a starting point for an eventual design that modifies the depth and scope of innovation envisioned (more on this later).

Discrete Change

Designs introducing discrete, limited change are appropriate for highly uncertain and hostile settings and are often the only types of designs with success potential in such contexts. The problem with this design type, though, is that the potential for widespread development impact is relatively low. An

example of discrete change comes from a USAID program in the mid-1980s, one of whose components aimed at improving the Haitian planning ministry's capacity to manage the national development budget. Changes were made in the government forms used to monitor development project progress and approve quarterly expenditures, and the system was computerized on a pilot basis. However, in Haiti's extremely hostile and uncertain environment—including constant replacement of ministers and key staff, reorganizations, and the fall of the Duvalier dictatorship—the intended expansion of the changes to the line ministries was stymied (Brinkerhoff 1987, 1990).

Progressive Innovation

This design variant fits highly innovative change to uncertain and hostile environments. It progressively increases the level of innovation over the life of the program in response to (a) learning on the part of implementors and beneficiaries alike and (b) increased support for change as stakeholders begin to perceive and value the benefits produced. It explicitly targets the short-term performance aspect of sustainable design by building in early performance successes with lower levels of innovation and works toward the long-term capacity-building aspect by phasing in more innovation as key actors develop the knowledge and skills to handle it. A good example of design using progressive innovation is the Philippines' NIA case described in Box 4.3.

Integrating Environmental Fit with Host Organization Strategies

The preceding sections have proposed an answer to the question, What degree of innovation in program design is appropriate for different environments? Still unaddressed, though, is the other question raised above, namely, the extent to which program design should incorporate activities aimed at modifying the strategies of the program's implementing organization(s) to better fit the operating environment. All of the design variants reviewed above depend for success upon increased capacity on the part of implementing agencies to pursue innovation and change. This dependence is quite strong for comprehensive change and progressive innovation designs and somewhat less so for incremental expansion and discrete change, indicating that it takes more management capacity to manage innovation effectively.

Therefore, a central piece of design for program start-up (leading to initial performance) is a management improvement component (recall Box 4.4). If the development program's host organization is using a "no/low innovation" operating strategy (Table 4.1), then among the tasks for the program's management

improvement component is to help the organization develop a more appropriate operating strategy for implementing socioeconomic development mandates. This feeds directly into the other piece of program design: focusing upon building capacity to deliver future iterations of services and benefits (leading to long-term performance). Building implementation capacity, as was discussed in Chapter 2, is one of the five functions of program management. There are two kinds of capacity: (a) active, that is, focused on accomplishing a specific and immediate task, and (b) reflective, that is, focused on learning and adaptation (IDMC/DPMC 1988, Brinkerhoff et al. 1990). Effective implementation calls for both. However, the relative mix varies with the level of innovation. Highly innovative programs need to emphasize the reflective dimension of capacity, whereas programs containing lesser degrees of innovation should concentrate upon building active capacity.

Obviously, designing an implementation capacity, or, as it is frequently called, an institutional development, component for a program involves more than simply adjusting strategy. As we noted earlier, organizational strategy is linked to structure and processes. These topics are covered in later chapters. Chapter 8, in particular, looks at management improvement interventions to assist programs with performance problems.

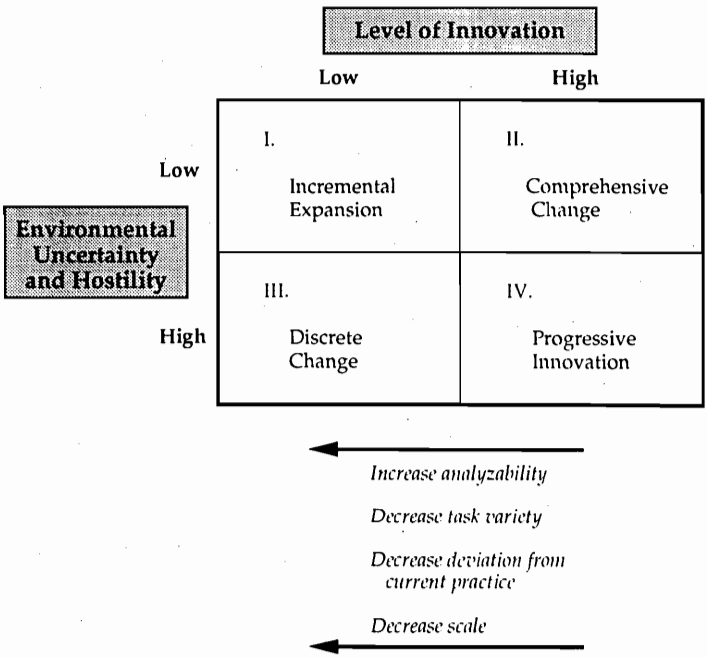
Program Redesign Using the Structured Flexibility Approach

Our modification in the program design-implementation process from a linear to an iterative one emphasizes the links between design and implementation and highlights redesign as a regular part of program managers' responsibilities and concerns. Program managers and their organizations get better at the design-implementation-redesign cycle as implementation progresses, knowledge increases, and learning takes place.

What options do program managers have for redesign of the four design types presented above?[18] One choice is to reduce the program's level of innovation to better match both environmental conditions and implementation capacity. The available options are to move from comprehensive change to incremental expansion, or from progressive innovation to discrete change. These options are shown in Table 4.6. Task analyzability can be increased by using known and tested technologies, more specific procedural guidance for task accomplishment can be devised, more job specialization can be introduced, and so on. Task variety and degree of deviation from existing practice can be reduced. Innovation can be broken down into smaller steps that require less change in behavior or new knowledge. Operating scale can be decreased by reducing the geographic area the program serves or by cutting back on the number of agencies collaborating on the program.

However, Chapter 3 stresses that central to effective program performance is proactive management of the external environment, which opens the

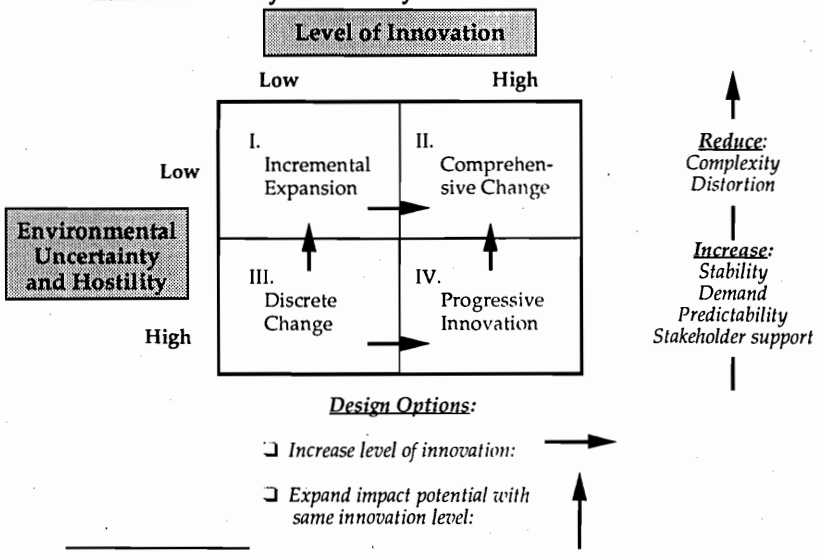
Table 4.6 Modifying Level of Innovation in Program Design



Source: Adapted from Middleton, Rondinelli, and Verspoor (1987: 113)

possibility that environmental uncertainty and hostility can, to some degree, be decreased. Table 4.7 illustrates this possibility and the design options created. Managers can use their authority, power, and influence to intervene in favor of their programs, targeting the factors enumerated in Table 4.4. For example, they can stimulate demand for the goods and services their programs produce; they can modify the mix of goods and services to increase user incentives (e.g., make the goods more "private"); they can lobby key stakeholders for more resources, more cooperation, more reliable supply of inputs, and more supportive policies and practices; and so on. By reducing uncertainty and hostility in the environment, program managers give their programs two more redesign options. They can increase their chances of success and expand their impact with the initially specified level of design innovation; that is, they can move from discrete change to incremental expansion (from Cell III to I in Table 4.7) or from progressive innovation to comprehensive change (from Cell IV to II). If significant reductions can be achieved, a second option becomes potentially available. They may be able to increase the level of design innovation and

Table 4.7 Adapting Level of Innovation in Program Design by Changing Environmental Uncertainty and Hostility



Source: Adapted from Middleton, Rondinelli, and Verspoor (1987: 114)

move from incremental expansion to comprehensive change (Cell I to II) or from discrete change to progressive innovation (Cell III to IV).

Other redesign options are to modify the management capacity, active and/or reflective, of the program's implementing organization(s) to (a) cope more effectively with environmental uncertainty and hostility, (b) manage innovation more effectively, or (c) both (see IDMC/DPMC 1988 and Hage and Finsterbusch 1987). These options are covered in subsequent chapters.

MANAGING PROGRAM DESIGN

Managing program design/redesign to promote sustainability is, as this chapter's discussion demonstrates, a complex process. It calls for program managers to exercise their analytic, managerial, and leadership skills. What kinds of mechanisms exist to facilitate managing program design? Among the most useful is an annual planning meeting (APM). The APM evolved from the implementation start-up workshop (also called a project launch workshop) used on a one-shot basis to move donor-funded projects successfully from the design to the implementation stage. Experience showed that because project designers and implementors were rarely the same set of actors, there was a need to build understanding of the project among the implementation unit once the project was authorized (Kettering n.d.). Further, because project design documents, for

all their analyses and specification of objectives and targets, are not sufficient by themselves as guides for implementation, there was also a need to translate the design into specific and detailed implementation plans (see Silverman et al. 1986). Transfer of the start-up workshop to program management led to the APM, which takes place annually (or more frequently if needed) to bring together the program management team for iterative yearly cycles of planning/design-implementation-replanning/redesign (Hart and Ingle 1986).

An APM is a workshop, usually from one to three days long, that brings together key stakeholders and program staff in a structured format on a regular basis to address program strategy, objectives, tasks, work plans and schedules, and so on. The workshop may include outside experts to provide information, concepts, or tools to deal with particular problems or issues. However, an APM is not a seminar; its focus is hands-on and practical. Products are generated in the form of strategy and/or mission statements, program and/or subproject summaries, schedules, and resource utilization plans. If issues cannot be dealt with on the spot, next steps are elaborated and task groups assigned responsibility for action.

The APM is a mechanism for bringing the relevant elements of the external environment inside the program boundaries for purposes of strategic and operational planning/management. It operationalizes the structured flexibility approach needed for sustainability and provides a forum to incorporate the multidisciplinary merger of technical, sectoral, and management specialists that leads to successful program design (see Box 4.4). As this chapter shows, program design is neither a one-shot endeavor nor something one person or a small group of people can effectively carry out "behind closed doors." Program management, including design/redesign and its iterative links to implementation, is a team undertaking. The workshop referred to in Box 4.2 was an APM for the Kenyan Agriculture Systems Support Project, which was used to manage redesign during implementation and forge an effective team out of the various groups participating in implementation (Ingle 1983).

GUIDELINES FOR PROGRAM DESIGN AND PLANNING

This section summarizes the chapter's discussion of program design in a set of guidelines. These will help program managers deal with the planning dimension of program management.

Program Design and Strategic Choice

- Assess what kind of strategies the program's implementing organizations use as the starting point for designing program content. Because programs are integrated into indigenous bureaucratic settings,

design options are constrained by what will be acceptable to (will fit with) the strategies of implementing organizations. See Table 4.1.
- Examine the level of innovation required by the initial program design in terms of predictability and the demand for new procedures, behaviors, and actions by implementors and beneficiaries. See Table 4.3.
- Assess the level of environmental uncertainty and hostility as a basis for adjusting program design to the external context. See Table 4.4 (and Chapter 3).
- Integrate the three analyses (strategy, innovation, environment) to determine the degree of fit among them. In situations of poor fit, examine the options of changing the program's design, changing the implementing organizations' strategies, influencing the environment, or a mix. Select the appropriate program design for sustainability (Table 4.5).
- Look at design changes in terms of reducing the level of innovation the program calls for, reducing the level of environmental uncertainty and hostility, and/or increasing the implementing organizations' capacity to deal with innovation and with uncertainty and hostility. See Tables 4.6 and 4.7.

The Process of Program Design

- Recognize that to a significant extent the SOPs of the national planning system and of donor agencies drive the process of program design. Learn the planning and design SOPs that the program must fulfill. What do they prescribe about plan content and presentation? What is their calendar? Can any of them be influenced to favor the program? What resources will the program need to allocate to fulfill the required SOPs?
- Proceed with program design using a team approach, one that brings together, to the extent possible, planners, technical specialists, implementors, beneficiaries, and other key stakeholders. Remember that plans are only as good as the information and analysis that go into them *and* the agreements and commitments to act on them that are generated during the design process.
- Beware of overdesign (excessive blueprinting). Treat designs as initial specifications of what to do, subject to change as learning takes place and the environment evolves. This means using a structured flexibility approach to program management, where programs advance through iterative cycles of planning/design-implementation-replanning/redesign. Use structure to meet SOPs and organize interagency collaboration; use flexibility to learn and adapt. Seek to meet targets and attain impacts, but be open to modifying the program as needed.
- Maximize the chances for sustainability by including in program design

a balance between starting up and making the transition to operations to meet short-term performance and building the capacity for long-term performance through learning and adaptation to produce future benefits.

- Incorporate capacity-building objectives into design to ensure that active capacity to perform in the here-and-now is created, as well as reflective capacity to learn to perform in the future. See Chapter 8.
- Use annual planning meetings (APMs) as a mechanism to manage the iterative cycle of structured flexibility to maintain performance and ensure sustainability.

NOTES

1. The reader is referred to the section on the importance of policies in Chapter 3.

2. Lipksy (1980), analyzing U.S. domestic social service programs, argues that from the client perspective, what the program manager does constitutes the "real" policy in practice, given that there is no other avenue through which policy is translated into services than via the actions of program staff. In the international development field, Heginbotham (1975) applies a similar view in his analysis of the implementation of community development programs in India. See also Burke's (1990) discussion of responsibility and accountability with regard to managerial discretion in policy implementation.

3. The nations of sub-Saharan Africa, where policy analysis capacity is still quite weak, are the major exception to this trend. See, for example, Steedman (1987).

4. The matrix of current/new clients and current/new services was originally developed by Ansoff (1957) and through various iterations and modifications has become a standard component of models for strategic planning. It is included, for example, in Pfeiffer et al. (1985). It serves as the inspiration for the matrix presented in Table 4.1.

5. Two of the classics on this topic are Waterston (1969) and Caiden and Wildavsky (1974). There is also a large literature on country studies of planning systems; see, for example, Benveniste (1970) on Mexico, Islam (1977) on Bangladesh, or Seidman (1974) on sub-Saharan Africa. A good summary of planning experience can be found in Agarwala (1983).

6. USAID's Logical Framework was conceived to serve as a heuristic tool to help design projects or programs that explicitly linked the activities they undertook and the outputs produced with a larger development objective, originally to provide a basis for evaluation. The intent in using the Logical Framework for design was to move beyond thinking of projects and programs as collections of activities whose relationships to development outcomes remained vague, and to focus upon analyzing the hypothesized cause-and-effect linkages between undertaking a set of activities and desired solutions to development problems. In practice, within USAID, the Logical Framework has become a pro forma SOP, often completed at the end of project design and attached as the final annex to the Project Paper.

7. See Caiden and Wildavsky (1974) for an in-depth discussion of budgeting in

developing countries.

8. Early empirical evidence for the importance of process to successful implementation emerged from a large study of thirty-six development projects conducted by Development Alternatives, Inc., with USAID funding. See Morss et al. (1976).

9. This approach has generated a certain amount of controversy and debate in the development field. Some have accused its proponents of dressing up a participatory ideology and value orientation toward community empowerment as an empirically based methodology for effective development action. Process partisans have responded by challenging the supposedly value-free assumptions of blueprinters that scientific analysis can generate solutions to complex problems that involve both technologies and people. Honadle and VanSant (1985: 101) refer to such assumptions as the "myth of the technical fix."

10. David Korten, the best-known of the proponents of the process approach, has shifted his attention to private voluntary and nongovernmental organizations after several years of working with large donor organizations trying to reorient them toward the process approach. He thinks that the solution to the problem of lack of fit between the process approach and developing country public sector and international agencies "lies in the direction of looking to organizations which are inherently less bureaucratic in their structures and operations to perform the catalyst role [for developing a learning process]" (personal communication). See Korten (1987) and Korten and Uphoff (1981).

11. The development and refinement of the structured flexibility approach was begun out of the applied research supported by USAID through the Performance Management Project and carried out by DPMC and IDMC. Earlier iterations were called the guidance system improvement approach and the performance improvement approach; see Solomon et al. (1981) or Ingle and Henson (1984). For reviews of the approach see Brinkerhoff (1986a) and Rondinelli (1987). An interesting comparative discussion that addresses the same issues under the term "a feasibility testing approach" can be found in Hoppe et al. (1987).

12. This kind of planning recognizes that program management techniques must explicitly recognize the special characteristics of trying to achieve outcomes in developing country environments, something that has been missing in much of the transfer of management technologies from the developed to the developing world. See Kiggundu et al. (1983) and Kearns (1988).

13. The shift in emphasis in using the structured flexibility approach between project and program management has its analogue in the U.S.-planned change and management improvement field where a distinction has emerged between OD (organizational development), applied to a single firm or agency, and TD (transorganizational development), applied to a network of member organizations. The relative mix of attention to increasing flexibility and creating structure called for in OD and TD closely parallel working in developing countries on project versus program management improvement. See Cummings (1980 and 1984).

14. For more on this point, see Rondinelli (1983a), Brinkerhoff (1986a), Middleton et al. (1987), and Rondinelli et al. (1990). This does not mean that all public sector management tasks in developing countries require such capacities. Routine administrative tasks and repetitive goods and services production, where needs are known, technologies are well established, and supply and demand are relatively con-

stant, can be successfully handled without high degrees of flexibility and adaptation.

15. This section draws on Middleton, Rondinelli, and Verspoor (1987: 32-35) and Hage and Finsterbusch (1987).

16. These design variants are distilled from a large amount of literature, both theoretical and applied, some of which has been cited earlier in connection with the investigations of the blueprint approach to design and elaborations of alternative design and implementation methodologies. The discussion here is based on Brinkerhoff et al. (1990), Brinkerhoff and Hopkins (1990), Hage and Finsterbusch (1987), Middleton, Rondinelli, and Verspoor (1987), Verspoor (1989), Honadle and VanSant (1985), and Rondinelli (1983a).

17. It should be remembered that assessments of environmental uncertainty and hostility are quite program-specific. In general terms, the context found in most sub-Saharan African countries is characterized as highly uncertain and hostile to development efforts. In specific terms, however, this is dependent upon the particulars of the program. In the school construction case, the good being produced—a school—shares many of the characteristics of a private good (excludability of use, etc.) and thus offers users incentives to contribute to construction and maintenance given that they will benefit directly. Because education is highly desired by clients, a high level of demand for the good exists. Further, governments agree that education is a service they should provide, so there is little opposition to building schools. All these features contribute to creating an environment with lower levels of uncertainty and hostility for the school construction program. Uncertainty is introduced mainly in the form of weak management capacity to implement the program.

18. The following discussion draws upon Middleton, Rondinelli, and Verspoor (1987: 109-115) and various sections of Hage and Finsterbusch (1987).

5

Choosing How to Organize: Program Structure

For program managers, another principal target of looking in is the structure of both the program's implementing organization(s) and the program itself. Since programs are integrated into national bureaucratic settings, the structure of the individual implementing organizations or units is important. Program structures, though, are interorganizational, because responsibilities for the various components of the program are shared among several national organizations. Structure influences information flows and the context and nature of human interactions. It allocates power, authority, and responsibility; channels collaboration; specifies modes of cooperation and coordination; shapes incentives and inducements for behavior; and prescribes levels of formality and complexity. In short, structure shapes who does what and how, who knows what, and who reports to whom.

Organization and program structures create enduring, predictable patterns of interaction among actors undertaking activities in particular settings (though program structures are more dynamic and subject to change). Structures provide frameworks for managerial processes and action. The configuration of structures in a given context shapes the incentives that program staff and stakeholders confront and emits cues prompting certain kinds of behaviors and outcomes over others. Program structures are a blend of (a) conscious design to achieve program strategies, objectives, and activities and (b) self-selection by entities that perceive a role for themselves in relation to program content (Hjern and Porter 1981). In turn, program structures exert a powerful impact on strategy formulation and program design/redesign.

Program structures are distinct from organizational structures, having certain characteristics that derive from the nature of programs (see the discussion in Chapter 2). Although programs are linked to existing organizations, they are rarely implemented solely by one entity. This means that program structures are composed of pieces of various organizations, sometimes combining public and

private entities. The implications of this fact for program managers are highlighted in the discussion that follows.

This chapter explores structure by taking the program itself as the dominant focus. It confronts the issue of how much latitude program managers have in choosing how to organize their programs. The analysis looks at matching structure with strategy, degree of innovation, and environmental conditions. The chapter concludes with a set of guidelines. As a prelude to this exploration, though, we begin by looking more closely at what structure is.

WHAT IS STRUCTURE?

In simple terms, structure is defined as the way a purposive entity (for example, a private firm, a government agency, a development project, or a program) is set up to accomplish its mission and goals—that is, the choices made in (a) dividing up its tasks into various work groups and (b) specifying how the activities of the work groups are coordinated. These two basic elements of structure are referred to as differentiation and integration (Lawrence and Lorsch 1967). Many people think of structure as completely described by an organization chart, with its boxes (differentiation) and the lines joining them (integration). But structure is more than just the organization chart; it also encompasses the roles, responsibilities, and relationships, both formal and informal, among the units and individuals that constitute the organization or program.

A vast quantity of empirical research has been conducted on the structure of individual organizations, and a wide range of dimensions of the structure variable has been elaborated. Nonetheless, there is a high degree of convergence in the dimensions identified.[1] Here we will look at the following: authority, hierarchy, formality, centralization, and complexity, with the aim of first offering a definition and then identifying what is particular to programs on each of these dimensions.

Authority. This dimension encompasses (a) the extent of reliance on authority relationships and (b) the basis on which authority rests. The former can be thought of as varying between high, where the dominant pattern is of relationships that derive from differential power allocations (superior/subordinate), and low, where the pattern stems from exchange relationships voluntarily entered into. Structures that rate high are often termed authoritarian, whereas those that rate low are called collegial. Authority basis can be characterized as ranging from position-based to skill/knowledge-based. Position-based authority allocates governance responsibility according to the pattern of superior/subordinate relationships in the organization. Skill- or knowledge-based authority derives from who knows best how to do what needs to be done. As a general rule, authoritarian structures tend to be position-based and collegial ones skill-based.

In program structures, there are fewer authoritarian relations and more collegial ones than in organizations. Because programs are implemented in most cases by units of several organizations, whose participation in implementation is determined by the program's rationale not the organizations', program structures reflect primarily what those units bring to implementation in terms of knowledge, skills, and resources.

Hierarchy. Hierarchy refers to how "narrowly" or "flatly" a structure is constructed. Narrowness or flatness derives from the number of organizational levels in the organizational pyramid; span of control, that is, how many subordinate units (or individuals) a given supervisory unit (or individual supervisor) oversees; and intensity of supervision. Narrow hierarchies exhibit high numbers of organizational levels, narrow spans of control, and close supervision. Flat ones have few levels, wide spans of control, and loose supervision. The former also tend to be associated with authoritarian superior/subordinate relationships and an emphasis on vertical information flows and reporting. In contrast, the latter are usually associated with collegial reporting relationships and a concentration on horizontal information flows.

Program structures tend toward the less hierarchical end of the spectrum. This feature emerges from the same dynamic that influences degree of authority, namely, that units participate in program implementation as a function of the program's rationale, which in most instances cuts across the hierarchy of any single participating organization's structure.

Formality. The degree of formality in structure refers to the extent to which the structure is described by formal, written rules that detail missions, objectives, differentiation among units and subunits, integrating relationships among them, and characteristics of the roles of unit and subunit incumbents (job descriptions). Highly formalized structures generally possess large numbers of explicitly stated SOPs, cost and quality control mechanisms, and specialist expertise; informal structures have fewer SOPs (those they have are often implicit or tacit), rely less on cost and quality control mechanisms, and employ more generalists.

Program structures tend to be less formalized than organizational ones. Programs frequently bring together organizations or units that have not worked together before. Thus, there are no preexisting SOPs to shape interactions according to formalized paths. Because program structures emerge from the initiatives, negotiations, and decisions of individual organizations, units, or persons in relation to the program's rationale, they are less likely to be formally designed and are more likely to be informal, iterative, and evolving.

Centralization. Centralized structures concentrate decisionmaking and autonomous operational authority in a small number of individuals or units. Decentralized structures disperse authority widely among individuals or units.

Decentralization can take several forms, such as deconcentration (establishing field offices under central control), devolution (allocating authority to the field offices), and delegation (transferring authority to independent organizations) (Rondinelli 1981, Silverman 1990).[2] Centralization confers certain managerial benefits, e.g., speed and ease of decisionmaking, quick mobilization of resources, unity of command, and consistency of action. On the other hand, it also entails some disadvantages, such as a tendency to overload individuals and units at the center, poor ability to perceive opportunities and threats at the periphery, weak capacity to respond on a timely basis to external changes, and risk of discouraging individual initiative and problem solving.

Although the individual organizations or units involved in program implementation may be relatively centralized, program structures themselves, because of the cross-cutting, multiactor nature of programs, tend to be decentralized. Authority for program decisions can rarely be restricted to a single, central locus. Some degree of devolution and delegation, or deconcentration at the very least (one of the characteristics of programs is operations in many different sites), is a hallmark of program structures.

Complexity. Complexity can be conceived of as a composite of (a) the number of sites where organizational activities are conducted, (b) the differentiation among unit and subunit structures, (c) the extent of interdependence among the units and subunits, and (d) the variation in types of specialists employed by the organization. The most complex structures operate in many sites, are composed of units and subunits that vary widely in how they are set up and operate interdependently, and are staffed by a wide range of specialists. Conversely, less complex structures operate in few sites, contain relatively homogenously structured units and subunits that function independently, and employ only a few different types of specialists.

As is evident from the characteristics of programs, complexity is a key feature of program structures. The fact that, over time, program structures are more dynamic and shifting than individual organizational structures adds to their complexity.

DIFFERENT STRUCTURAL FORMS

These dimensions of structure cluster into recognizable patterns that describe particular types of organizations.[3] The array of different types is commonly distributed along a continuum, whose poles represent mirror opposites. At one end is the mechanistic organization. The quintessential bureaucracy illustrates the mechanistic: narrowly hierarchical, highly centralized, routinized, rules-driven, position-based in authority, inward-looking, and so on. At the other end is the reflective/adaptive, or organic, organization. The academic research institute

Table 5.1 Characteristics of Mechanistic and Organic Structures

	MECHANISTIC	*ORGANIC*
Planning	Long-range comprehensive analysis for productivity and efficiency	Short-range, contingent alternatives for incremental trial-and-error adjustments
Decisionmaking	Centralized in top managers and planners	Decentralized implementation of guiding objective; staff take initiative in identifying and correcting problems
Authority	Hierarchical chain of command	Consultative, shared and collegial
Basis of Authority	Position	Expertise
Leadership	Orders and Commands	Facilitative, supportive, nonhierarchical
Coordination	Rules and Regulations	Participatory and negotiated
Communication	Vertical, formal, and top-down; used for control	Interactive and informal in all directions, used to share information
Monitoring and Evaluation	Staff performance controlled by adherence to plan, rules, and job description; process is periodic	Staff provide self-correction and guidance based on objectives; process is continual and adjusts strategy and implementation in light of performance
Staff Placement and Promotion	Based on specific functions to perform, loyalty, and seniority	Based on broad objectives with flexibility in specific functions performed and achievement of objectives; includes employee participation
Organization of Subunits	By specialized function into permanent units tightly coordinated by rules and regulations	Different functions grouped variously by geographic areas, special clients, different products, or special projects, often related to a central coordinating and facilitating function by a matrix; units change to meet emerging conditions and opportunities; staff work in more than one unit; units operate semiautonomously with delegated performance responsibility

exemplifies this pole: collegial, decentralized, experimental, problem-driven, knowledge-based in authority, outward-looking, etc. Table 5.1 summarizes these two organizational archetypes.

Perhaps the clearest lesson emerging from management research and practice is that there is no single best way to organize, and its corollary, not all ways of organizing are equally effective. No single type of structure will provide an appropriate framework for managerial action in all situations. Mechanistic structures are appropriate for accomplishing routine and repetitive tasks using known technologies in relatively stable and nonhostile environments. Organic

structures are called for when tasks are innovative and complex, technologies are imperfectly understood or new knowledge is required, and environments are uncertain and turbulent. Mechanistic structures can be effectively managed using relatively mechanical (blueprint-style) implementation and management strategies, which, once designed and functioning, consume fewer managerial resources and can be operated with a lower skill level. Organic structures tend to be management- and skill-intensive.

Real-world organizations, as opposed to pure types, tend to fall somewhere between the mechanistic-organic poles. It is rare to find an organization, either public or private sector, that exhibits all the features of mechanistic structures and none of those associated with organic ones, or vice versa. What kinds of structures do development managers actually find in the realm of action in developing countries? Along the mechanistic-organic continuum we can identify three structural types that managers encounter: functional, divisional, and matrix.

Program structures are not organizations. As we have noted, they are made up of parts of many organizations or units (conversely, organizations can be viewed as made up of parts of many programs). The parts of these organizations comprising a program structure manifest characteristics that allow them to be classed as functional, divisional, or matrix. The aggregation of these characteristics determines where the program structure falls on the mechanistic-organic continuum. From the previous discussion of the components of structure, however, it is apparent that program structures, in response to the nature of programs, cluster toward the more organic end of the spectrum. Thus, a mechanistic program structure will exhibit more organic features than a mechanistic organization.

Functional Structures

Functional structures divide tasks by specialty, with separate units created to deal with each one. Integration is achieved by vertical reporting relationships to a central, apex coordinating unit, whose administrators guide the organization using SOPs. Functional structures embody Max Weber's influential conception of bureaucratic efficiency and are widely used in organizations both in the developed and developing worlds. For example, a typical planning ministry structure in a developing country consists of functional units that report to a director general's office that, in turn, reports to the minister. Examples of such units are regional planning, macroeconomic analysis and planning, project identification and design, project monitoring and evaluation, donor coordination, and administration and personnel.

These structures perform effectively for relatively routine production and

service delivery tasks using simple, known technologies in stable environments where consumer/client demand is strong and unchanging. Functional structures generate economies of scale and are useful for large organizations seeking to maintain efficient production (low cost per unit of output) where little innovation is required. They run into difficulty in situations where (a) the environment becomes unstable and uncertain, (b) technological innovation is required, (c) production/service delivery units are geographically dispersed, and/or (d) increases in size of the organization create a proliferation of subunits, each with additional vertical chains of command.

Divisional Structures

These structures establish an organizational framework using differentiation criteria other than task, for example, geographic, sectoral, product, client group, market segment, and so on.[4] Typically, each division (department) is composed of a set of functionally specialized subunits. To continue the planning ministry example, one alternative divisional structure would entail setting up three divisions by broad sectoral category: production, infrastructure, and social sectors. Each of these divisions would then have a specialized set of functional units, such as those enumerated above.

Divisional structures disperse authority away from the unitary apex of the organizational pyramid, thereby facilitating some measure of decentralization and introducing some administrative economies among the management tasks of the organization. For example, a purely functional structure for a ministry of agriculture places the entire responsibility and authority for sector activities, both strategic and operational, at the ministerial level. A divisional structure distributes that responsibility and authority, bounded by region or province or by product/service (extension, research, livestock, credit, fertilizer and seed, etc.). This increases the ministry's ability to handle information and feedback, deal with innovation, and fulfill specific client group needs. It potentially frees the highest level of the organization to concentrate more upon strategic and cross-cutting issues and increases the effectiveness of the operational components. Failure to deal with the strategic side of development management is a key deficiency in developing country organizations (Kiggundu 1989).

Divisional structures have the capacity to operate effectively in more uncertain and changing environments than functional structures. They can handle somewhat more innovative technologies, larger quantities of information and feedback, and undertake some measure of "customization" of product/service to different client groups. When conditions begin to put pressure on the divisional structure's capacity to perform, the response is often to move toward some form of matrix structure.

Matrix Structures

Matrix structures encompass a broad set of organizational forms, ranging from slightly more toward the organic pole of the mechanistic-organic continuum than divisional structures to very close to the pure organic (see Davis and Lawrence 1977).[5] The most commonly found matrix form in developing countries is called a temporary overlay. In this case, a functional/divisional organization grafts a temporary unit onto the existing structure and staffs it by seconding personnel for specified time periods. This is the classic project implementation unit (PIU) model. This kind of structure adds to the organization a capacity to handle increased levels of innovation on a project-by-project basis and to collect and process more information on specific activities or areas. This facilitates learning and adaptation with partially known technologies in changing and uncertain environments, for example, the familiar progression from pilot to demonstration to replication projects.

A more organic variant of this matrix form is the permanent overlay. This structure takes the complementary organizing mode of the PIU and makes it one of the organization's SOPs. The permanent overlay structure institutionalizes a blend of authority based primarily on position (members of the functional/divisional structure) and secondarily on knowledge (members of the project team). It facilitates a clearly delineated degree of decentralization while bounding the authority of the project manager by specifying its limits vis à vis the formal functional divisions.

The full matrix structure accords equal authority to the functional divisions and the project units, which places organization members in a situation of formally reporting to two bosses. These structures feature high levels of collegiality, knowledge-based authority, flexible procedures, negotiation and conflict resolution mechanisms, and significant decentralization. They are the form most capable of dealing with highly uncertain environments and innovative technologies, customizing products and services to various clients, handling large quantities of information, and adapting and learning. To work effectively, however, these structures require high levels of communication, vertical and horizontal information sharing, and coordination. These requirements can impose a significant management burden; staff must be willing and able to operate proactively on their own initiative and top management must manage in a style that focuses on delegation and getting results rather than on control and following official procedures.

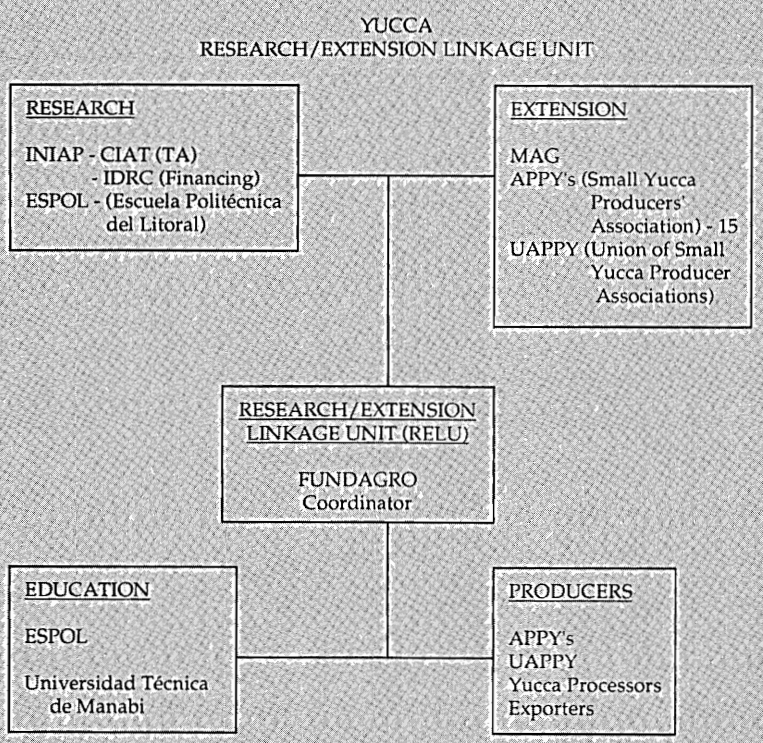
PROGRAM STRUCTURE AS A MATRIX RELATIONSHIP

Whatever the structural features of the individual parts of the organizations involved in program implementation, or of the program's supervisory or man-

Box 5.1 Ecuador's Foundation for Agricultural Development

As part of its effort to restructure the national economy, the Ecuadorian government sought to reorient the agriculture sector toward a science-based development strategy, rather than simply bringing more land under cultivation using existing technologies. A key institutional innovation to implement the change was the creation of the Foundation for Agricultural Development (FUNDAGRO), established in 1987 as a private entity whose purpose is to stimulate improvements in agricultural production and productivity by mobilizing research, extension, and education resources around high-priority commodities for the Ecuadorian economy. FUNDAGRO manages three research and extension programs: coffee, yucca, and dairy production. The foundation's programs are implemented by partnerships of private sector firms and associations, public sector agencies, international donor organizations, and international research centers.

FUNDAGRO itself is a small organization of seven technical professionals and eleven support staff. It has a simple internal structure, with an executive



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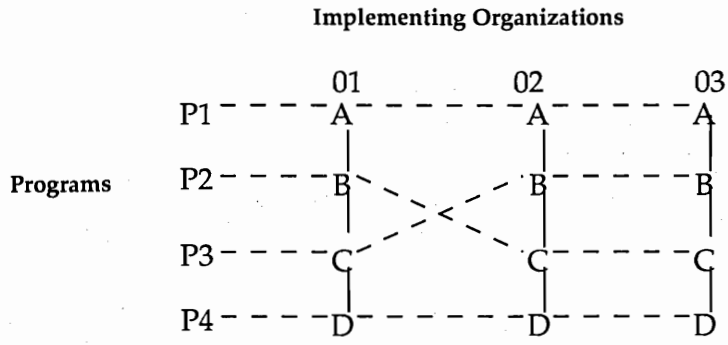
director in the leadership slot, a program director under him, and five coordinators, four of whose responsibilities are allocated functionally: research, extension-education, evaluation, and training; and one is assigned a particular project, the agriculture college project. Support staff are divided between an office management unit and a regional liaison unit to support the coffee and yucca programs, which are located on the coast. Each of the three priority programs is structured around a research-extension linkage unit (RELU) that coordinates the actions of all of the organizations and agencies involved in the program. The diagram illustrates this arrangement for the yucca program.

FUNDAGRO and its programs constitute a matrix structure in which foundation coordinators fulfill functional responsibilities and at the same time have programmatic responsibilities. This latter set of responsibilities sets up program structures that incorporate units of a variety of external entities, thus representing a real-world example of the schematic in Figure 5.1.

Source: Author, from USAID and FUNDAGRO Internal Reports

Figure 5.1 Program Structures as Matrix Relationships



Program Structural Matrices:

Program 1 = 01.A + 02.A + 03.A

Program 2 = 01.B + 02.C + 03.C

Program 3 = 01.C + 02.B + 03.B

Program 4 = 01.D + 02.D + 03.D

Source: Adapted from Hjern and Porter (1981)

agerial body, it is clear that program structures, whose boundaries are defined (however formally or informally) by the objectives and scope of the program, exist in a matrix relationship with their implementing agents. This is illustrated in Figure 5.1. As the graphic shows, program structures, shaped by the definition and nature of programs themselves, share some form of matrix configuration. This means that program managers must cope with, to at least some degree, the managerial implications of the matrix structure, outlined above. Box 5.1 provides an example of a program matrix from Ecuador.

STRUCTURING PROGRAMS: A COMBINATION OF MANAGERIAL DESIGN AND FUNCTIONAL ALLOCATION

Appropriate structure cannot ensure performance; it is rather a prerequisite to performance. Inappropriate structure, though, is practically a guarantee of nonperformance. As Drucker (1977: 165) says, "it produces friction and frustration, puts the spotlight on the wrong issues, and makes mountains out of trivia." Getting program structure right is more complex than for an individual organization because, as we have noted, program rationales and purposes cut across those of the participating organizations. This means that program managers have limited ability to impose new structures on implementing units or modify existing ones. Managers in individual organizations are relatively free to design appropriate structures to achieve fits between structure and strategy, the goods and services to be produced, the tasks (technology) necessary for production, and the environment. Program managers, on the other hand, have relatively less latitude to design their own structures. They must build appropriate program structures by allocating tasks and activities among the participating entities as a function of the actors' existing structures. This allocation achieves fits by distributing the program's different components among those actors best suited structurally to carry them out with little or no modification. In this sense, program structures, in the words of Hjern and Porter (1981: 219), are

> allocative and administrative entities. They fall between market and bureaucratic rationalizations. Goods [and services] are allocated through clusters of autonomous and semiautonomous actors—as in a market but unlike a bureaucracy. Objectives are set, plans are formulated, resources made available at the right place and time, services are provided, performance evaluated—as in a bureaucracy but unlike a market.

Structuring by design and by allocation are both subject to certain limitations that restrict managers' degrees of freedom.

Degrees of Freedom and the Program's Host Organizations

In the ideal, program management begins with strategy and design and then moves to structure. In reality, though, managers rarely have the proverbial "clean slate" upon which they are free to design and develop structures for their programs. As integral parts of ongoing organizations, programs, for better or for worse, are enmeshed in the structure of those organizations. As entities whose boundaries extend across several organizations, programs partake of the interorganizational network of the bureaucratic setting. Thus, past structural choices and resulting configurations impinge upon program managers' abilities to structure their programs, thereby limiting the degrees of freedom they pos-

Box 5.2 The Structure of Portugal's Program for Limestone, Fertilizer, and Forages

The Program for Limestone, Fertilizer, and Forages (PROCALFER) was funded by USAID to help Portugal improve its agricultural production during the period 1980-1985. The program's structure was highly complex, involving extensive linkages among the central, regional, and field offices of the Ministry of Agriculture and Fisheries, plus an agricultural credit agency, farmer cooperatives, and private sector fertilizer manufacturers and distributors. A general coordinator held overall management responsibility for PROCALFER, presiding over a coordinating committee of full-time representatives from each of the ministry's functional divisions: research, extension, forestry, and planning. The divisions implemented the program's different components through their regional offices in the country's seven regions. Within each regional office a part-time coordinator served as the program's link between center and field. PROCALFER's field operations were conducted through the existing structure of subregions and agrarian zones. The latter were the ultimate contact point with the farmers.

Although the central coordinating committee was responsible for program strategy, guidance, and oversight, implementation authority bypassed the committee structure, flowing from the minister to the regional directors to local extension officers. PROCALFER staff had no power to set policy, make decisions, or allocate resources. Program funding was handled as part of the ministry's standard budget process, with no separate accounting for PROCALFER activities. Operating within the highly formalized and legalistic structures of the Portuguese public sector, the program quickly ran into trouble.

The existing ministry structure imposed limitations on the program that jeopardized its ability to function successfully. The solution was to introduce management improvements to (a) widen PROCALFER's operating latitude, in effect giving it more degrees of freedom, by modifying its structure to achieve a better fit between its responsibilities, tasks, and authority, and (b) provide participating staff with the managerial skills and tools to operate effectively in a changed structure. See Box 8.1 for more details on this solution.

Source: Brinkerhoff and Ingle (1989)

sess. For example, Paul (1982: 116) notes that "the tendency of most governments will be to encourage their program organizations to adopt centralized structures similar to those of their ministries and departments."

This has two practical implications. First, program structures are likely to emerge as hybrids that combine various features of the structural forms reviewed above as a function of the degrees of freedom individual program managers have in their particular circumstances. Program contexts are not static, though, as Chapter 3 makes clear. Because programs endure over long periods of time, opportunities can surface to modify and improve program structures during implementation. Second, as noted in Chapter 4, program design may need to include some structural changes in the program's participating organizations to improve performance capacity. Specifically, their structures may require modifications to help them deal more effectively with environmental uncertainty and hostility, with program partners whose inputs they need but over whom they do not have authority, and with managing higher levels of innovation. Box 5.2 illustrates the degrees of freedom issue for structural design and its practical implications for PROCALFER in Portugal.

Degrees of Freedom and Allocation of Program Functions

Structuring programs through allocation of tasks and activities is similarly constrained by prior choices and existing allocation patterns. These constraints can be legal—for example, where certain kinds of organizations have legal limitations on the kinds of activities they can engage in. This constraint often surfaces for programs that aim at transferring responsibilities for service delivery to local organizations, such as water users' associations. In some countries, these associations do not have statutory authority to assess fees, collect revenues, or enter into contracts (see Uphoff 1986b). These constraints may be bureaucratic—for example, where sectoral agencies exert pressures to funnel all activities dealing with their particular sector through them regardless of whether they have the appropriate capacities. USAID's agroforestry program in Haiti confronted this situation when the Haitian government argued that the program should be structured around the ministry of agriculture rather than around private voluntary organizations as planned, because the program's content fell within the purview of the ministry's official sectoral mandate (Murray 1986).

Another type of constraint arises in that organizations and their members build up skills in areas where they have already worked; they may be less competent if allocated tasks they are unfamiliar with. This constraint confronted Cameroon's fertilizer privatization program, whose structure allocated to local importers the tasks of importing and distributing fertilizer under the newly privatized system. The local importers' competencies, however, had been devel-

Box 5.3 Contracting Out in Honduras

During the first half of the 1980s, USAID funded programs in three sectors that experimented with government contracting out to private sources for service delivery. These included low-income housing and urban upgrading, rural primary school construction, and rural road construction and rehabilitation.

In 1987, USAID commissioned a study to determine through comparison with direct public sector implementation whether the privatization efforts had in fact yielded the benefits and economies expected. Many of the findings point to the importance of supporting factors relating to the public sector and market conditions.

The study found, first, that the quality of outputs—shelter, schools, or roads—was approximately the same, whether produced by contracting out or direct administration. Both methods relied on virtually identical construction techniques and material. In the case of rural school construction, direct administration achieved comparable quality due to active community participation.

Second, the time needed to complete program outputs was essentially the same for the two methods. Although some evidence suggested that private contractors were slightly faster, they were delayed by government regulations on contract awards. The public bureaucracy was slow in conducting the contract award process.

Third, contracting out did not result in substantial reduction in construction costs. Cost reduction in the private sector is usually the result of market competition, technological or managerial innovation, and/or lower employee pay. However, in Honduras these factors were absent or weak. There was little competition among contractors. Private firms had little incentive to innovate to reduce costs because contract awards were guided by a reference pricing system set by the government. Also, private sector employee compensation mirrored public wage scales, including conformity with the payment of a thirteenth-month supplement to annual salary mandated by law for public employees.

The 1985 Honduran law governing contracting provided a positive legal setting in support of stable and mutually acceptable relationships between government and private contractors. The legal framework by itself, however, was not enough to generate either cost savings or quality increases. The study suggested the following additional actions to improve the performance of contracting out:

- Streamline bureaucratic procedures for awarding contracts to shorten the time required between bidding and award.
- Change the reference price system to provide incentives to reduce the cost of inputs.
- Encourage more use of manual labor and labor-intensive construction techniques among contractors.
- Reassign or eliminate public employee positions that become redundant when activities are contracted out.
- Use performance standards instead of specification codes for construction to encourage firms to develop technological and/or managerial innovations.
- Restructure the market to increase competition.

Source: Moore et al. (1987)

oped under the previous public sector monopoly and did not readily translate to the tasks needed in the new private sector setting (Truong and Walker 1990).

One set of allocation patterns that has received a large amount of attention over the past several years concerns the distribution of socioeconomic development tasks between the public and private sectors. As many observers have noted, most developing countries have tended to favor the public sector as the venue for action (see Russell and Nicholson 1981, Moore 1987a, and Nicholson 1988). The reasons for this are varied, including, for example: (a) distrust of the private sector and profitmaking motives, (b) ideological stances that stress the primacy of the state in the economic realm, (c) centralization of economic activity to combat ethnic divisiveness (particularly in Africa, see Bates 1981), and (d) opportunities public monopolies afford for bureaucratic rent-seeking by those in positions of power.[6]

Donor agency emphasis on privatization (Berg and Shirley 1987, Hanke 1987), growing public budget deficits (Morrison 1986b), the demonstrable success of middle-income Asian countries, and continuing worldwide experimentation with private sector approaches to development (Roth 1987, De Soto 1989) have changed this pattern. Development programs increasingly include private sector and/or private voluntary organizations within their implementation structures. However, there remain some important constraints on program structures to incorporate private sector entities effectively. These limitations stem from the absence of ancillary factors needed for the private sector to participate effectively in development, such as capital markets, property rights, availability of information and contracting mechanisms, appropriate skills, labor relations, and so on (see Hageboeck and Allen 1982, Williamson 1985, Adams and Vogel 1986, Morrison 1986a, and Austin 1990). Box 5.3 summarizes a case of contracting out for public services in Honduras, illustrating the importance of such supporting factors to achieving the anticipated benefits of privatization.

CHOICES FOR PROGRAM STRUCTURE

Despite the constraints on program structure, those impinging on either design or allocation, program managers do have some choices in structuring their programs. In part, these choices emerge from the "underorganized" interstices in the network of organizations that make up a program's implementation structure (Cummings 1984). They are underorganized because the members of the network have rarely all worked together in the past and thus do not have established patterns of collaboration. Choices also emerge as a function of the negotiations and agreements reached during the program design phase (see Chapter 4).

Our contingency orientation guides us to consider program structure choic-

Table 5.2 Contingencies for Program Structure

Program Design Strategies	Incremental Expansion	Discrete Change	Comprehensive Change	Progressive Innovation
Level of Innovation	Low	Low	High	High
Level of Environmental Uncertainty & Hostility	Low	High	Low	High
Program Structure:				
Active (prod'n) Component	Mechanistic	Mechanistic	Organic	Organic
Reflective (learning) Component	Mechanistic	Organic	Mechanistic	Organic

es in light of achieving a fit between structure and strategy, tasks (innovation), and environment, with particular attention to the pattern of incentives created. As the preceding discussion indicates, adjusting structure concerns the mechanistic-organic continuum, moving either to make structures more mechanistic or more organic. Chapter 2 noted that one of a program manager's functions includes building the capacity of implementing organizations. This means that program structures need to support effectively both producing the goods and services a program's plan specifies and learning from implementation experience to increase performance capacity in the future. Recall the discussion in

Chapter 4 of the active and reflective sides of capacity. Program structures will vary in the extent to which they are mechanistic or organic to fit with the active and reflective task dimensions that constitute implementation, but to different degrees for each type. Table 5.2 presents the contingencies for program structures, organized around the four strategies appropriate for differing levels of task innovation and of environmental uncertainty and hostility that were discussed in Chapter 4: incremental expansion, discrete change, comprehensive change, and progressive innovation (see Table 4.5). Although the table divides program structures into four types, the classifications should be viewed as gradations encompassing significant variation with some overlap rather than as discrete, well-defined categories. The table is intended as a rough heuristic to synthesize some of the vast complexity involved in structuring programs.

"Double" mechanistic structures. This category of program structure fits a strategy of introducing an innovation and gradually expanding its application to other sites where the degree of innovation introduced is relatively low and the environment is relatively stable and benign. In this situation, both the production and learning components of the program are structured relatively mechanistically. Since production does not involve a high level of innovation, most tasks and the technology employed are known, production targets can be clearly specified in advance, and the program's production component can be structured in a formalized, hierarchical way. Discrete subelements of production can be easily allocated to appropriate implementing units that can operate relatively independently. Similarly, the program's learning component can also be relatively well defined and structured, perhaps centralized in a monitoring and evaluation (M&E) unit attached to the program management unit, which would oversee M&E staff from other participating organizations. This program structure emphasizes SOPs and clear division of labor and responsibilities for action and reflection.

Mechanistic-organic structures. This mixed structure facilitates program performance in cases of discrete change strategies appropriate for relatively low levels of innovation in uncertain and hostile environments. The program's production component is structured relatively mechanistically, as befits a known technology and tasks that do not depart significantly from current practice. However, because of the nature of the environment, the learning component is structured organically. It concentrates on looking outward, identifying and tracking stakeholders, feeding back information from many external sources to many points internal to the program, using temporary teams, and so on. This variant of program structure has more formally constituted production units with highly developed SOPs, while the reflection and guidance activities are more informal, complex, collegial, and experimental to fit the need of learning how best to deal with a difficult environment.

Organic-mechanistic structures. Like the previous category, this type of program structure blends the mechanistic and the organic. Here, however, it is the active component that is organically structured, with the reflective component displaying relatively more mechanistic features. This structure fits comprehensive change strategies where the level of innovation is high but environmental uncertainty and hostility are relatively low. A good example is the FUNDAGRO program, described in Box 5.1. The active component of the program, fitted to the complex tasks of agricultural production improvement, is structured in organic fashion around the research-extension linkage unit (RELU) and its informal, "dotted-line" links to international and national research institutes and producer entities. The program's reflective component, as represented by FUNDAGRO itself, has a simple mechanistic structure with two leadership slots supervising coordinator positions whose responsibilities are divided by function: research, extension-education, evaluation, and training.

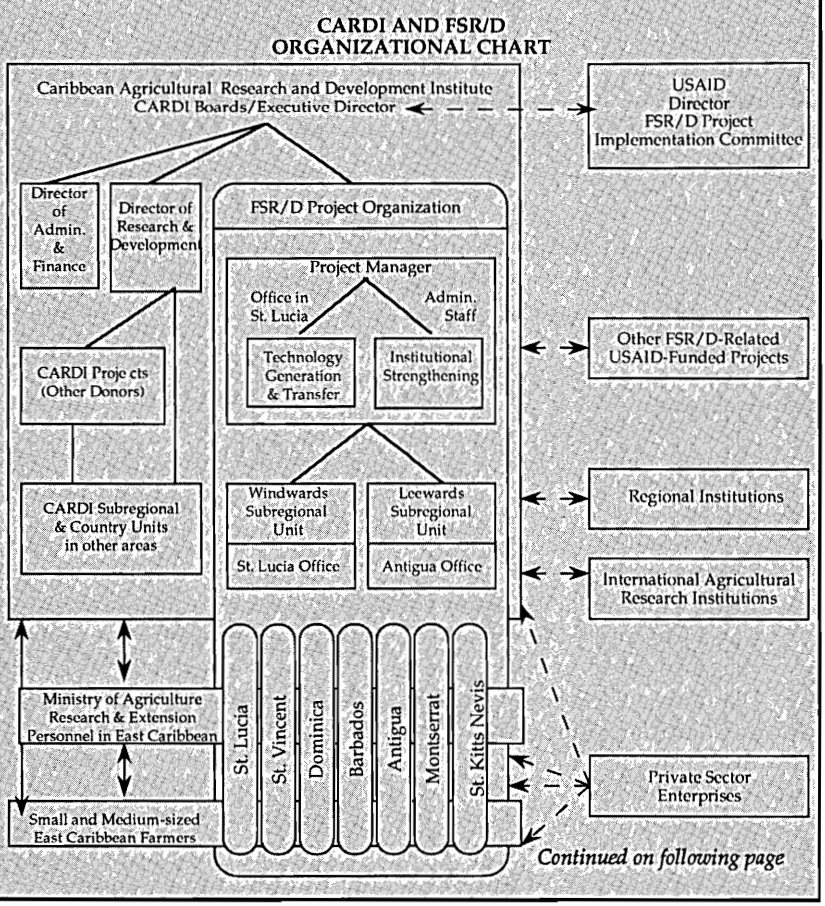
"Double" organic structures. This kind of program structure is suited for a progressive innovation strategy, which is appropriate for highly innovative endeavors in turbulent and relatively hostile environments. Both the action and reflection components contain predominantly organic structural features, such as high decentralization, a wide variety of specialist staff, collegial interactions, significant complexity, shifting leadership and task reponsibilities, and a strong, outward-looking orientation. CARDI's Farming Systems Research and Development (FSR/D) program, overviewed in Box 5.4, exemplifies this structural variant.

Summary. It should be remembered that the entire range of variation in program structures from mechanistic to organic falls to the more organic end of the continuum than single organizational structures. This feature is a function of the fact that programs, by their cross-cutting, multiactor nature, stand in a matrix relationship to any single organization. Matrix structures, even if composed of relatively mechanistic subelements, require high levels of communication and interaction to manage effectively the information and resource sharing and/or the joint action that program implementation calls for. This is particularly true for the many "dotted-line" relationships that program structures contain, shown in the real-world examples presented in the boxes.

As noted at the beginning of this section, the program structure contingencies can serve only as a rough guide, signaling which components of structure may require more of the program manager's attention. All of the structural variants, including the "double" mechanistic, require increased capacity of implementors to handle innovation and change. However, by determining which aspects of the program can be successfully managed using relatively more mechanistic and resource-conserving structures, program managers can save their resources to deal with those aspects that are more demanding.

Box 5.4 CARDI's Farming Systems Research and Development (FSR/D) Program Structure

CARDI serves the economies of twelve member states of the Caribbean Community by generating and disseminating technological innovations in agriculture. The USAID-funded FSR/D program sought to install in CARDI a new approach to agriculture technology R&D that emphasized farmer participation, multidisciplinary analysis, and linkages to other production inputs (e.g., credit). Thus, the program's level of innovation was extremely high. The environment was uncertain and hostile for several reasons. USAID's previous experience in funding CARDI had been unsatisfactory from the donor's view, and USAID was reluctant to provide additional support. Successful implementation of the FSR/D program was "do or die" for CARDI if the institute wanted further USAID assistance. CARDI depends on member country contributions for operations; these were in arrears or lower than planned, introducing uncertainty into CARDI's budget situation. Program implementors were widely dispersed geographically,



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being located on different Caribbean islands; decentralization was a necessity, balanced with strategic leadership to maintain program focus and ensure results.

The FSR/D structure attempted to deal with these challenging contingencies by incorporating the organic organizing characteristics discussed above. Evaluations and assessments found that the program was highly successful, not just in producing appropriate technology for Caribbean farmers, but also in making CARDI a high-quality R&D institution. Schematically, the program had the form shown on p. 119.

Source: CARDI (1984) and Ingle et al. (1990)

GUIDELINES FOR HOW TO ORGANIZE

This section offers some guidelines for managers on structuring their programs. The guidelines are divided into two sets, one concerning structural design and the other dealing with program structuring by task and activity allocation.

Program Structuring: Design

- Using Table 5.2 as a guide, select a structural variant that fits the program's strategy, level of innovation, and environmental conditions. Look at the active, goods and services production component and at the reflective component to decide whether relatively mechanistic or organic structures are called for, bearing in mind the incentives likely to be created.
- Keep mechanical tasks structured mechanistically, but consider changes that might streamline efficiency. These could include minimizing hierarchical clearances on actions, broadening latitude for discretion within specified boundaries, designing new or improved SOPs, and so on.
- In recognition of the underorganized nature of the relationships among most program-implementing partners and of the inherent fuzziness of nonhierarchical, "dotted-line" linkages, regularize interaction by introducing some degree of formalization. This could be as simple as regularly scheduled joint program review sessions or the designation of certain staff positions as official "linking pins" among collaborators.
- Build some redundancy into the structure. Personnel transfers, reorganizations, budget cuts, and so on are commonplace in developing country administrative settings, and since programs by definition endure over long time periods, they are guaranteed to confront changes. Programs

should anticipate these by making sure that more than a single individual or unit has responsibility for key activities and functions. One way of including redundancy is to design unit responsibilities with some degree of overlap.

- All of the chapters stress the importance of linkages with program environments. As one way of establishing and maintaining these, consider setting up a temporary or permanent program advisory committee or board of directors composed of major stakeholders and, whenever possible, members of beneficiary groups. This kind of structural innovation is a good way to provide managers with valuable feedback they may not get from their own staffs or partner agency personnel.
- An easy way to make structures more organic is to assemble temporary task teams to deal with specific, time-bounded problems or issues. Use of temporary teams and task forces increases flexibility, facilitates group decisionmaking, brings together actors and stakeholders who might not otherwise work together, builds solidarity and unity of purpose, and enriches information exchange. Temporary teams also let managers experiment with different structural configurations to help discover better ways of arranging what needs to be done.
- Emphasize collegiality and downplay hierarchy to the extent possible. Matrix structures do not work very well when their members continually resort to channeling their actions in superior-subordinate terms. Hierarchy can be used strategically to resolve conflicts, but the kind of negotiating, bargaining, and collaborating that program management calls for is more effectively accomplished in structures that accentuate direct, horizontal, collegial interactions.
- Pay attention to informal structure. Organic structures are more informal, but that does not mean that mechanistic ones display no informal mechanisms. Observing where informal structures exist or emerge can often lead to the identification of inefficiencies in the formal structure, which could potentially be changed. Also, since discrepancies between formal and informal authority are pronounced in the highly personalized administrative systems found in many developing countries, managers need to remain aware of how and where things really get done, as opposed to what written statutes and organization charts may indicate.
- Beware the tendency to retain large quantities of operational responsibilities and tasks at the top of the program structure. Top management overload is common in developing country organizations. Take advantage of the efficiencies of decentralization, particularly appropriate for programs, which by definition contain multiple "nodes" of activity. Retain overall strategic responsibility for the program manager, but set up structures that deconcentrate and delegate operations to those units and individuals close to the action.

Structuring Programs: Allocation

- As a result of looking out at the external environment, which includes stakeholder analysis (see Chapter 3), program managers will already have information on the interests, resources, and capacities of various entities that could play a role in program implementation. Use this information, and collect more if necessary, to identify potentially appropriate partners to be included within the program's structure. In some cases, prospective partners will self-select because of their interest in the program's purpose, which will make information collection easier.
- Besides decentralizing by designing new structures, this can also be accomplished through allocation of tasks and activities to existing ones (often these two go in tandem). Using Table 5.2, where it is indicated that organic structures are appropriate, and the information on potential partners, explore decentralizing the program's structure by allocation. A variety of criteria can be used to guide the choices here, such as (a) efficiency—who would do the job at the least cost, requiring the least degree of capacity-building? (b) political support—who would provide the most valuable support to the program in return for a role in implementation? (c) sustainability—who is best positioned to continue program activities once external support has ended? or (d) equity—who would most contribute to getting goods and services to those who need them most?
- Consider a role for the private sector. Privatization in developing country service delivery is still in the learning phase, but it is promising both from efficiency and equity perspectives. In making allocation decisions, ask and answer the following questions. Is there a strong rationale for structuring the program as a public sector function? If no, would implementation by the private sector entail unacceptable disruption of an essential public service? If no, are private sources available and is competition likely? If yes, could the service be produced and delivered more efficiently and effectively by private entities? If yes, allocate program implementation to the private sector.[7]

NOTES

1. For example, Champion (1975) surveyed the organizational literature and tallied the frequency of individual structural variables appearing in journals and books. His list includes centralization of authority, vertical span, formalization, specialization, size of administrative units, and number of operating sites. A few key references in the extensive literature looking at structure are Chandler's classic study (1962), Lawrence and Lorsch (1967), Thompson (1967), Miles and Snow (1978), and Hage (1980). Discussions of structure in developing country organizational settings

include Kiggundu (1989), Leonard (1977), Paul (1982), Blunt (1983), Ickis (1983), Korten (1984, 1988), and Hage and Finsterbusch (1987).

2. There are many definitions of decentralization, with various analysts making particular distinctions and emphasizing special aspects. For example, Rondinelli, Nellis, and Cheema (1984) include privatization (using public resources to correct market failures) as a fourth variant of decentralization in addition to the three mentioned here. Kiggundu (1989: 234-39) divides decentralization into four dimensions: devolution, delegation, popular participation, and divisionalization (see his Chapter 7). See also Rondinelli, McCullough, and Johnson (1989) and Silverman (1990).

3. As we noted, the literature on organization design and structure is enormous, and various analysts propose differing ways of classifying and describing organizational types of structures. See, for example, Galbraith's (1977: 11-35) overview of different approaches. Deriving from the model of program management sketched in Chapter 2, the discussion in this chapter emphasizes the contingency theory perspective. A more detailed contingency model for development organizations than what is developed here can be found in another of the books in this series; see Hage and Finsterbusch (1987: 59-93). The following discussion draws on Hage and Finsterbusch, Paul (1982), and Middleton, Rondinelli, and Verspoor (1987).

4. Alfred P. Sloan, Jr. is generally credited with having developed the divisional structure in the 1920s when he organized General Motors into separate divisions (e.g., Pontiac, Chevrolet, Buick, AC Spark Plug, etc.) under the direction of a centralized top management unit. Within twenty years, GM's structure had been widely adopted as the model for large organizations all over the world.

5. Hage and Finsterbusch (1987: 70-73) refer to this type of structure as mixed mechanical-organic.

6. Rent-seeking refers to profits that individuals or groups can make by capturing intendedly public resources and benefits for private use. A classic reference on rent-seeking is Krueger (1979). Nicholson and Connerley (1989) offer an informative discussion of rent-seeking's implications for development management.

7. This set of questions follows Marston (1987: 75), who proposes a checklist for privatization decisions. NASPAA suggests a broader set of questions for privatization of government services by contracting out (Morrison 1986a: 10). These include several covered in this volume by looking out at the external environment, such as the political and macroeconomic contexts. The questions also address: (a) Features of specific sectoral markets (degree of concentration/competition, size of consumer market, entry costs, stability, management skill levels, and degree to which contractors are able to inflate costs over time) and (b) public sector administration of privatization (contract administration performance, maintenance of competitive bidding, quality and fairness in contract design, surveillance, enforcement of contract terms, and existence of external oversight bodies).

6

Getting Things Done: Systems and Processes

Management systems and processes for getting things done are touched upon throughout this book. The model of program management presented in Chapter 2 incorporates a systems perspective that links inputs to outputs via transformation processes and feedback. Chapter 3 highlights systematically scanning program environments and dealing with coordination among multiple, semiautonomous actors as parts of proactive strategic management processes. Chapter 4 looks at the process side of program design, discusses standard operating procedures (SOPs) for planning and their implications for program design, and introduces the structured flexibility approach as the guiding principle for setting up management systems and processes. The treatment of program structures in Chapter 5 includes different types of processes associated with mechanistic versus organic structures. Chapter 7 notes the impact of personnel systems and looks at leadership processes as important elements of managing human resources.

This chapter concentrates upon three systems important for program managers: the guidance system, the reporting system, and the financial system. The unifying factor among the three is that they all are composed of information in various forms. As with the other components of program management, managers have varying degrees of discretion in developing systems and processes. Some, such as those prescribed in official SOPs, are fixed. Others offer possibilities for modification or even design from scratch, the latter emerging from the fact that programs consist of interorganizational networks that may not have established, systematic ways of working together. We look at how guidance, reporting, and financial systems can incorporate the principles of structured flexibility to support optimum performance under differing conditions. A set of guidelines summarizes the chapter's discussion.

GUIDANCE SYSTEMS

The starting point for a program guidance system is the program's design (or redesign), which includes its objectives, strategy, and planned activities. The design provides the rationale for exercising managerial direction to steer the collective action of program participants to achieve intended outcomes. The program's plan is not the collective action itself; it is at best a projection of the action, or chain of actions, that available knowledge suggests is necessary for program performance. As discussed in Chapter 4, in the uncertain environments that characterize socioeconomic development, with multiple actors and only partial control by any single entity, effective program management is characterized by dynamic, iterative learning processes rather than linear, blueprinted ones. A program guidance system sets the standards for the actors involved in these processes, establishes incentives and sanctions, and channels the feedback and learning to those who need it to fulfill their program responsibilities.[1]

Program guidance systems provide the framework within which managers allocate tasks and responsibilities, assess problems and progress, scan the environment, determine what changes are required and when, and evaluate results. They differ in several ways, however, from the project guidance systems commonly found in individual project implementing organizations.

First, program guidance systems (following the nature of programs) are interorganizational, involving a multiplicity of actors, many of whom are not directly responsible to the program manager. This means that guidance systems function as networks where guidance is operationalized via a mix of directives, negotiation, consultation, and bargaining (recall Table 3.3). In a project located in a single organization, guidance tends to rely more heavily on directives and hierarchical accountability. Second, and flowing from the first, guidance systems tend to be somewhat amorphous, with relatively permeable boundaries (the actors who are part of the system come and go). Although the decision tools contained in most project guidance systems are important, the heart of program guidance systems is the process of bringing key actors—program staff, beneficiaries, and other stakeholders—together.[2] In a very real sense, guidance systems are meetings, workshops, and planning/review sessions rather than reports, documents, or forms to be filled out (which is why this chapter separates guidance from reporting systems).

Third, guidance systems concentrate on strategic decisions and thus are outward-oriented, focusing predominantly on the program's results and impacts and the reactions of beneficiaries and stakeholders to what the program does. Project systems tend to be more inward-oriented, concentrating on tracking project implementation activities and outputs.

Box 6.1 provides a description of the guidance system CARDI uses to manage its multicountry, interdisciplinary portfolio of agricultural research and development programs. The system employs a rolling annual cycle embedded

Box 6.1 A Program Guidance System in the Caribbean Agricultural Research and Development Institute (CARDI)

CARDI operates in the complex, multicountry region of the eastern Caribbean, where each island possesses distinct microclimates for agriculture, although the island nations share similar types of agricultural production problems. The institute has two primary mechanisms for anticipating the future and capitalizing on change: its strategic planning process and its annual review and planning process. Together, these two processes give CARDI operational flexibility within a strategic framework.

CARDI's strategic planning process centers on an in-depth strategic review undertaken every two or three years. This review brings together senior CARDI staff, Ministry of Agriculture (MOA) personnel, representatives from farmer organizations, and other knowledgeable persons who jointly analyze relevant political, technical, economic, and social factors. The strategic planning process examines major change factors in the environment, explores institutional strengths and weaknesses, identifies key research and development needs, sets priorities, and forecasts budget requirements for the next several years. The output from this exercise is CARDI's strategic plan.

CARDI's annual review and planning process is the cornerstone of its guidance system. This process combines top-down policy guidance with bottom-up planning to generate each year's work program and budget. It consists of ten steps:

1. Planning guidance is issued by CARDI headquarters following a December planning session attended by senior management, MOA technical leaders, and representatives of other institutions. This group reviews current trends, identifies emerging opportunities, and highlights major research issues. The results of this session are written up and issued in a guidance document that sets forth policy guidance, planning instructions, and budget targets by member country and program.
2. MOA planning workshops and meetings are held in each country to review results of previous work, identify objectives, and define new topics for study. These sessions help ensure that the proposed CARDI activities meet member government priorities and regional needs.
3. Preliminary workplans are prepared by CARDI Country Teams and Subject Matter Specialists, using CARDI's Program Activity Record (PAR) format. This format directs researchers to justify each proposed activity, describe the methodology, and estimate resources required.
4. Program leaders review the preliminary workplans from a program rather than an activity perspective. They identify gaps, overlaps, and duplication in the proposed work.
5. CARDI's annual technical review meeting brings together all CARDI's professional staff to review workplans and budgets, make trade-offs, and coordinate activities between countries.
6. Workplans are revised by program leaders and responsible network leaders and forwarded to headquarters for senior management approval.

Continued on following page

Continued from previous page

7. Workplans are integrated into a proposed institutewide work program. These are evaluated by the deputy executive directors in relation to CARDI policies, priorities and available resources, then approved by the executive director.

8. Work programs are presented for board approval in April. The board of directors comments on the proposed programs and may suggest appropriate changes. The governing body adds its approval at its subsequent meeting.

9. The final work program is issued by headquarters in a brief message that communicates the approved budget and PARs. The final work program reflects any changes suggested by the board and the governing body.

10. Monitoring and evaluation occur on a continuing basis. During implementation, the country units keep in touch with the program leaders, who track progress, problems, and prospects. In addition, all activities are evaluated regularly, and impact studies are conducted to determine how well programs contribute to fulfilling the regional research needs to achieve improvements in agricultural production.

Source: CARDI (1988)

in a longer strategic cycle, where earlier results are assessed and incorporated into current program planning and management, which in turn provides the input for the next iteration.

Guidance System Elements

Program guidance systems can be thought of as comprising five process steps that make up one sequential iteration of the guidance cycle. These steps are:

1. *Setting major program priorities.* The initial elaboration of priorities derives from the program's design, which specifies a set of objectives and activities to achieve them (see Chapter 4). However, to assist program staff in detailed planning (especially for large, complex programs), it is useful to break the program's objectives and activities into subsets and develop priorities for each one. For example, the management team of Egypt's USAID-supported National Agricultural Research Program (NARP), an eight-year effort with a total budget of about $190 million, broke planned objectives into fourteen activity areas for purposes of implementation planning. A subteam was assigned management responsibility for each activity area and developed priorities by area to facilitate annual planning (Momtaz and Witter 1987).

2. *Communicating priorities to program staff.* Priorities, along with estimates of budget levels and criteria for plan approvals, are sent to program staff in the form of guidelines for the preparation of annual workplans.

Box 6.2 A Sample Reporting Format: The Program Activity Record

Detailed PAR Report APP-ANWT-1990

Title : Analysis of animal liveweight gain from four pasture grasses

Search Keys : MEAT ANDROPOGON PASTURES HEIFERS
MILK LIVEWEIGHT BRACHARIA SPP

Purpose : To determine the liveweight production potential from *B. Humidicola* (UF717), *B. Decumbens*, *B. Humidicola*-Sheep Grass and *Andropogon Gayanus*.

Justification : *B. Humidicola* (UF717) is the major forage species planted. The other forages demonstrate suitability for the ecozone. Their animal production potential needs to be determined to assist farmers to increase incomes.

Previous Research : Stock rate for *B. Humidicola* has been estimated in previous trials. (See Milk Production System Project Reports, 1982-88, CARDI).

Audience or Target Group : Animal producers, e.g. LIDCO and small satellite farmers at Moblissa.

Approach : The four grasses will be grazed in a change-over design. One heifer per pasture for 2 months before change-over. Animal weights taken at start/end of period, plus pasture samples for herbage mass, botanical composition, etc.

Comments : This activity is a key component of CARDI's Animal Production Program (APP), as described in the Institute's 1988-1993 Strategic Plan.

Annual Workplan

I.D. DATA
Program Category : APP
PAR : ANWT
Fiscal Year : 1990

Last Updated : 06/30/90

KEY DATES
Planned Start Date : 01/01/90
Planned End Date : 06/30/90
Approval Date : 11/01/89

FINANCIAL SUMMARY
Program Budget : 24,700
Budget Balance : 24,700
Cash Balance : 0

Purpose Indicator: Completed trial to evaluate the liveweight potential of four grasses, data evaluated, and report prepared.

Status Completed

Task Accomplishments

#	Task Accomplishment	Responsible	Planned Start	Planned End
1	FENCE PADDOCKS IN PASTURES	J.SMITH	02/01/90	03/01/90
2	PROVIDE WATERERS, FEEDERS	J.SMITH	02/01/90	03/01/90
3	ANIMAL IDENTIFICATION AND GRAZING	A.BROWN	03/01/90	05/01/90
4	SAMPLE ANIMAL WEIGHTS	A.BROWN	04/01/90	05/01/90
5	SAMPLE HERBACE AND ANALYZE	N.OTHER	04/01/90	05/01/90
6	ANALYZE AND EVALUATE DATA	N.OTHER	05/01/90	06/01/90
7	PREPARE REPORT	N.OTHER	06/01/90	06/30/90

External Conditions

#	Condition	Responsible	Planned Start	Planned End
1	CARDI BIOMETRICIAN AVAILABLE	A.READY	04/01/90	05/01/90
2	LIDCO VEHICLES AVAILABLE	LIDCO	01/01/90	05/30/90

Resource Budgets

Code	Description	Budget
3100	TRAVEL	700
3200	PER DIEM	4,200
4100	SUPPLIES	3,500
4200	EQUIPMENT	4,750
4400	COMMUNICATIONS	500
4300	PRINTING/REPRODUCTION	500
Totals		14,150

Personnel Summary

Code	Description	Budget
2021	MANAGEMENT STAFF	2,000.00
2022	SUPPORT STAFF	800.00
2000	SCIENTIFIC STAFF	5,250.00
2023	MANUAL LABOR	2,500.00
Totals		10,550.00

END OF REPORT

Source: IDMC (1990)

3. *Preparing workplans.* Draft plans are assembled via a bottom-up process involving those who will actually carry out the planned activities within the various program-implementing organizations and groups, and beneficiary representatives whenever feasible. Workplans employ many of the project management tools familiar to managers: Gantt charts, timelines, responsibility charts, and so on (see Delp et al. 1977, Kettering 1981, and Ingle and Henson 1984).[3] Important in the program management context, however, is a means of summarizing workplans so that the aggregate amount of information remains manageable. Since program management deals more with strategic concerns than does project management, program managers need less detail on specific implementation arrangements and more on how activities relate to overarching priorities. One format that has proven useful in a number of programs (CARDI, Egypt's NARP, Jordan's agriculture ministry, and Thailand's Affected Thai Village Program) is the Program Activity Record (PAR), shown in Box 6.2.[4] PARs can be incorporated into program reporting systems.

4. *Reviewing and consolidating workplans.* This process aggregates the program's workplans and compares them with priorities and available resources to put together a coherent and feasible annual program plan. This step usually involves some type of technical and/or bureaucratic clearances, authorizations, and approvals. For example, Egypt's NARP workplans are prepared by activity area committees, and then are consolidated into an annual plan by the NARP executive committee for presentation to the board of directors. After review and approval, the board forwards the plan to the director general for final sign-off.

5. *Monitoring and reporting progress, problems, and prospects.* The final step in the guidance system is monitoring and adapting program implementation based on the aggregate and activity-specific workplans. This process is where the program reporting system fits in, discussed in the next section.

As the CARDI case in Box 6.1 illustrates, a workshop format fits well as a mechanism for cycling through the five steps of the guidance system (see Silverman et al. 1986 and Foster et al. 1990). The NARP has used a similar format for making its guidance system operational.

REPORTING SYSTEMS

Reporting systems provide inputs to program guidance systems but are distinct from them in that they focus primarily on handling information flows to monitor implementation progress and support operational decisions, whereas guidance systems subsume this focus within a larger strategic perspective. Program reporting systems have both vertical and horizontal dimensions. The vertical dimension relates to the hierarchical structure of the program's host organization(s); subordinate staff collect and relay information upward to their superiors, who use it for control and planning purposes. In addition, information

flows downward, communicating policies, directives, feedback, sanctions, and so on. The horizontal dimension concerns sharing of information across program-implementing units involved in joint action. This latter dimension is primary for program management.

In practice, program managers in developing countries confront varying degrees of information feast or famine. In some situations they receive many times the amount of information they can use and suffer from overload; in others they operate in an information vacuum. The lack of appropriate, timely information for effective decisions is a well-recognized problem, particularly for complex rural development efforts where relevant information is often unavailable or of poor quality.[5] The reasons for the lack can be a mix of technical and political. On the technical side, many countries have neither the institutional nor the human resources needed for data collection and analysis. Regarding the political side, program managers should remember that information really is power. For example, in a large regional development program in Haiti, program documents were treated as secret, with highly limited distribution, to maximize the discretion of top decisionmakers in utilizing program resources without opposition (Brinkerhoff 1988).

Effective program reporting systems seek to (a) provide required information to the appropriate person(s) in time to furnish input to necessary decisions and (b) ensure that information providers receive feedback on why information is required. The second item is significant in the program management context, where much of the information that program managers need comes from actors who are not under the managers' authority. Compliance with reporting requirements is influenced by the provider's understanding of the importance of the information required. Program managers need to be sensitive to the incentives side of reporting systems. For many people, monitoring and reporting have negative connotations, given their connections to oversight, assessment, and evaluation.

To fulfill the two effectiveness criteria, program managers need to develop their reporting systems according to several overarching principles. First, an effective reporting system does not necessarily have to tell managers everything they need to know but should indicate when they need to know more and where to go to obtain further information. Second, all staff at all program levels should not receive the same information. Generally, top-level program managers require more information on results and impact information and less detail on day-to-day operations. This means that as information flows upwards it is transformed. The ratio of "raw" facts to interpretation changes in favor of distillation and analysis and away from numbers and statistics. Third, an effective system demonstrates parsimony; that is, it reports only the information needed for decisions and permits revision in the system by building in a mechanism that periodically compares the cost of data collection and processing versus use. Over the life of most reporting systems there is a natural tendency to

add pieces of information to the system without removing any. Eventually the system becomes cumbersome and onerous, and people begin to "bootleg" information around the system rather than using it (Wildavsky 1983).

Designing a Reporting System

There is no such thing as a standardized monitoring and reporting system that fits all programs. Any system has to be adapted, and to some degree user-developed, to be truly useful and appropriate. Morocco's National Institute of Agricultural Research (INRA) learned this lesson the hard way. The INRA adopted a model system from an international research institute, intending to use it to manage the research programs conducted by its network of decentralized regional research centers. Responsibility for adapting the system was assigned to an information technician at headquarters, who made modifications and then sought to have the system installed in the various centers. INRA scientists, however, rejected it as unsuited to the realities of doing research and as reflecting headquarters' control priorities rather than their interests. The system remained uninstalled and unused.

The way to develop an effective program reporting system is in the same manner as program design and implementation planning: in a team mode including those who both produce and consume the information to be collected and reported. Using a participative process will help to ensure that the system meets user needs and can foster understanding of, and consensus on, reporting requirements. A six-step sequence of tasks is involved (Romagna 1979; Kettering and Schmidt 1981).

1. *Identify the key decisionmakers and decisions for each set of program activities.* As part of this task, managers should also classify the kinds of decisions to be made and the type of information each one requires. Commonly used decision categories are impact, programmatic, project, operations, budgetary, personnel, and so on. The team should identify what needs to be monitored and what requires more in-depth analysis or evaluation.

2. *Establish the periodicity of the required information.* Each type of decision requires information at a particular time to feed into decisionmaking. Some of these times are dictated by existing SOPs. For example, donor-funded efforts usually specify quarterly reports, annual workplans, and/or midterm and final evaluations. Other reporting schedules will emerge from (a) the internal operations of the program's host organization, e.g., monthly activity reports, vehicle use logs, annual employee appraisals; and (b) monitoring and reporting requirements of national agencies, such as the planning and finance ministries.

Another factor to take into account regarding periodicity is the total length of time it will take to go through one iteration of the reporting cycle. As a "rule

Table 6.1 Illustrative Transmission Grid for the Mae Chaem Project

Report (Frequency)	Interface (I-F) Team	I-F Chief	Technical Advisor	Field Manager	NADC	Department Field Representative	Provincial Committee	Planning Ministry Projects Division	Agriculture Ministry Departments	DTEC	USAID	Other
Activity Diary (Continuous)	Orig	Action										
I-F Team Reports (Weekly)	Orig	Action	Info	Info								
I-F Progress Reports (Monthly)	(Info)	Orig	Info	Action								Tambon and Amphoc Officials & Committees
Activity Progress Reports (Monthly)				Action	Info	Orig	Info	Info	Action			Tambon and Amphoc Officials & Committees
Project Progress Reports (Monthly)		(Info)	(Info)	Orig	Info	Info	Action	Info	Action	Info	Info	Supporting or Cooperating Institutions
Technical Advisor Report (Quarterly)		(Info)	Orig	Action	Info	Info	Info	Action	Info	Info	Info	Supporting or Cooperating Institutions
Provincial Committee Minutes		Info	Orig	Info	Info	Action	Info	Info	Info		Info	Tambon and Amphoc Officials & Committee
USAID Project Officer Report			(Info)	(Info)	(Info)			(Info)	(Info)	(Info)	Orig	USAID DIRECTOR

Orig = Originator of Report **Action = For "First Line" Action** **Info = For Information** **(Info) = Copies of Summaries Useful for Operating Levels**

This chart shows a few useful progress reports, but none of the financial reports or flows. It is not descriptive, but demonstrative of a useful reporting system. Although most reports are constructed for "upward" reporting, those information copies (info) show where it may be useful to send copies or summaries to operating levels.

Source: Kettering and Schmidt (1981)

of thumb," using the formal reporting system to provide information for error detection, correction, and adaptation requires approximately three and one-half reporting periods. For example, consider a monthly reporting cycle. A problem is detected during month M; it shows up in the next report, M+1; decisionmakers receive the report, note the problem, and initiate corrective action; report M+2 informs decisionmakers that correction took place; they next receive information on the effect of the correction in report M+3. In the post-M+3 period they are able to assess whether their action was appropriate.

3. *Identify the source(s) of required information.* Managers need to know where and how the different types of information can be obtained. Some will be generated internally by the program's host organization. Other information must be obtained from collaborating units and agencies. The "how" issue is also key; can the information be transmitted via written reports? Will direct observation by field visits be needed? Is a computerized system appropriate?

4. *Specify transmission points.* Managers should determine who is to receive which type of information and where it is to be sent. Programs generally have a relatively large number of external transmission points, such as the donor agency, collaborating national agencies, supervising ministries, beneficiary organizations, and so on. Table 6.1 illustrates a transmission grid for the Mae Chaem project in Thailand, a watershed development project with improved land use and alternative income generation objectives. Programs would characteristically have more transmission points than projects.

5. *Review and modify the reporting system.* The program team needs to examine the system as a whole to identify the implications of operating and using it. This is also the place to look at formal versus informal reporting. System changes may have to be made. For example, some units may be overloaded with monthly reporting requirements, or there may be reporting redundancies among certain units. Staff have a tendency to routinely send copies of reports to a variety of superiors and/or collaborators who may or may not use them. Perhaps a single report can meet the needs of several categories of stakeholders. The mix of reports may need modification—for example, increased reliance on exception reports rather than periodic ones. Over the life of the program it is likely that the reporting system will need to be modified as new activities are undertaken, funder reporting requirements shift, new partners become engaged in implementation, etc.

6. *Plan the installation of the reporting system as a discrete activity.* Making a new system operational requires active managing. Forms will have to be designed and tested, manuals and procedures developed, and staff trained. Managers should develop a plan with clear targets, timelines, pilot testing, modification, extension, and follow-up. User participation needs to be built into all planned steps. Box 6.3 illustrates the development of a reporting system for the Affected Thai Village Program (ATVP) in Thailand.

Box 6.3 Developing a Monitoring and Reporting System for the Affected Thai Village Program (ATVP)

The Thai government initiated the ATVP in 1978 to assist Thai villagers living near the Thai-Cambodian border. These villagers were being overwhelmed by a large influx of refugees, a situation that continues to the present day. The program was soon expanded to include villages on the Laotian, Malaysian, and Burmese borders as well. Donor assistance on a significant scale began in the late 1980s, and by 1990 the ATVP was receiving support from USAID, the United Nations, the World Food Program, West Germany, Japan, and Canada. In 1987, a joint military-civilian office to manage the ATVP was established. The office has responsibility for program planning, coordination of thirty-five implementing agencies, monitoring, and evaluation.

It quickly became apparent that the complexities of the planning, coordination, and oversight tasks surpassed the capacity of the office to handle them. USAID agreed to support the development of an automated management and reporting system for the ATVP. As a result of a high-ranking program official's visit to the United States, the government invited the University of Maryland's International Development Management Center (IDMC) to work with the ATVP to design and implement the proposed system.

System development incorporated the six steps enumerated above through several iterations. A rapid reconnaissance of information and reporting needs and requirements led to the initial design of a process for system development and installation (Phase I). The first element in the design was an action-training component so that ATVP staff and stakeholders would have the skills to develop and manage the system themselves. The eleven participants in the 1988 training workshops prepared the actual plan for the system, which included additional cycles of workshops to bring more staff into the process. To ensure that top-level ATVP staff understood and were committed to the system, a special abbreviated workshop was held for them.

Some of the information and reporting needs identified were funding sources, implementing agencies, expenditures by program activity, expenditures by region/village, implementation status by program activity, anticipated expenditures by activity/region/village, and so on. Using an IDMC microcomputer software program as a base, technical specialists worked interactively with ATVP staff to customize the software to fit their needs. Phase II of system development began in 1989 with field testing of the software and further customization and fine-tuning. Other ATVP staff received training, and the ATVP office's monitoring and evaluation unit began to assume major responsibility for installing the system, called PIMSAT (Program Information Management Systems for Affected Thai). As a first test, the ATVP information team, supported by IDMC, created reports to fulfill USAID requirements.

Phase III, to begin in late 1990, will see the expansion of PIMSAT to all ATVP activities, accompanied by further system modification and training. This system development phase is planned to last for three years.

The ATVP's PIMSAT illustrates the importance of treating management information and reporting systems development as a long-term, iterative process where system users are integral participants in setting up the system. The case stands in sharp contrast to INRA's experience in Morocco.

Source: Author, from internal USAID and IDMC reports

FINANCIAL SYSTEMS

Finances are the lifeblood of program action. Without funds, program objectives remain intentions. Realizing goals and achieving impact require money and the other resources money can buy. In these times of tight development resources, financial sustainability is critical, not just funds to operate with today, but a sufficient flow to cover costs and ensure operations in the future. Developing countries, on their own and with donor assistance, are experimenting with cost recovery, fees-for-service and subsidy reductions, and so on. These measures all require good financial data. Information on finances is a basic component of reporting systems and feeds into guidance systems as well. Financial systems serve three basic functions: financial accounting, financial control, and financial management.[6]

Accounting functions concern the allocation and tracking of funds and financial events. These functions can be viewed as "scorekeeping," where encumbrances and expenditures are recorded and measured against allocations. The orientation is backward-looking, portraying past financial events according to generally accepted accounting principles, which emphasize accuracy, consistency, and reasonableness. Included here are such tasks as cash flow management, accounts payable and disbursements, journal and ledger maintenance, transaction monitoring, payroll execution, and so on. For programs, the details of most of these tasks are predetermined by national and donor agency SOPs (see Chapter 4).

Financial control functions complement accounting and deal with managing the resources used in the day-to-day operations of organizations and programs, such as personnel, equipment and supplies, vehicles, etc. Tasks associated with these functions are budget preparation, budget execution, funds control, auditing, and inventory control. Within individual program implementing units, existing SOPs largely define these financial control tasks. Program managers will, however, need to reformulate the information generated to relate resource use to cross-cutting program activities. This transformation is often complicated by the fact that most public sector budget systems consist of a line-item/object-of-expenditure format, whereas program budgets are by definition objective-based.[7]

Financial management functions involve using the information resulting from accounting and control for organizational and program problem solving and decisionmaking. These functions feed directly into program guidance. Tasks include cost and variance analysis, budget and cost forecasting, reporting and communications, and decisionmaking. Program managers are most directly concerned with this category of functions. Accounting and control are generally handled by delegation. Managers need to be aware of the possibility of conflict among the different functions, especially when they are delegated to different units. Many accountants and financial controllers view their functions as

encompassing stewardship, i.e., husbanding program funds while guarding the "public trust." This perspective does not always fit with a performance orientation of using funds to accomplish desired ends.

Effective program financial systems tell program managers and decision-makers (a) how funds are being committed, (b) whether they are allocated to the highest priority activity areas, (c) whether they are being used efficiently, and (d) what future resources are likely to be needed. The information in the financial system (transmitted in timely, accurate, digestible formats to appropriate users) allows program managers to weigh alternative courses of action in terms of their financial implications, measure the financial effects of previous choices, and track resource utilization rates. The latter is especially germane to managing recurrent costs, which is critical to program sustainability.

The essence of an accounting system, the core of any financial system, summarizes encumbrances and disbursements in a given time period. For example, a basic accounting report would include the following: the latest budget, cumulative encumbrances, the previous period's disbursements, the current period's disbursements, cumulative disbursements, undisbursed encumbrances, and balances. These basic elements can be applied to a budget line item, a program, a program activity area, a project, a sector, or a national development plan. The resulting information can be handled simply, by a paper reporting system, or it can be automated on computers for more sophisticated data processing.

Program accounting and financial control functions can be relatively easily systematized. As mentioned above, many of their features are determined by existing SOPs. The financial management function is most often integrated with the guidance system, as Box 6.1 illustrates for CARDI. Because financial systems deal with funds, which are the object of much interest, scrutiny, legislation, and regulation, they often become reified into ends in themselves. Program managers need to retain the perspective that financial systems are means to achieve desired development impacts. Further, the ethos of financial systems meshes naturally with the blueprint mentality toward implementation. Program managers should guard against the tendency to use financial systems solely to enforce stewardship of funds or to punish deviance from planned budgets. Punitive controls send the message that procedurally correct spending, not performance, is the priority. The incentives created are antithetical to fostering a managerial setting that is attentive to performance when funds are allocated.

Although they deal in "hard" numbers, budgets, seen from the structured flexibility perspective, are still only approximations of spending intent at a given point in time. Telltale signs that program financial systems are leaning too far toward blueprints and control, and away from flexibility and performance, are:

- Strict limitations on funds transfers between budget line items

- Requirements for a priori approvals for all expenditures rather than a posteriori within specified ranges
- Highly detailed reporting requirements for all expenditures irrespective of amount
- Absence of petty cash revolving funds for emergencies and day-to-day unpredictable small outlays
- Limitation of encumbering or spending authority to one or two top-level program staff
- No links between reporting budget data and outcome or results data

To the extent that program managers have discretion to set up their own financial systems (or portions of it), they should beware of introducing controls to the exclusion of the flexibility needed in the real world to achieve performance. This does not mean "giving away the store"; rather, as was mentioned above on guidance systems, effective program financial systems set standards for funds use by laying out the parameters within which program implementors may exercise financial initiative, subject to review according to agreed-upon rules. The underlying premise is to achieve a balance between controls and autonomy.

In exchange for greater flexibility in using funds, program managers can require more information on results, which reinforces the message (that effective management needs to send) that performance matters. Schick (1990) reports, for example, that Sweden is experimenting with just such a trade-off: government agencies receive three-year budgets but must conform to more detailed directives for objective setting and results reporting. "In effect, the [Swedish] government is offering increased flexibility in administrative management as an inducement for agencies to make a broad, probing assessment of their overall performance" (Schick 1990: 31). Another example comes from Senegal, where the government has experimented with performance contracts in public enterprises that specify a set of objectives (arrived at by negotiation) in exchange for increased financial operating autonomy and phased liquidation of arrears (Nellis 1989). Problems with the contracts have arisen, though, in that the government in many instances has failed to uphold its side of the bargain.

The ability to relate outcomes and performance to resource allocation entails changes in financial systems. Box 6.4 gives an example from Morocco of how a financial system was modified to produce information needed for these purposes, as well as continue to provide basic accounting and financial control information. The Agronomic and Veterinary Institute faces a situation, common to developed and developing countries alike, where availability of public resources is constrained. To obtain support for its programs in the future, the institute must be able to demonstrate the relationships among costs, benefits, performance, and valued outcomes. Furthermore, to be effective public

Box 6.4 Managing Recurrent Costs and Maintaining Quality in Morocco's Hassan II Agronomic and Veterinary Institute

The Hassan II Agronomic and Veterinary Institute (IAV) has been the target of USAID-funded institution building, provided by the University of Minnesota, over the past twenty years through three projects. During this period, the IAV has developed dynamic and high-quality programs in teaching, research, and development outreach, the three elements of its institutional mission. Between 1990 and 1992, USAID support will terminate; and the sustainability of the programs developed, including maintenance of the quality of teaching and research attained, will require replacement of the donor funds by other sources. The IAV is pursuing a resource mobilization strategy that targets its traditional source of revenues, the Moroccan government, plus an expanded set of external sources: the private sector, foundations, and other international donors.

To support this strategy, the IAV found that it needed a different type of financial information from what its existing system could produce. As a semiautonomous public agency, the IAV conforms to the financial practices of the public sector; this system uses the standard line-item format by object of expenditure. While the existing system fulfilled accounting and control functions, it failed to address the financial management needs of IAV decisionmakers. The University of Minnesota, responding to a request from the IAV and strong interest from USAID, provided assistance to help the institute revise its financial system to better support strategic management of recurrent costs through resource mobilization.

The assistance team worked with IAV top management and financial administrators to modify the financial system to (a) allow calculation of costs by program, thereby facilitating comparisons among the IAV's tripartite mission plus administration; (b) incorporate proxy measures for costs of maintaining the quality of the institute's programs; and (c) yield future projections of anticipated cost and revenue flows. Formulae were elaborated to distribute costs among the IAV's four functions: teaching, research, development outreach, and administration. Various indicators were developed: e.g., cost per student, external research funding per faculty member, ratio of program costs to administrative costs, and so on. The proxy measures used for research and teaching quality were faculty travel to keep up professional contacts and availability of laboratory and other equipment comparable to what faculty had access to during their overseas doctoral training.

The IAV's existing computerized financial system continues to produce the information legally required given the institute's status within the Moroccan public sector. However, in addition, the new modifications produce information that supports decisions about policy and strategic issues concerning student tuition, externally sponsored projects, division of staff time and other resources among institutional priorities, management of recurrent costs, personnel incentives, and so on. To date, IAV leaders have used the information in discussions and negotiations (relating both to funding levels and budgeting flexibility) with the finance and agriculture ministries, USAID, and other donors. IAV accounting staff are slated for additional training to give them the skills to continue producing information for strategic management and to refine the system to generate finer-grained analytic decision support.

Source: Brinkerhoff and Richey (1990)

sector entrepreneurs, managers need this kind of information as a marketing and publicity tool. This shift in use of financial data is essential in today's competitive and resource-scarce environment.

COMPUTERIZATION

Many people equate information systems with computers, an understandable misperception given the mystique of computer technology and its increasing proliferation in the developing as well as the developed world. Providing a quantum leap in developing country computer power has been the introduction of the microcomputer, which is increasing at an expanding rate while advances in the technology make it more and more powerful (see National Research Council 1986 and Ruth and Mann 1987).

Computers, and especially microcomputers, can be a valuable asset to program managers and can vastly increase operating efficiency and effectiveness when appropriately selected and properly installed and operated. The Kenyan finance ministry's experience with the preparation of the 1985/86 national development budget is a dramatic example of positive results. That year, Kenya switched to a microcomputer-based system for collecting sectoral ministry program expenditure estimates, aggregating and reconciling them with available resource estimates, and producing a development budget. The result was a better-quality document produced on a record-breaking schedule (Wescott 1987).

Program managers considering the potential computerization of their information systems need to understand the limitations of computer technology. Berge, Ingle, and Hamilton (1986: 3) caution that

> it is important to realize that the microcomputer will not make you more organized, will not make decisions for you, will not improve your basic data (i.e., junk in, junk out), does not accept responsibility for anything, does not do forecasting and trend analysis (but helps you do it), cannot define problems or set objectives.

The place to start is with system development in which users participate, identifying information, decision, and reporting needs, parameters, and priorities. As Nabarro et al. (1989: 767) correctly note, "People are inclined to develop useful systems if they perceive that the systems are flexible and responsible and if they perceive that they have some control over their performance." Once a preliminary version of the system has been tested and installed, thought can be given to computerization. The systems presented in Boxes 6.1 and 6.3 use microcomputers, but in neither CARDI nor ATVP did computers come first; their systems began on paper, not on machines.

Introducing microcomputers should be recognized as a variant of management improvement technology and treated as any other kind of performance

Box 6.5 Microcomputer Adoption in the Ministry of Finance's Tax Directorate in Indonesia

For Indonesia the early 1980s saw growing demands on government, while economic constraints imposed increasing limits on resources. Senior officials looked for ways to increase efficiency and effectiveness in government, both on the revenue and expenditure sides. In the Ministry of Finance (MOF), the tax and customs directorates' operational capacity was distressingly weak. The MOF had problems keeping track of taxpayers, monitoring customs receipts, controlling tax and customs collection, and preventing fraud and corruption.

The head of the ministry's Center for Financial Analysis (PAIK) proposed introducing microcomputers in the district-level tax and, later, customs offices as a way of gaining better control over revenue collection. The MOF purchased 200 IBM microcomputers for PAIK in 1984. Several months later, sixty-nine district tax offices had microcomputers installed. PAIK, working with expatriate advisers and tax directorate staff, began the design of an information system to (a) establish and maintain accurate taxpayer files and (b) reduce irregularities in district-level tax collection and reporting.

Under the old system, district tax officials assessed and collected taxes directly in towns and villages. Little information beyond final amounts paid by individuals reached headquarters, and sometimes amounts were aggregated by municipality and even by district. The new system had taxpayers send returns and payments to the local office, where staff entered the information into a microcomputer. The data were reentered by a different operator and automatically cross-checked with the original entry. The system produced a letter to the taxpayer assigning each return a number.

Besides changes at the points of data entry in the districts, the new system introduced changes at regional and headquarters offices. Automatic auditing routines were developed to monitor and analyze trends in individual and district tax data. Responsibility for initiating an audit was shifted from the districts to the regions. The system also required computer skills of district staff. PAIK trainers introduced the microcomputers in easy steps, beginning with computer games. As staff became accustomed to using the machines, the system's software was introduced. PAIK designed simple menu-driven packages in Indonesian to fit the skills of the users.

Relatively quickly, the microcomputer-based system produced positive results. Accuracy of tax data increased, as did tax revenues, which doubled in some districts. The reform of the directorate's data collection, reporting, and monitoring systems was key to the success. Yet, the microcomputers themselves made several contributions. They reduced errors from handwritten and/or typed entries. They made altering an individual's return more difficult. They allowed districts to send more detailed information more quickly to the regional offices. And, they had a psychological impact on district staff and taxpayers alike that decreased the prevalence of corruption at the local level.

Not everyone was happy with the microcomputer-based system, however. A few district office directors were quite positive and saw other potential uses of the machines for improving operations. Others complained, ostensibly about the

Continued on following page

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machines and the loss of audit initiation authority, but in some cases because of the curtailment of opportunities for personal gain available under the old system.

The Indonesia case reveals the critical role of information system design in influencing the prospects for microcomputer adoption. It also demonstrates that success in introducing microcomputers is related to many of the same factors associated with successful organizational change: top-level perception of a problem, leadership messages, training in analytic as well as technical skills, appropriate incentives, and the distribution of power within the organization. Indonesian political and MOF leaders conveyed strong, explicit support of microcomputer adoption, which helped overcome resistance. To integrate analytic and technical skills, the MOF set up teams of PAIK and tax specialists. Working together, the tax officers gained better understanding of the principles of microcomputer systems, and PAIK staff developed better comprehension of tax issues, although there were still some difficulties in practice. PAIK explicitly addressed the incentives to induce district staff to learn to use microcomputers through extra compensation. Staff also perceived the training as increasing their personal employment prospects. There was no attempt by MOF leaders to design incentives to win over district office directors; and, given the real losses in local autonomy and power, it would be difficult to do so.

Source: Brodman (1986, 1987)

improvement intervention. This is the topic of the next chapter. Computers have the potential to change the power and control relationships within organizations and program structures (Kraemer and King 1986, Thompson et al. 1989). Box 6.5 offers an example of this potential in the case of microcomputer introduction in Indonesia.

GUIDELINES FOR SYSTEMS AND PROCESSES

Summarized here are the chapter's suggestions for program systems and processes.

Guidance Systems

- Create a guidance system that blends control (structure) with adaptation and discretion (flexibility) to achieve performance. For most situations, a multiyear strategic framework with an annual guidance cycle represents a good balance between the effort needed to undertake the process and the results achieved. For programs operating in particularly uncertain and turbulent environments, and/or using highly innovative and

untested technologies, the cycle might need to be accelerated.

- Develop a guidance system via the five process steps: (1) set annual program priorities (from program design and plans broken down by activity set), (2) communicate priorities to program staff, (3) prepare workplans by activity set, (4) review and consolidate activity workplans into an annual program plan, and (5) use the plan to monitor and guide implementation and future planning.
- Use workshops and task forces as the mechanisms to cycle through the steps of the guidance system.
- Employ an open, participative process to the extent feasible; sometimes it is better to sacrifice technical sophistication to maximize involvement. Bring together those with appropriate knowledge and skills, plus other stakeholders. Participation will improve the quality of the information collected and included in plans and will help to build commitment and understanding, making monitoring and control easier.

Reporting Systems

- Base reporting systems on the principles of economy, differentiation by user, and parsimony. Recognize that effective systems build compliance with reporting requirements through participation and consensus building. This is critical because program reporting systems are mainly horizontal; managers have limited authority to "command" compliance from implementing partners.
- Develop initial systems by (1) identifying key decisions and decision-makers (what information for whom?), (2) determining periodicity (when?), (3) identifying sources (where from and how?), and (4) specifying transmission points (what to whom?).
- Review the initial system and revise it to minimize reporting overload and redundancies and to maximize utility. Plan system installation as a project; recognize the need for experimentation and adaptation. The first version of the system will not be perfect.

Financial Systems

- Existing SOPs will likely determine the shape of the system's accounting and financial control functions. Make modifications that fulfill the more strategic financial management function that feeds into guidance. These include collecting and analyzing information on costs and/or revenues by program or subprogram (project), operating and maintenance costs associated with capital investments, recurrent cost

projections, and so on.

- Use system outputs for marketing and publicity; match information to recipient interests and priorities. What do the finance ministry, politicians, international donors, etc., want to know regarding program finances?
- Recognize the need for financial flexibility; resist the urge to overcontrol funds use. Aim for getting agreement from implementors and sources of funding on discretionary spending within certain limits, subject to postexpenditure review. Be prepared to trade more detailed information on results and achievement of objectives for increased spending autonomy.

Computerization

- For all kinds of systems—guidance, reporting, and financial—start with the system and its processes. Do not start with computers; if there is no system, there is nothing to computerize.
- Treat computerization as an organizational change intervention with policy and behavioral dimensions. It is not simply a technology. Computers hold great potential for increasing efficiency and contributing to effectiveness, but do not become overly enamored of the computer mystique. Remember that computerized garbage is still garbage—it just looks more impressive.

NOTES

1. An excellent source for conceptual background on guidance and control in public sector settings is the collection contained in Kaufmann, Majone, and Ostrom (1986).

2. David Korten's learning process approach to development is based on the premise that bringing beneficiaries together with service delivery personnel and resource providers is the most effective way of achieving development results relevant to people's needs and also of giving people some element of control over their lives. For Korten, guidance has both strategic and empowerment dimensions. See Korten (1980, 1984) and Korten and Alfonso (1983).

3. The Performance Management Project supported the development, refinement, and developing country adaptation of many of the tools of project planning and guidance. NASPAA, DPMC, and IDMC have all produced training materials in the use of project management tools.

4. Interestingly, as IDMC has revised and adapted the PAR format and refined the steps of the program guidance system in working with developing country program implementors, the level of information detail in the PAR has been reduced. In practice, managers have not needed as many specifics as originally thought. The prin-

ciple of "optimal ignorance" holds for program guidance systems; people can use only a limited amount of information and need to develop means of reducing the complexity of what they receive to manageable proportions. See the essays in Simon (1970).

5. See, for example, the World Bank working papers on information management for rural development in Africa (Deboeck and Kinsey 1980) and East Asia (Deboeck and Ng 1980), and the reports of USAID's Center for Development Information and Evaluation (CDIE), such as the volume on guidelines for data collection, monitoring, and evaluation plans (Norton and Benoliel 1987).

6. The management subfield of budgeting and financial control in organizations is extensive, and to summarize it all would entail a book in itself. Similarly, much has been written on finance and budgeting in developing countries; see, for example, Joseph's annotated bibliography (1982). This section highlights a few key points on financial systems for programs. It draws principally upon the Performance Management Project's work on financial management in the Sahel. See Kettering (1982, 1985), and Kettering and Lusby (1984). Readers seeking more depth or breadth on financial systems should consult the numerous reports of the United Nations' Department of Economic and Social Affairs, or one of the many financial management textbooks. One of the latter, particularly useful for public program managers, is Anthony and Herzlinger's classic on financial control in nonprofit organizations (1980).

7. The literature on program budgeting is vast, and much of it highly technical. Public sector organizations in developed countries have experimented with various ways of relating resources to outcomes, and several of these have attained "buzzword" status at various times; recall PPBS (planning, programming, and budgeting systems), PBO (programming by objectives), and ZBB (zero-based budgeting). None of them have fared very successfully in practice, either in the United States or in developing countries. See Delp et al. (1977) on PPBS. The best general overview of public budgeting in developing countries remains Caiden and Wildavsky (1974). See also Caiden's more recent articles (1980, 1985a, b).

7

Making the Most of People: Human Resources

Among the functions of the program manager discussed in Chapter 2 is the development of human resources. Programs, and organizations, are mechanisms that accomplish their ends through the concerted efforts of people. On occasion this simple fact is lost or ignored in the technical and bureaucratic language that characterizes the written and oral communication managers encounter (or generate) in the course of their activities. But development objectives, program plans, structures, procedures, and so on—in short, the entire gamut of activities (both macro and micro) undertaken in the name of socioeconomic development—all relate to people, as ends and as means. Development program managers deal with people in both categories. Their program goals in whatever sector ultimately seek to provide selected groups of people with some set of benefits, whether goods, services, or both. They achieve these goals through the collective actions of the people connected in various ways with their programs' rationales.

This chapter deals with people mainly as means, as one of the types of resources managers employ to accomplish program ends. However, we will argue that to manage human resources effectively involves treating program people as ends too, not simply as instruments.[1] The chapter begins with a discussion of a number of basic human resource issues generic to managing programs in developing country settings, targeting the incentives and motivations emerging as a result of the context for human resources. Program leadership is considered next. The chapter then turns to the role of training, which has received a large amount of attention by developing country governments and donor agencies alike and is a significant component of many international assistance operations. Finally, a set of guidelines for human resource management in programs is offered.

HUMAN RESOURCE ISSUES: THE PUBLIC SECTOR LANDSCAPE

Chapter 3 talks about looking outward at program environments and identifying the factors most important for success. Critical for development managers in the public sector are those factors that affect the human resources they work with to implement their programs. The SOPs for government staffing and personnel can be among the most troublesome constraints program managers must deal with in the course of carrying out their responsibilities.

The contours of the organizational landscape for public sector staffing and personnel are relatively uniform across a broad range of developing countries. Any particular setting consists of a mix of some or all of the following: lack of job-related hiring criteria, with an emphasis on personal (in some cases, tribal) connections; centralized and unwieldy personnel systems; powerful and change-resistant public employee unions; rapid turnover or frequent vacancies in critical slots; lack of basic information on numbers and categories of employees, salary structures, and projected retirements or hiring needs; ballooning public wage bills; inefficient and ineffective in-service training; and mismatches between government functional and operational requirements and employee profiles.[2]

Employment Policies and Practices

A major defining feature of the public work force stems from the often-encountered policy, official or de facto, that the government is the employer of last (or sometimes first) resort. Particularly in Africa, public employment constitutes an extremely high proportion of total employment. Thus, in developing country public sectors, organizations are frequently overstaffed, or the number of organizations has increased to accommodate more people. This policy has fueled the growth in the public wage bill to disastrous proportions. For example, in the Central African Republic the wage bill absorbs over 60 percent of domestic revenues; in Senegal the proportion is about 50 percent (Nunberg and Nellis 1989). In the wake of economic downturn, where government revenues have dropped, the wage bill has contributed in many countries to national budget deficits and a progressive strangulation of government activity as available funds are allocated to salaries while the nonwage expenditures needed for operations are cut.

Exacerbating the problems deriving from sheer size of public employment is the staffing pattern that results from the hiring and qualifications criteria of government personnel systems. In public sector hiring, most developing countries emphasize academic degrees at the expense of professional experience, and within different sectors, the narrowness of acceptable academic qualifica-

tions limits the number of competent candidates in the hiring pool.[3] Because of the twin tendencies to select for academic qualifications and undervalue work experience, government agencies end up not only with too many staff but with staff who lack the technical and professional competencies to perform needed functions. For example, in Haiti's planning ministry in the mid-1980s, the unit responsible for monitoring, evaluating, and making recommendations to improve development project implementation was staffed by twenty-three sectoral specialists and financial analysts. Of those twenty-three, only three had had previous field experience in project implementation. This staffing pattern significantly limited the planning ministry's performance, not to mention its credibility with both the sectoral ministries and donor agencies (Brinkerhoff 1987).

Further, employment SOPs often severely constrain any kind of staffing flexibility, whether hiring, transfers, or promotions. Initial hiring procedures can be excessively lengthy—for example, an average of two years in Sierra Leone to process new hires in the agriculture ministry. To react to new needs quickly or obtain the staff competencies the standard personnel system cannot furnish, agencies often resort to a variety of contractual mechanisms or subterfuges.

Remuneration Policies and Practices

Public sector salaries are a particularly thorny subset of the factors shaping the human resource context. In many developing countries, the salary structure is not competitive with private alternatives; as indigenous private sectors gain in vitality and size, demand for qualified people pushes wages higher, fostering a brain drain from the public to the private sector. This is particularly true for the relatively small cadre of truly qualified people, many of whom end up in the international job market.[4] In some countries, mainly in Africa (but also in parts of Latin America and the Caribbean), salaries are insufficient for basic economic subsistence, and public employees resort to various forms of moonlighting and/or corruption. Gould's (1980) study of the public service in Zaire, for example, illustrates a situation where corruption has been institutionalized as a bureaucratic way of life. Mexico is another country whose civil service is well known for its graft, clientelism, and corruption (see Benveniste 1970 and Grindle 1977).

Donor-funded projects and programs often add to the remuneration problem by wooing qualified host country personnel away from their regular positions to take up contractual posts within project implementation units at higher salaries and benefits (see Honadle and VanSant 1985). This reinforces the tendency of the public sector's "best and brightest" to leave civil service posts for

greener pastures, thereby further weakening public sector performance and capacity (Klitgaard 1989). It also puts upward pressure on salary scales as governments struggle to retain some degree of competitiveness. One rationale behind the public sector downsizing included in structural adjustment programs is that by reducing the total number of employees, those remaining can be offered higher, more competitive salaries and benefits. In practice, however, the amounts available for redistribution have in many cases been less than anticipated given that the politically easiest categories of staff to cut are those at the bottom, who receive the lowest salaries, thus freeing up only a relatively small increment of additional funds. Further, it has been hard for governments politically to justify raising salaries at a time when many people have just lost their jobs.

Box 7.1 provides an example of the human resource setting in Guinea. While sub-Saharan Africa contains many of the most extreme cases of deprived and dysfunctional public employment environments, the issues are salient, although to a lesser degree, for much of the developing world.

INCENTIVES AND MOTIVATION

The point of looking at the human resource context sketched above is to identify what kinds of incentives and sources of motivation, both positive and negative, are operating. The stakeholder analysis (Chapter 3) can be used for this purpose. Since management involves accomplishing ends through the actions of people, managers need to know something of what cues, or "messages," the context emits, since these condition the behavior of program staff, beneficiaries, and other stakeholders. This knowledge helps managers to identify "levers" that can be applied to shape individual and collective behaviors in ways that promote program goals and activities (see Heaver 1982).

The relationships among incentives, motivation, behavior, and performance have been extensively analyzed.[5] Like most social phenomena, they are relatively complex, situation-specific, and resistant to generalization and prediction. An enduring debate has emerged over the question of the applicability of theories and techniques developed by Western management scientists to different cultural environments (see Moris 1977, Hofstede 1984, Bourgoin 1984, and Dia 1989). Although cultural differences add further complexity to management technology transfer, convincing evidence exists that organizations create some relatively universal behavioral dynamics across cultures (see Blunt 1983). Leonard's (1977) study of the Kenyan agricultural extension system is particularly instructive (see also Chambers 1974). The experience of USAID's Performance Management Project confirms these universalities as well. Hage and Finsterbusch (1987: 232-236) found, for example, that the dynamics of organizational change were valid across a wide range of cultures. Further, much

Box 7.1 Human Resource Dimensions of Managing the Ministry of Agriculture in Guinea

With the death of Sékou Touré in April 1984, and the advent of the Second Republic, headed by General Lansana Conté, Guinea emerged from a long period of economic stagnation and political repression. The new government has set out to disassemble the social, economic, and political structures of the previous government and to replace it with a new society based on principles of political choice and free enterprise. Since 1984, Guinea has experienced dramatic currency devaluations, liberalization of commodity markets, reduction and reorganization of the civil service, privatization of public enterprises, abolition of collective farms, and elimination of the party-state apparatus.

Many of these reforms, and the development investment programs related to them, fall under the responsibility of the Ministry of Agriculture (MARA). The MARA was formed in 1986 by collapsing three ministries into one. Ambiguities in the reorganization legislation and the lack of specificity in operational roles and responsibilities created confusion among MARA personnel. The MARA's difficulties were compounded by the legacy of the past: inadequate systems, crisscrossing informal patterns of interpersonal communication and of lines of authority, absence of job descriptions, lack of established procedures, and so on.

Particularly troublesome for MARA leaders has been the human resource base they have had to rely upon to implement their new programmatic mandate of liberalization and privatization. First, staff skills were in many cases totally inappropriate or nonexistent. Because much of the staff had gained their education and work experience under the statist Touré regime, few had skills related to (or attitudes supportive of) private enterprise and liberalized markets in agriculture. Much of the country's qualified human resources had fled during the Touré era. Other technical skills were lacking; for example, in 1986, MARA's planning and policy unit and its administrative and financial unit had no staff with any budget, accounting, or personnel experience.

Second, staff salary levels were so low that fulfilling minimum subsistence needs required obtaining supplemental income. In 1985, the average salary plus allowances for civil servants and public enterprise employees was about $26 a month. Basic subsistence at that time in Conakry, the capital, where most employees live, was estimated at $75 per month. Civil service reform raised salaries to an average of $41 a month by 1988, but price increases and the elimination of subsidized rice rations raised the minimum survival salary to around $125 a month. Guinean civil servants have continued to resort to other means to make ends meet, such as increasing their incomes through the illicit resale of government property. Black market sales of government gasoline, for example, have been estimated at times to be more than twice the monthly payroll of the entire civil service.

Third, staff morale was low, and attitudes were negative. Part of the World Bank–funded civil service reform mandated large cuts in the public work force. Plans in 1986 called for a staff reduction in the MARA of 7,000 from an estimated total of 15,000. The targets have been postponed several times as Guinea tries to deal with the political ramifications, and MARA staff have faced a high degree of uncertainty over several years. The effects on morale and motivation and workers' fears of ethnic or personal favoritism have been predictable. The pending cuts have also slowed plans to upgrade needed technical skills, since managers are not sure which personnel will remain, particularly for staff below the division-chief level.

Source: Olson (1986) and Leighton (1988)

of the project's technical assistance activities were implemented through joint U.S.–host country national teams (see, for example, Boxes 4.4 and 8.1). It was found that the host country members, whether African, Asian, or Latin American, responded positively to collegial management styles, participatory processes, planning by objectives, clear specification of roles and responsibilities, and so on. All of these are Western management practices intended to foster motivation and performance.[6]

From a management perspective, the central notion relating to incentives and motivation is that of a transaction, or exchange, between the person and the organization (recall the stakeholder analysis in Chapter 3). By setting or influencing the terms of this transaction, program managers balance, or match, what their programs can offer people to fulfill their needs and desires (people as ends) with what people can contribute that the program needs to achieve its goals (people as means).[7]

Through designing program content, building implementation structures, developing procedures, and adapting to their environments, managers shape the needs and capabilities of their programs. These then must be matched with the needs and capacities of the people available. Or, the available people need to increase their capacities to fit the program's demands (see the section on training later in this chapter). This matching sounds relatively simple, but in practice getting a good match can be elusive. Because program tasks and people are not static—both change over time—a match may not last. Managers and the people involved may have difficulty communicating and understanding their needs and capacities well enough to achieve a good fit. This makes doing stakeholder analysis all the more important.

Or, as the preceding section indicates, developing country contexts often contain factors that inhibit a match. For example, some programs' capacity to provide remuneration and rewards is so limited that they cannot come close to the individual staff members' needs, desires, or expectations. Silverman (1990: 108) discusses public employee motivation problems through an analogy to subsistence farmers and talks about "subsistence civil servants":

> It is well understood that farmers . . . cannot be motivated to produce above subsistence when the economic cost of inputs is negative or when there is nothing on which to spend profit. In the same manner, subsistence civil servants will not be motivated to increase their expenditure of "inputs" (e.g., personal time, energy, commitment, and exposure to risk) without, at a minimum, a subsistence level economic return to such investment.

A primary source of motivation comes from program managers in their role as leaders. Leadership is an important variable to consider in looking at incentives and motivation because, unlike many of the factors discussed above, program managers have significant control over whether they exercise their leadership role effectively.

PROGRAM LEADERSHIP

Much of this book is about leadership in one form or another. In fact, a core component of being a manager involves being a leader. Program managers exercise leadership in many ways, as previous chapters indicate: representing the program to the public, lobbying and bargaining for support from important stakeholders, interpreting the program to beneficiary groups, allocating program tasks among implementors, and so on. The focus in this section is on leadership as a set of behaviors that can have a positive impact on program incentives, motivation of program staff, and performance.

Leadership, like motivation, has also been the subject of a vast amount of study, and we cannot do justice to the topic here.[8] A quick tour of approaches to leadership has four "stops." The first is leadership as traits, or in popular parlance, "leaders are born, not made." Here leadership is viewed as a function of personal characteristics, intelligence, charisma, dominance, bearing, and so on. The second is leadership as positional; leaders are those who occupy positions of authority and decisionmaking power at the upper levels of organizational hierarchies, for example, division chiefs, directors general, ministers, presidents, or heads of corporations. Leadership as situational is the third approach, which sees successful leaders as those who fit the demands of a particular situation. These demands include the expectations and needs of subordinates, the knowledge required by the content or combination of tasks to be done, and the characteristics of the organization or program structure. Fourth is the transactional approach to leadership. Successful leaders do not simply adapt to a given situation, they actively intervene to adjust the expectations of subordinates and stakeholders, they modify program objectives and strategies to increase the chances of success, they divide up the work to be done to best take advantage of available resources, they build teams and seek to increase employee confidence and skills, and they clarify targets and the rewards to be gained from meeting them.

The perspective on leadership taken throughout this book sees effective leadership in terms of the transactional approach. Proactive management, as discussed in Chapter 3 regarding looking out at the environment and in Chapters 4 and 5 about looking in at program design and structure, relies principally on identifying and seeking to establish the kinds of transactions, both external and internal to the program, that will better the chances for success. In essence, program leadership means being entrepreneurial and political (in the positive, not the Machiavellian, sense), not accepting situations as givens but looking for those levers that can be pushed or nudged, negotiating, and so on (recall Table 3.4). This kind of leadership does not exclude the use of inspiration and charisma, should the program manager possess such traits. Several of the most successful development programs have been greatly facilitated by the actions of charismatic leaders, for example, Akhter Hameed Khan in Pakistan's

Comilla Project (Brinkerhoff 1980, Raper 1970), Verghese Kurien in India's Anand Dairy Cooperatives Program (Korten 1980, Paul 1982), or Y. C. James Sen in Taiwan's literacy movement (Mayfield 1986).[9]

Management Style

The nature of programs and the public sector human resource landscape overviewed above have several implications for program leadership. First, because programs are complex structures that cut across multiple organizational boundaries, and may include private sector and/or voluntary organizations, program managers must rely much more on collegial interactions, horizontal communications, and influence than on authority, top-down directives, and hierarchical control to exercise leadership. Many developing country bureaucratic environments, though, have strongly authoritarian and hierarchical norms, some of which link to cultural patterns and others, in certain cases, to colonial legacies. The predominant view of leadership is positional, and subordinates' expectations are that the leader will make all the decisions, issue orders to be carried out, and follow through with close supervision and disciplinary action to ensure compliance.

However, program managers must lead with influence, not authority (see Cohen and Bradford 1990 and Kotter 1985); they will almost never be in a position to exercise direct control over implementing agents.[10] Further, the attitude that subordinates' or implementing units' sole responsibility consists of faithfully executing directives inexorably leads to passivity and risk-avoidance. This reliance on the manager to do practically everything produces overload of those in upper-level positions. In many countries, this pattern meshes with the lack of adequate remuneration and limited operating resources to create a downward spiral of nonperformance. Heaver (1982: 26) notes that many public employees in developing countries are "more reactive than proactive in their attitudes, and some are plain lazy and will be unresponsive even to a custom-designed incentive system."

Among the first (and admittedly difficult) tasks of program leadership may be to modify the expectations of subordinates away from seeing their role in implementation as a machine-like, reactive one with no attention to results. In the middle-range developing countries, however, among the increasingly qualified technical and administrative cadres with international educational backgrounds and high aspirations, particularly some of the younger members, expectations may be already similar to those held by comparable personnel in developed countries. For example, U.S.-trained scientists at Morocco's Agronomic and Veterinary Institute Hassan II (IAV) aspire to the same research, service, and peer recognition goals found in U.S. university faculties. The institute's director faces a leadership challenge with strong parallels to

research and development management in a corporate or laboratory setting (see Miller 1986).

The appropriate management style for program leadership mixes being directive with being supportive, recognizing that managers cannot control outcomes, only influence them (Stout 1980). The directive component contains the following behaviors: setting work targets and deadlines, clarifying responsibilities and tasks, distributing work, establishing accountability and reward parameters, and applying rules and procedures (people as means). Supportive leadership behaviors include designing tasks to contain some intrinsic satisfaction, encouraging autonomy and initiative, offering praise and public recognition for reaching goals, recognizing individual needs, empowering work groups, and fostering joint problem solving (people as ends). Common to both behavior sets is the use of a collaborative, collegial, nonjudgmental style.

It is important for program managers to recognize that they as individuals do not necessarily have to be the ones to engage in all of these behaviors. Some can be handled by delegation to various configurations of program partners. Such delegation enhances the team operating mode of program implementation and also reduces the pressure on program managers as leaders to be "all things to all people." For some people, in fact, delegated responsibility serves as a motivator.

Searching for Incentives

Given the human resource constraints imposed on program managers by their bureaucratic settings, the search for workable incentives can be frustrating. If the public sector personnel that managers have available do not receive a subsistence wage, it can be difficult, if not impossible, to create any incentives to performance that can have more than a temporary and ephemeral impact. In some cases, managers may have to reach informal agreements with staff that taking second jobs will be tolerated in exchange for part-time work on the program, despite the fact that officially staff are assigned to the program full-time. Another possibility for programs that have private sector components is to move key tasks to private entities, where incentive structures are more flexible and direct rewards for initiative and performance can more readily be established.

If programs have external resources available, the constraints on incentives can sometimes be eased. Many donors support policies of salary supplements for work on projects and programs, although the impact of these policies on the sustainability of public work force performance is ultimately negative. Sometimes nonfinancial incentives can be created that can be both relatively low-cost and motivational. In the Moroccan IAV case, the faculty are unionized public employees whose legal statute does not specify any duties beyond teach-

ing a certain minimum number of hours. However, motivation among most professors to do research and consulting and to maintain quality teaching is high, owing to a mix of incentives generated by a USAID institutional development project (see Morton and Lowenthal 1990). Faculty have opportunities for international travel to conferences, U.S. degree training, publication of research findings in international journals, access to current literature and research findings, and grants and contracts to fund research. They also have the high status that goes with membership in the international scientific community. For professionals, these are important motivators. A critical issue facing the IAV is how to maintain these incentives following the termination of external support.

Because managers' discretion over remuneration and advancement of program staff is so constrained, the main arena that they have to operate in is that of nonfinancial incentives. This arena offers managers more options than are apparent at first glance. Cohen and Bradford (1990, Ch. 4), in their book on managing by influence, categorize the options into motivators related to inspiration, task accomplishment, position, interpersonal relationships, and personal factors. They refer to incentives in terms of "currencies" managers can use as exchange media with their subordinates, superiors, and collaborating colleagues, either as individuals or collective units. Table 7.1 provides their illustrative list of these "currencies."

The similarities of organizational dynamics across cultures, referred to above, mean that these motivators can be used in various combinations by program managers in a wide variety of countries. What it takes for any manager to use them is some homework on what the actors in a particular circumstance value and what an appropriate "currency exchange rate" might be. For example, in Portugal's Program for Limestone, Fertilizer, and Forages (PROCALFER, see Box 8.1), staff were motivated to work on improving PROCALFER's budgeting system partly by the opportunity to learn to use microcomputers (Ingle and Connerley 1984). Table 7.1 shows that learning is a task-related incentive. The incentives mentioned for the professors at Morocco's IAV fall into the inspiration- and position-related categories.

THE ROLE OF TRAINING

As previously noted, one of the ways of achieving a fit between the tasks to be done and the people to do them is to provide training. Both technical and management training have been used by donor agencies and developing countries as means of solving immediate human resource gaps for project implementation (see Honadle and Hannah 1982 and Whelden 1982) and of expanding the pool of qualified personnel over long periods of time to build up critical masses in priority areas (Moock 1984, Solomon 1983). A major target of USAID insti-

Table 7.1 Currencies Frequently Valued in Organizations

Inspiration-Related Currencies	
Vision	Being involved in a task that has larger significance for unit, organization, customers, or society.
Excellence	Having a chance to do important things really well.
Moral/Ethical Correctness	Doing what is "right" by a higher standard than efficiency.
Task-Related Currencies	
New Resources	Obtaining money, budget increases, personnel, space, and so forth.
Challenge/Learning	Doing tasks that increase skills and abilities.
Assistance	Getting help with existing projects or unwanted tasks.
Task Support	Receiving overt or subtle backing or actual assistance with implementation.
Rapid Response	Quicker response time.
Information	Access to organizational as well as technical knowledge.
Position-Related Currencies	
Recognition	Acknowledgment of effort, accomplishment, or abilities.
Visibility	The chance to be known by higher-ups or significant others in the organization.
Reputation	Being seen as competent, committed.
Insider/Importance	A sense of centrality, of "belonging."
Contacts	Opportunities for linking with others.
Relationship-Related Currencies	
Understanding	Having concerns and issues listened to.
Acceptance/Inclusion	Closeness and friendship.
Personal Support	Personal and emotional backing.
Personal-Related Currencies	
Gratitude	Appreciation or expression of indebtedness.
Ownership/Involvement	Ownership of and influence over important tasks.
Self-Concept	Affirmation of one's own values, self-esteem, and identity.
Comfort	Avoidance of hassles.

Source: Figure 4-1, p. 79, from: Allen R. Cohen and David L. Bradford, Influence Without Authority. Copyright © 1990 by Allen R. Cohen and David L. Bradford. Published by John Wiley and Sons, Inc. Reprinted with permission.

tution building has been training institutes and schools (Rondinelli 1987, Schaeffer 1985). This latter approach has also been the province of foundations, such as Ford, Rockefeller, and Kellogg. For example, India's scientific cadre in agriculture was created this way over twenty-five years or so (Goldsmith 1988). Brazil's agricultural capacity was built in this fashion as well (Peterson et al. 1969).

This book is about management, so the discussion here concentrates on management training. Limited managerial capacity is a well-recognized constraint to development in the Third World (see, for example, Bryant and White 1982, World Bank 1983, and Paul 1986). The role of training in increasing managerial capacity has been extensively explored; this section selects from what has been learned those lessons applicable for program managers.[11]

Managers, looking in on their programs and the human resources they potentially have to work with, will see a range of degrees of fit that could be improved with training. Junior staff just out of university or a training institute, for example, may have appropriate classroom knowledge of management but lack the skills to apply it to real-world situations. On the other hand, sectoral specialists with technical training and long field experience but called upon by the program to perform managerial roles may lack basic knowledge of management concepts and techniques. Middle managers or senior administrators may have the requisite managerial knowledge and skills in applying it but may hold attitudes that impede program implementation. For example, they may favor authoritarian behaviors unsuited to the program's matrix structure, they may be reluctant to delegate or want to monitor staff too closely, or they may feel that program beneficiaries are ignorant traditionalists with nothing useful to tell implementors.

The first step for program managers, then, is to decide which kind of training objectives match the needs of their people. Are the problems related to lack of conceptual or technical knowledge, practical skills, or attitudes? Finding the answers to these questions may be as simple as conducting an informal review of staff performance coupled with some interviews, or may require a formal training needs assessment conducted by outside experts. However formal or informal, some kind of needs assessment is critical. A weakness in many developing country human resource management systems is the failure to fit training to real needs. As an aside, there is also the issue of fitting organizational needs to training. Managers should beware of the temptation to assume a priori that every performance problem demands a training solution (see Chapter 8). Box 7.2 illustrates an innovative case of training needs assessment.[12]

Kerrigan and Luke (1987: 152-159) specify eleven types of management training objectives in developing countries. The first six they class as immediate objectives: acquire knowledge, develop concepts, understand techniques, and acquire skill in the use of techniques, in the analysis of organizational problems, and in the design and implementation of action plans. Two are intermediate objectives: develop appropriate attitudes and transfer learning. The last three are long-term: build capacity, inspire continued learning, and develop mature judgment.

The next step is to decide what approach to training will best achieve the desired objective(s). There are basically four approaches to management training in predominant use. In descending order of their prevalence, these are (see Kerrigan and Luke 1987: 23-34; cf. Wooldridge 1988):

- Formal training (e.g., lectures, case studies, simulations, academic courses)
- On-the-job training (e.g., coaching, counterpart mentoring, job rotation, secondment)

Box. 7.2 Training Needs Assessment in Southern Africa

In 1983, the Regional Training Council of the Southern African Development Coordination Conference (SADCC) sought assistance to undertake a study of management training needs in the region, based on the shortage of qualified managers identified as a development constraint by several member country manpower studies. SAADCC turned to the National Association of Schools of Public Affairs and Administration, which fielded a study team of U.S. and African experts, supported by USAID.

The team sought an assessment methodology that embraced qualitative, quantitative, and organizational aspects of the management function and that allowed the easy translation of data on skill requirements into training needs and strategies. The team decided to base the study on the actual experiences of SADCC managers. Data were gathered from two sources. First, a selected sample of public sector managers kept management diaries over a seven-to-ten-day period, which yielded 1,100 descriptions of administrative activities. Second, 3,000 "critical incidents," or management events, were collected via individual questionnaires and interviews with top, mid-level, and junior managers in the public, parastatal, and private sectors. The questionnaire asked for brief reports (twenty to fifty words) describing a specific experience or event associated with either the exercise or the absence of a managerial skill or concept. It requested the "most recent" or "next most recent" experience of the type identified to obtain a random sample of events. The average number of events reported per respondent was about eight, though some people produced as many as fifteen.

The team classified the events according to fifty different skills identified during the course of the study, as well as by sector, country, level of management responsibility, and a judgment of whether the event was a positive or negative example of the particular skill. Team members used the data base to conduct several analyses. A microlevel analysis targeted identification of types of skills required by individual managers to fulfill their responsibilities successfully. A macrolevel analysis aggregated the microlevel information to produce profiles of managerial skills required by SADCC managers by country, sector, and management level.

At the microlevel, the study identified training needs to

- expand accounting skills and improve accounting practices,
- provide strategic management skills for senior managers,
- familiarize mid- and low-level civil servants with government rules and regulations,
- expand the cadre of entrepreneurial managers in the public and parastatal sectors,
- improve management and utilization of expatriate personnel,
- develop and/or strengthen negotiating skills to deal with donors and contractors,
- prepare professional and technical personnel for entry to management positions,
- improve the management of training, and
- strengthen organizational development consulting and training skills.

Continued on following page

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The macrolevel analysis reinforced the findings of the microlevel in areas such as accounting, knowledge of rules and procedures, writing skills, personnel management, and negotiation. SADCC managers had skill gaps in motivation, interpersonal relations, and dealing with bureaucratic politics. The pattern of needs was about the same across the nine SADCC countries and was sufficiently similar across sectors to justify joint training efforts with public, parastatal, and private managers. The analysis found substantial commonality of training needs at all three management levels studied, which suggested that multilevel organization development efforts combined with training could be effective in improving performance.

Source: NASPAA (1985)

Table 7.2 Potential of Training Approaches to Achieve Various Training Objectives

TRAINING APPROACH	FORMAL	ON-THE-JOB	ACTION	NON-FORMAL
Immediate Objectives:				
1. Acquire Knowledge	●	◗	●	●
2. Understand Concepts	●	○	●	◗
3. Understand Techniques	●	◗	●	○
4. Acquire Skill in Use of Techniques	◗	●	●	○
5. Acquire Skill in Analysis of Organizational Problem	◗	●	●	○
6. Acquire Skill in Development and Implementation of Action Plans	◗	◗	●	○
Intermediate Objectives:				
7. Develop Useful Attitudes	○	◗	◗	○
8. Transfer Learning	◗	●	●	◗
Long-Term Objectives:				
9. Build Capacity	◗	●	●	●
10. Inspire Continued Learning	●	●	●	●
11. Develop Mature Judgment/Wisdom	○	●	◗	●

KEY: ● = High Potential, ◗ = Medium Potential, ○ = Low to No Potential

Source: Figure 9.5, p. 161, from: John E. Kerrigan and Jeff S. Luke, Management Training Strategies for Developing Countries. Copyright 1987 by Lynne Rienner Publishers, Inc. Reprinted with permission.

- Action training (e.g., joint problem analysis, team problem solving, custom-designed workshops, facilitated learning-by-doing)
- Nonformal training (e.g., professional associations and conferences, peer support groups, study tours)

Table 7.2 shows which of the approaches are best suited to the range of training objectives. As the table indicates, the action-training approach holds the most potential for the widest range of training objectives, followed by on-the-job training.[13] This is important to note, given the common tendency to opt unquestioningly for formal methods. Particularly if program managers face knowledge and skill gaps among their people where the need to be able to apply what is learned immediately is urgent, action-training is the most effective approach.

The third step is to identify and select the source(s) of management training. Training opportunities are found in three locations: in-country, overseas in the advanced industrial countries, and in so-called third countries (international but in the same region). In-country training can be provided by the program manager's home agency or ministry (internal training), or by an institute, school, or firm outside the home organization (external training). These locations vary in the extent to which they contain offerers of the four training approaches. Formal training is available in all three, from universities, government agencies, or autonomous institutes. By their nature, on-the-job and action-training are available mostly in-country. Nonformal training, though less prevalent overall, is available in all three locations, but to a higher degree in-country.

Box 8.1 contains an in-country action-training example for PROCALFER in Portugal. For comparison, Box 7.3 illustrates an example of a management training format developed by the University of Pittsburgh with USAID support that has been offered in all three locations. Among the differences to note is the higher level of immediate applicability to job performance in the organizational setting of the PROCALFER example, while the Pittsburgh model takes a more general, "consciousness-raising" approach.

The Special Place of Management Training Institutes

Since programs endure over relatively long periods of time, managers are likely to face in-country training needs that extend beyond a single intervention, whether formal courses or action-training workshops, or whatever. In these cases, it makes sense to establish an ongoing linkage with a training provider whose availability is assured and whose cost structure does not require continued reliance on external funding. For many programs, the source of such training will be a management training institute in the country or in certain locales

Box 7.3 The University of Pittsburgh's Francophone Development Management Seminar

In the late 1970s and early 1980s, the National Association of Schools of Public Affairs and Administration (NASPAA), with USAID funding, supported the development of a series of French-language management training modules based initially upon materials that a core group of professors and graduate students at Pittsburgh's Graduate School of Public and International Affairs (GSPIA) had prepared for use in an eight-week summer course on development management. The course, which became known as the Francophone Development Management Seminar (FDMS), was first offered in 1979 in Pittsburgh. Participants were mostly mid- to senior-level public sector managers from various francophone African countries. Response to the course was very positive, and FDMS staff were urged to offer the seminar in-country as well as in Pittsburgh.

An intensive materials development effort, involving consultations with African management and development training institutions, plus donor agencies, was conducted, leading to the first iteration of the modules in 1981. The materials were organized according to four themes: information management, human resources management, project planning and management, and financial management. Each theme was the topic of a separate module; the modules were designed to fill roughly eight to ten days of teaching, based on five-hour days. Successive revisions in the modules emerged from their use over the next few years in seminars in Djibouti, Birkina Faso, Haiti, and Congo-Brazzaville, as well as in the annual seminars held in Pittsburgh.

By the mid-1980s, the FDMS modules had been refined to the point where they served as the core for all the development management training activities GSPIA undertook, whether in the annual U.S. seminar or in seminars in particular countries. In-country seminars evolved steadily toward collaborative ventures with African institutions, such as the Pan-African Institute for Development or the Madagascar Institute of Planning. This practice helped FDMS adapt to specific training needs and at the same time built indigenous training capacity.

The majority of Pittsburgh's country-level training activities have been one-shot, sensitization efforts; these have frequently been attended by senior officials and have achieved high publicity due to coverage by the local media. During the decade of the 1980s, FDMS has contributed to a significant injection of U.S., action-oriented management concepts into African public sectors. GSPIA has continued the FDMS program into the 1990s, despite the untimely death of its founder on Pan Am Flight 103, offering seminars both in Pittsburgh and in various countries.

Source: Author, from USAID and FDMS materials

in the region (for example, Southern Africa). In this sense, then, training institutes can occupy a "special place" in program management through their contribution to improving the human resources programs utilize.

However, not all management training institutes are equally well-suited to fulfilling this role. Criticisms of institutes, both those housed within government ministries of public administration or within universities, as bastions of

"ivory tower" theorists (and often out-of-date ones at that), academicians uninterested in and unsuited for dealing with real-world management problems, and "deadwood" civil servants too incompetent to be assigned elsewhere, are frequently voiced and are all too often true. In some countries, management education has been seen as a "growth market" by public and private sectors alike, resulting in a bewildering and chaotic array of training providers whose services are difficult to evaluate. For example, in Indonesia, El Salvador, or Zimbabwe, program managers confront a proliferation of choices, some of which are of dubious quality (Schaeffer 1988).

Program managers can use a few simple criteria, however, to decide whether the institute(s) in their countries are suitable sources of training for their people. The following features have been shown to characterize high-quality training institutes.[14]

Autonomous or semiautonomous status. Institutes that are completely integrated into a ministry of the civil service, for example, are unlikely to offer an environment that attracts high-quality instructional staff. Usually institutes with some degree of autonomy have the flexibility to operate differently, thereby attracting and retaining faculty, building opportunities for research and consulting, and so. Such institutes are also more likely to function according to some kind of performance criteria.

Integrated mission. Institutes that treat teaching as separate from research and consulting quickly become havens of irrelevant and arid curricula. Integration of mission is the only way to ensure that training course content is relevant to practice and incorporates current thinking on management issues. This integration also helps provide the kind of work environment most attractive to qualified staff.

Strong leadership. In an academic or quasi-academic setting, the tendency is for faculty members to pursue their own particular interests, leading to dispersion and fragmentation. The most vital and practically relevant institutes often have a strong leader with a well-articulated vision of where the institute should go and how it should relate to client needs.

Critical mass of faculty. Institutes with small numbers of faculty face two problems. First, the breadth of subject matter expertise needed to address management and organizational problems is difficult to achieve. Second, an environment with only a few staff is unlikely to offer the intellectual stimulation needed to motivate faculty and keep them current.

Attention to faculty development. Institutes that do not employ mechanisms for faculty development become intellectual graveyards over time. Without renewal, an institute's human capital, contained in the faculty, is

depleted relatively quickly, especially in disciplines such as management, where new knowledge accumulates rapidly.

Concern for performance. Effective training institutes care about performance. Analogous to firms with after-sales service departments, the best institutes are not content simply to sell a training product. They want to know if the courses or workshops offered fit the managers' needs, how course graduates fare once back in their home organizations, and so on. This performance orientation is one major sign that an institute is interested in helping managers to do better.

One of the best-known and most successful management training institutes that meets these criteria is the Central American Institute of Business Administration (INCAE) in Costa Rica. Started with USAID assistance and modeled after the Harvard Business School, INCAE (originally located in Nicaragua) began by offering MBA degrees. The institute expanded to offer executive training seminars and workshops, and then consulting services, to organizations in the region. Its programs grew to encompass public sector and community organizations as well as private firms, and its curricula incorporated the lessons learned in hands-on work in real settings. INCAE continues to hold the reputation of being one of the premier management schools in the developing world and is an important resource to organizations and programs in Latin America. A "sister" institution of comparable quality is the Asian Institute of Management in the Philippines.

GUIDELINES FOR MAKING THE MOST OF PEOPLE

This section summarizes the chapter's recommendations for dealing with the human resource side of program management. Making the most of people, both as means and ends, will help managers gain the most for their programs.

- Scan the environment for the critical features that will influence staff behavior: incentives and (de)motivators. These include SOPs for hiring, salary, bonuses, advancement, and so on. Include the categories of incentives in Table 7.1. Use stakeholder analysis to compare interests with incentive patterns.
- Review the staff available (currently or potentially) for program implementation in light of the different activities the program engages in. Look for matches and mismatches. In the case of mismatches, try to assess the sources of lack of fit; do they lie mainly with the person, the program, the implementing organization(s), or a mix?
- Communicate to program staff that performance matters, that is, getting goods and services to intended beneficiaries. Even if the surrounding setting has major constraints in this regard, do not accept these as

givens. Develop and try out reward systems, perhaps informal, that recognize and reward people for achieving results, not simply "going through the motions."

- Recognize the importance of effective transactional leadership to managing programs and people. Program structures are managed more by influence than authority; use bargaining, exchange, and negotiation (see Table 3.3) as leadership strategies. Remember that effective leadership can be a motivator in and of itself.
- In blending directive with supportive leadership behaviors, emphasize helping people to do their jobs better instead of pointing out and punishing failure.
- Set work targets collaboratively with program staff. Be willing to delegate, but set a time frame for review of delegated activities to avoid losing control. Be willing to distribute leadership roles throughout the implementation structure (but don't forget to monitor what has been delgated); program leadership is a "team sport."
- Remember that a program's human resource picture is more like a movie than a still photograph. Neither programs nor people are static; needs, desires, skills, and so on will shift over time. Succession, turnover, and change are normal and need to be planned for.
- Training will likely surface as an important component of program management, given that human resource development is part of the program manager's function (Chapter 2). Training should not be handled ad hoc but planned for. In developing training plans, conduct training needs assessments. Determine whether needs relate to knowledge, skills, or attitudes (or a mix). Establish explicit training objectives; and, using Table 7.2, select the most appropriate training approach(es) for the needs and objectives. Where possible, emphasize action-training.
- Identify the best source(s) of training available to the program. Seek if possible to establish an ongoing relationship with a local training institute (or firm) based on the criteria listed above.

NOTES

1. In fact, an important aim of development itself is to build and strengthen people's capacity to undertake the tasks needed to better their lives.

2. The World Bank has recently undertaken a number of studies of developing country public sector staffing and personnel in support of structural adjustment programs, whose objectives frequently include administrative reform. This section draws on several of these studies. See Nunberg (1989) and Silverman (1990).

3. These kinds of employment policies and practices are the driving force behind the "degree mania," the thirst for training, and the rampant credentialism common among the educated classes in most developing countries. Dore (1976) refers to

this phenomenon as the "diploma disease."

4. This lack of competitiveness is expressed in the compression of the wage structure, resulting in top-level salaries that are very low multiples of the lowest levels. For example, the World Bank–supported administrative reform in Ghana has sought to decompress the public wage structure; between 1984 and 1989 the ratio moved from 2.5:1 to 7.8:1, and the government hopes to reach 13:1 by 1991 (Nunberg and Nellis 1989: 19).

5. A concise review of analysis and findings in these areas with particular reference to their application to public management can be found in Stewart and Garson (1983). The authors also provide numerous references for those interested in further information.

6. See Kettering (1981) and the examples cited in Brinkerhoff and Ingle (1989).

7. Among the pioneers in thinking of organization-individual relationships in this way were March and Simon (1958). They analyzed the management of incentives and motivation in terms of what they called the "contributions-inducements balance."

8. See the comprehensive treatment in Bass (1990). For other sources, see Bass (1985) or Vroom and Jago (1988).

9. The term "transformational leadership" is used by some to characterize the blend of transactional leadership with charisma and inspiration. See, for example, Bass (1985) and Conger (1989).

10. Even within single organizations where managers have the possibility to exercise greater authority, equating management with control does not produce results effectively (see Stout 1980). As discussed throughout this book, effective program management and leadership depend upon the exercise of influence in situations where the individual's sphere of responsibility extends beyond that of formal authority.

11. Management training is arguably the largest subcategory of both the business and development management literatures. For an early but still timely source, see Lynton and Pareek (1967). See also the extensive bibliography in Kerrigan and Luke (1987), another in the Lynne Rienner series, Studies in Development Management. This section draws particularly on Kerrigan and Luke's Chapters 10 and 11 (1987: 167-205).

12. The results of this study have been used in several published sources. See Montgomery (1986, 1987, 1988).

13. Kerrigan and Luke (1987: 160) developed these ratings based on their comprehensive review of the training literature and of reports of experience in using each of the approaches. They qualify their ratings by noting that the comparisons summarized in the table are based upon an assumption of optimal conditions:

> 1. "The strategy at its best": Each approach is designed appropriately, so that the best mix and sequencing of methods is utilized and an effective learning climate is created.
>
> 2. "Trainer excellence": The trainer is highly competent in his [or her] facilitation of learning.
>
> 3. "Motivated and capable learning": The learner is assumed to have the desire and capacity to acquire, retain, and apply the learning.

They add as a caveat that in developing countries complete optimality cannot be assumed.

14. This list is from Kerrigan and Luke 1987: 204-205. Confirmation of the validity and importance of these features for the larger realm of training beyond the management area comes from a comparative study that looked at institutional sustainability of agricultural universities worldwide. See Brinkerhoff and Goldsmith (1990), especially Chapter 14.

8

When Things Don't Work: Performance Improvement

One of the functions of program management, described in Chapter 2, is building implementation capacity in organizations participating in programs. In Chapter 4 we saw that one of the design options managers have for fitting the level of innovation in their programs to their implementing agencies is to increase the ability of the agencies to handle innovation by building their capacity to reflect, learn, and adapt what they do. Sometimes program managers are not aware of gaps in implementation capacity at the design stage; failings and weaknesses do not show up until program activities begin. When things don't work, managers confront the need to do something to get performance back on track. But, what to do?

This chapter responds to this question, which in practice consists of a set of several related questions managers need to address to help their programs improve performance and build implementation capacity. The discussion examines the issues these questions raise and offers some guidelines in conclusion.[1]

WHERE DOES IT HURT?

Without a perception that there is a problem, performance improvement has no starting place. The necessary impetus is the identification of a difference between some actual state and a desired one. In short, no (perceived) pain, no (potential) gain. Just like seeking medical help, program managers need to feel some kind of performance pain; the first question, then, is, Where does it hurt? Perceived performance pain can emerge from several possible, interrelated sources:

- Inadequate production levels of goods and services: The program does not produce enough of what it is supposed to.
- Inefficiency: The program consumes too many resources for the outputs

it produces.

- Ineffectiveness: The program's outputs are not used as intended and/or do not induce the desired development results and impacts.
- Inadequate innovation and/or adaptation: The program fails to respond to changes in client needs or demands, technology or resource changes, or environmental shifts.
- Staff and/or client dissatisfaction: The program fails to provide sufficient incentives and motivation (or marketing) to program participants.

It should be noted that perception of performance gaps from any of the sources in this list is facilitated by articulated definitions of performance and outputs, plus clear measures. For example, the impetus for Jamaica's National Planning Project, which built the capacity of the government to plan and implement development projects, came from Jamaican government and USAID perception of a gap based on two measures: large numbers of project proposals rejected by the finance ministry and lack of capital flows for development. Weak performance was clear, and the output gap was quite noticeable, which created strong pressure for change (see Kettering 1981 and Hage and Finsterbusch 1987: 137-145).

Finding out where it hurts sets the stage for performance improvement in two ways. First, it determines whether there is a perceived need for change to improve performance (recall the discussion of the facilitative conditions in Chapter 3). Second, it identifies the source(s) of the performance pain, which will set the direction for the problem analysis, improvement intervention design, and implementation of the solution to follow. For example, as the Philippines National Irrigation Administration (NIA) case (Box 4.3) shows, the decision to experiment with a participatory approach to irrigation systems development was preceded by the recognition by NIA leaders that the agency was failing to create sustainable communal irrigation systems. In essence, they recognized a performance gap related to output production.

WHO CARES?

This question targets the identification of who perceives the performance problem and who is willing and/or able to do something about it. Problem identifiers and intervenors may or may not be the same person(s). If a program suffers performance failings, but no one in a position to act cares about remedying the problem(s), then the likelihood of a performance improvement intervention getting off the ground, much less succeeding, is low. Program managers, while identifying where it hurts, need to test for commitment to reducing the pain.

The answer to Who cares? takes us beyond simply identifying those who are nominally responsible for various program components, by reason of the organizational positions they occupy, to the bureaucratic politics and incentives

dimensions of program management. Responses will emerge as a function of the interests, resources, and past experiences of those participating in the program (recall the stakeholder analysis of Chapter 3). The search for answers will entail, as well, looking at possible discrepancies between official program goals and "real" ones. Such discrepancies, for example, have frequently been noted in community development efforts, where official empowerment objectives are at variance with underlying social control and political cooptation aims.

Moore (1987b) examines this dynamic in a study of urban rehabilitation in Ecuador. In Guayaquil, the municipal government sought to regulate urban land use and to create access to housing and land for the urban poor. Officially the program was participatory, based on the desires and needs of the poor. In practice the city took top-down actions "in the name of the poor." The highly charged sociopolitical setting, which pitted existing urban residents against the invading squatters, meant that the program became strongly politicized. Various groups sought to manipulate the program for their own ends, local capacity was not strengthened (because participation of the poor was not achieved), and Guayaquil continued to have problems coping with disorderly growth and political conflict (Moore 1987b: 38).

Experience has shown that the chances for successful performance improvement are increased when groups of actors from multiple levels in the program structure are concerned with addressing a performance gap (Brinkerhoff and Ingle 1989). It is not enough for program leaders to see a problem and want to do something about it if those at the operational levels see nothing that needs to be changed. Similarly, if field implementors and beneficiaries perceive a performance gap but supervisors and senior managers do not, the likelihood of change is low. The higher the hierarchical level within the program structure at which a gap is perceived, the more likely change will be successful. Working down the hierarchy is easier than working up. Solomon (1984) suggests taking a vertical "slice" through the implementing entity's hierarchy to put together a multilevel working group to pursue the task of doing something about the performance gap (cf. Korten 1982).

Further, change is more likely to succeed the more internal program staff, rather than just outsiders, see problems, whether those outsiders be beneficiaries or other stakeholders. A fairly common situation in externally funded programs and projects is one where donor agencies see some kind of a problem but developing country personnel do not. Change interventions that proceed based solely on donor concerns rarely produce sustainable improvements.

WHAT'S WRONG? WHAT'S RIGHT?

Answering these questions means analyzing the details of the performance gap and diagnosing its cause(s). The program management model presented in Chapter 2 provides a framework for this analysis by suggesting what factors

affect program performance: (a) external factors in the program environment, both proximate and distant, including policies; and (b) internal ones related to program strategy, design, structure, systems and processes, and resources. The other chapters in the book specify the relationships among these factors and what program managers need to pay attention to. Their treatment of the various factors suggests how to diagnose problems that emerge. To summarize, the model's starting point is the environment, which constrains outputs and performance, determines which strategies are appropriate, and sets limits on resources (Chapter 3). Performance difficulties can emerge from any of the following.

- *Strategy:* The program's host organization's strategy does not fit the environment or the program's design (Chapter 4). The program's leadership style is inappropriate (Chapter 7).
- *Structure:* The program's structure does not fit its environment or its strategy. The structure is not congruent with the program's systems or resource availabilities (Chapter 5).
- *Systems and processes:* The program's systems are not appropriate for its structure (Chapter 5). The systems fail to support effective management (Chapter 6). They do not fit the program's human resources (Chapter 7).
- *Resources:* The level of resources (financial, physical, human) available is inappropriate for the program's design (Chapter 4), structure (Chapter 5), and/or systems (Chapter 6). The program's people lack appropriate skills, attitudes, and/or incentives (Chapter 7).

As this summary listing shows, it is difficult to isolate one source of problems without being led to look at the others. Each one is linked to the others in relatively complex ways (recall Figure 2.2). Because of this complexity, determining causality in any sort of definitive way is very difficult. Managers should beware of assuming they know all of what is wrong based simply upon the first visible source of a performance problem. For example, in Chapter 7, we noted the tendency to suppose that performance problems derive from people weaknesses, to be solved by training, due to the fact that people and what they do (or do not do) are highly visible relative to other potential contributing factors.

Program managers should treat performance gap analysis in the same way they would go about determining a programmatic response to a development problem. This means beginning with reconnaissance and data collection as a prelude to some analysis. Performance improvement, like any other type of intentional change, needs to be based on a good understanding of the situation where intervention is being contemplated. Gaining this understanding may mean bringing in some outside assistance (see the section on getting help later in this chapter).

Tichy (1983) suggests three levels of problem diagnosis. The first is a "radar scan," which involves a quick overview of the program organization to

target "blips" or trouble spots; this is akin to the rapid reconnaissance methods for development planning (see Chambers 1981 and Honadle 1982). This first level can be used as a prelude to more detailed diagnosis later on. The second is symptom identification, which risks treating symptoms rather than root causes but enables managers to probe where problems are known to exist. The third level is in-depth analysis, involving systematic and comprehensive study, often conducted by management specialists in collaboration with program staff. Diagnosis at this level often blends research with action iteratively to attack complex performance problems on an ongoing basis.[2]

As the second question in this section's heading implies, analyzing a performance gap means more than uncovering problems and things that are wrong. The flip side of gap analysis is highlighting what works (either in the context of the manager's program or of similar programs). Focusing on what's right as part of looking at what's wrong combats the demoralization that can afflict program participants when the emphasis is only on the negative. In addition, targeting what works and directing part of the change intervention to strengthening or expanding on success helps produce the early, visible victories that encourage program staff and stakeholders to continue supporting and participating in the change (Brinkerhoff and Ingle 1989). Successful development management means not just embracing error as part of the learning process, as Korten and Uphoff (1981) urge, but also embracing success to stimulate learning and to build morale and commitment to doing better.

WHAT TO DO?

Diagnosing the performance problem(s) and discovering what is wrong, and what is right, will isolate which component(s) of the program needs to be changed and/or reinforced: strategy, structure, systems and internal processes, resources and inputs, or environmental factors. The other chapters of the book offer insights and guidance on achieving the best kinds of fits among these factors to enable high levels of performance. However, program managers need to know what to do to establish, or reestablish, the congruencies between the factors that do not match. What kinds of interventions should be used?[3]

Intervention Modes

Managers have nine categories of tactical options for what to do. These are usually employed in combination. Table 8.1 presents the options.

The first three options—decree, replacement, and reorganization—are the most frequently used by developing country governments to deal quickly and visibly (though usually not effectively) with performance problems. Sometimes they are taken to extremes. For example, in Haiti, the government issued new

ministry mandates, replaced and rotated ministers, and announced wholesale reorganizations on a regular basis. Between 1981 and 1988, the planning ministry was headed by seven different people and was drastically restructured three times. Other ministries fared no better; during that same period the health ministry had eight changes in leadership (see Brinkerhoff 1990). In the case of Haiti under the Duvalier government, the intent was more cosmetic politics than a serious effort to deal with performance failings.

However, even when undertaken seriously, issuing directives from the top, firing and replacing staff, and reorganizing have not generally proven to be effective performance improvement options when applied by themselves. The group decisionmaking and problem-solving options, particularly when combined with data collection and discussion, are associated with successful performance improvement. Because of the complex nature of organizational change,

Table 8.1 Organizational Change: Tactical OPtions for Performance Improvement

Decree: New directions are issued from top leadership and are passed down the organizational hierarchy via "one-way" communications for staff action.

Replacement: One or more persons, usually in high-level positions, are replaced with others with different views, affiliations, skills, and attitudes.

Restructuring: The program's structure is modified, entailing changes in authority and reporting relationships, field staff interactions, links with beneficiaries, and so on.

Group Decisionmaking: Group members participate in the selection and implementation of change alternatives specified by others, either higher up in the program structure or outside the program.

Data Collection and Discussion: An external change agent collects information about the program and gives feedback to staff. Staff analyze the information, diagnose problems, and develop solutions.

Group Problem Solving: A group internal to the program collects information, identifies and analyzes issues and problems, and designs and implements solutions.

T-groups: A facilitator helps a group to understand the processes of individual and group behavior to develop more effective interpersonal work relations.

Experimentation: Trial and error is used to determine which changes work best for the program's performance problems. Learning from pilot testing is incorporated into subsequent changes.

Training: Program participants acquire new skills, competencies, concepts, behaviors, and/or attitudes.

Source: Adapted from Hage and Finsterbusch (1987: 22)

either in individual organizations or program networks of organizations, the more change tactics employed the greater the effectiveness of the improvement intervention (Hage and Finsterbusch 1987: 252). Also, the greater the attention to the process of change in addition to its substance and content the more likely the intervention is to succeed. The group-oriented tactics can be used to support attention to process.

Teams work well as mechanisms for conducting improvement interventions as well as for program management itself. Performance improvement teams appear to be generally more successful when they are part of an existing program unit. Joint expatriate–developing country teams are useful for transferring new management technologies and adapting them to local contexts. Box 8.1 describes how the use of joint teams was integrated with several of the group-oriented change tactics in a management capacity-building intervention for Portugal's Program for Limestone, Fertilizer, and Forages (PROCALFER).

Box 8.1 illustrates how training as a tactic for change can be effectively linked with information collection and analysis, group problem solving, and experimentation (see the discussion of action-training in Chapter 7). Box 4.4, on irrigation in Pakistan, provides another example of action-training as an intervention mode. Effective change efforts almost always contain some kind of training component, both for capacity building and for getting participation. All organizational changes, even those that appear at first glance to be "self-contained," such as introducing microcomputers (see Box 6.5), necessitate new behaviors and new skills. Training is needed to help people learn these. Training also helps to create confidence and commitment, to motivate participants by offering opportunities to learn, and to encourage shared values among program staff, stakeholders, and beneficiaries (Paul 1982, Ch. 11). As noted in Chapter 7, action-training methodologies are well suited to fostering these outcomes.

Program managers need to keep in mind that sustained performance improvement is rarely achieved with a one-shot, quick intervention. Successful change takes a fairly long time. Hage and Finsterbusch's (1987) review of experience suggests a minimum of four to five years. This extended time frame makes it all the more imperative to treat performance improvement within the program as a discrete project and to apply the principles of effective management to the change effort: establish clear, agreed-upon objectives; develop consensus on change strategies, tactics, and plans; clarify the various actors' roles and responsibilities; make sure there are incentives to support the change activities; and gather feedback to make modifications during implementation (Brinkerhoff and Ingle 1989).

Performance improvement interventions have been found to be easier to undertake and to have higher chances of success when four conditions are present (Hage and Finsterbusch 1987, Ch. 5):

- Relative equality among organization members. Higher degrees of

Box 8.1 A Management Capacity-Building Intervention for PROCALFER in Portugal

PROCALFER was undertaken to combat problems identified in the agriculture sector: high soil acidity, inefficient farming practices, and weak government capacity in agricultural research and extension. A $64 million grant agreement between USAID and the government was signed in 1980 for a five-year program. The U.S. Department of Agriculture (USDA) provided technical assistance in agriculture. Implementation arrangements were complex, involving extensive cooperation among agriculture ministry (MOA) central, regional, and local offices, plus a credit agency, farmer cooperatives, and private sector fertilizer firms. PROCALFER was managed by a network of central and regional coordinating committees, but the committees had no authority to set policy or allocate resources. Budgeting was done through the MOA's standard procedures. PROCALFER quickly ran into serious implementation difficulties.

USAID asked USDA to examine the program's management problems, and assistance was sought from USDA's Development Program Management Center (DPMC). An initial consultancy investigated the key issues with MOA, USAID, and USDA personnel, and the consultant proposed a plan for institutional development to strengthen PROCALFER management capacity. The plan combined systems changes with training to tackle a sequence of weaknesses in collaboration with program staff.

The design consisted of the following elements:

- Formation and training of a team of local consultants to work with PROCALFER. This first step was facilitated by the availability of two people who had been trained under an earlier project. DPMC consultants worked collaboratively with the Portuguese team throughout.
- Joint reconnaissance with the team and PROCALFER of the program's management problems, conducted both through interviews and manual/document reviews, and through workshops. These workshops also served as opportunities to introduce PROCALFER staff to some new management tools, which they then used to analyze their own situation.
- Action-training workshops as the main mode of gathering information, transmitting skills, initiating new tasks (e.g., implementation plans), and building support and commitment for ID. Throughout the ID effort the team used these workshops, which had an explicit focus on producing operationally useful outputs (plans, strategies, reports, etc.). Thus, training was constantly linked to action and producing what PROCALFER managers needed.
- Design of a PROCALFER management information system built around the structured flexibility management strategy. This system set rolling implementation targets and monitored progress to determine if changes in either targets or activities were needed. Staff were trained in the use of the system via action-training workshops, which meant that as they learned they began immediately to apply the system to managing PROCALFER.
- Phased expansion of the information system from PROCALFER's central administration to the regional and local levels. Again, this was accomplished via

workshops at those levels.

• Targeted changes in other MOA systems affecting PROCALFER's effectiveness. Success with the information system opened the way to confronting the budget problem. The team obtained MOA agreement to undertake a pilot test of an activity-based budget system using microcomputers. The system was developed and tested and met with positive response. Program managers for the first time could obtain current information on expenditures and resource utilization. As with the information system, the budget system was introduced in workshop settings.

• Monitoring and adaptation of the new systems by PROCALFER staff in collaboration with the local consultants. The DPMC team worked with their counterparts to ensure that they could track the use of the new information and budget systems and that they could continue to meet the needs of the program as those needs evolved over time.

In late 1983, due to the intervention's success in improving program performance, MOA top management wanted to expand the new systems beyond just PROCALFER to the rest of the ministry's operations. However, public sector budget cuts and political uncertainty prevented large-scale replication.

Source: Author from Thompson (1983) and Fienup et al. (1984)

equality are found in collegial, decentralized structures.

- Previous experience with change. Organizations that have undertaken change efforts in the past are more receptive to future changes.
- Managers trained in other cultures. Such staff are more likely to perceive performance gaps and are better at critical analysis and problem solving.
- Professionally trained staff. Occupational groups, such as scientists or technical specialists, trained to use data and to problem-solve are more likely to perceive performance gaps and show higher levels of motivation to do something about them.

Program managers thinking about a performance improvement intervention should include a review of these factors as part of their reconnaissance and initial analysis.

Getting Help

As was pointed out in Chapter 7, program managers can look to a variety of sources for assistance with management improvement. There we noted that, if appropriate institutions exist, a good source of ongoing assistance can be man-

agement training institutes, either in the country or region. For example, the training needs assessment presented in Box 7.3 was conducted by consultants from the United States, plus staff of the Zimbabwe Institute of Public Administration and Management, the University of Zimbabwe, the Institute of Development Management in Swaziland, the Swaziland Institute of Management and Public Administration, and the Chamber of Commerce of Botswana. Organization and management units of sectoral ministries are another potential source. For example, the Senegalese government's Bureau d'Organisation et Méthodes is widely used by public sector managers for help with performance problems in that country. Local consulting firms can also be a good source of performance improvement assistance, particularly in the advanced developing countries with sufficient markets for such services. In addition, many countries have local offices of international firms, such as Price Waterhouse, McKinsey, and so on.

Multilateral and bilateral international donor agencies constitute another good source of help to program managers. Several agencies have units and/or programs specifically intended to help developing countries address management issues in both the public and private sectors. The following is a partial listing. In the United Nations family of agencies, the International Labor Organization (ILO), the UN Secretariat's Program in Public Administration and Finance, and the Management Development Program of the United Nations Development Program (UNDP) deal with these issues. USAID's Science and Technology Bureau has the Office of Rural and Institutional Development, which has supported applied research on management (of which this book is a product), and the Regional Bureaus' central technical offices and field missions also provide management assistance through a variety of project mechanisms. The World Bank incorporates management improvement into many of its sectoral and project loans. Over 90 percent of current Bank projects across all sectors contain institutional development components, up from 72 percent in 1978 (Paul 1990: 4). The Bank also has several units with management improvement responsibilities; the largest of these targets Africa (see Sullivan 1989).

Using Assistance Effectively

Once program managers have located an appropriate source of help for improving performance, they need to think about how best to use assistance. Experience provides several important lessons here.

Make sure that technical assistance providers take the program's needs as the starting point for any change intervention. Donor agencies are known for pushing their own agendas onto developing countries whether or not those agendas and concerns are shared by country decisionmakers. Managers also need to beware of private firms that may attempt to sell a particular improve-

ment package regardless of fit with needs. Assistance should be viewed by both providers and recipients as a collaborative endeavor (Ross 1988). The sooner a collaborative relationship can be set up and solidified, the more likely the technical assistance is to be sustainable and successful.

Donor agencies are much more open to collaborative approaches than in the past. USAID has made some changes in this direction. For example, USAID/Senegal's follow-on project to its Strengthening Agricultural Research Project uses a methodology in which the institution(s) contracted for project design also implement the project, subject to the establishment of an effective working relationship with the Institut Sénégalais de Recherche Agricole, the target organization. Among the multilaterals, the World Bank is also paying more attention to the importance of Bank-borrower collaboration and genuine dialogue in the development of policy and investment targets (see Heaver and Israel 1986).

Program managers need to expand their conception of technical assistance beyond the use of advisers and training. There are potential roles for technical assistance personnel that extend beyond providing expertise and services for developing countries and that explicitly focus on the capacity-building and sustainability dimensions of assistance. However, in far too many cases, donor-provided experts remain engaged in performing technical tasks rather than serving as partners or mobilizers to help indigenous staff do them (Gow 1988, Silverman 1984, Honadle et al. 1983, Lethem and Cooper 1983). The difficulty here does not lie solely with the donors or the experts. Sometimes recipients see the performer role as the legitimate one and feel they are not getting their money's worth if other roles are being fulfilled instead.

If training for program personnel is included in the change intervention, managers should make sure explicit links exist between training content and the tasks the program needs to accomplish. In addition, managers need to pay attention to the necessary conditions to make the training effective and to produce an impact on performance (see Kerrigan and Luke 1987, Moore 1987c, and Muscat 1986).

As mentioned earlier, performance improvement interventions require sustained effort over long periods of time. Rather than jumping from one assistance provider to another, program managers are better off if they can build ongoing relationships with a few sources of expertise. Effective technical assistance is achieved best when working relationships endure. Long-term collaboration builds trust, in-depth understanding of the problems to be solved and the constraints that exist, a shared experience base, mutual incentives to meet the expectations and fulfill the needs of both parties, and, ultimately, technical capacity.

One mechanism that has been proposed is institutional twinning, which partners a developing country organization with a similar but more mature organization in an advanced country to foster capacity in the "junior" organiza-

tion (Cooper 1984). An example of a successful long-term relationship is the India–United States collaboration of the 1950s and 1960s in agricultural education, research, and extension (Goldsmith 1988). In the 1980s, the Canadian International Development Agency supported twinning through its Partnership Program, which links Canadian NGOs, universities, and private sector firms with similar entities in developing countries for direct collaboration (CIDA 1987).

Another type of long-term collaborative mechanism is a network of technical cooperators that link up around particular sets of tasks in ways that allow cooperators to bring their respective strengths to bear and to improve their capacity in areas of relative weakness. Organizations, firms, and/or universities and institutes in advanced and developing countries possess different strengths and weaknesses in terms of level of expertise, relevant experience, and operational capacity. Program managers could lobby for the establishment of technical cooperation consortia that would reach to the national, provincial, and local levels. Shear (1988: 9) makes such a recommendation to USAID for the future, stating that

> since many of the private organizations providing the technical assistance to local institutions will themselves not have all the technical skill necessary, there will be a need for a series of backup contracts. These should include both for-profit and nonprofit organizations. These organizations will provide consulting services for all the levels of expertise required. Local organizations will also be an approved source for consulting services as will those from other donor states.

Managers should explore with donor officials, through their available channels, the possibilities of establishing these kinds of long-term relationships.[4]

MAKING IT BETTER?

The final piece of performance improvement is to ask whether the change intervention had an impact on performance; that is, did it make things better? This question is a logical follow-on to the sequence of perception of a performance gap, diagnosis, intervention design, and implementation. However, on more occasions than one, it goes unasked (Lippitt et al. 1986, Ch. 6). Managers, for a variety of reasons, neglect looking at the effects of their change efforts on program performance. Sometimes they become preoccupied with making sure that the intervention itself proceeds as planned. Sometimes the pressures of implementation force them to get on with the next task without pausing for reflection. In some cases, funders of interventions are loath to provide the resources needed to conduct reviews or evaluations.[5]

Nonetheless, managers need to ask the "making it better" question to

Box 8.2 Making It Better in the National Irrigation Administration in the Philippines

The transformation of the NIA in the Philippines (see Box 4.3 on intervention design) from a technocratic bureaucracy to a client-responsive strategic organization is an especially dramatic example of successful performance improvement. The reorientation effort resulted in the following outcomes:

- Improvements in physical facilities, for example, better placement of irrigation canals, better design of turnout structures, better maintenance, and fewer abandoned irrigation systems
- Strengthened local irrigation associations, for example, better water distribution, more effective maintenance management, better financial management of users' fees, and stronger local-level leadership
- Improved cost recovery, for example, increased farmer willingness to pay for irrigation systems and services and increased repayment rates of loans to associations

An evaluation team from the Institute of Philippine Culture conducted an in-depth study of the impacts on performance of the NIA improvement effort. The team used the following data categories to measure these outcomes:

Physical facilities

1. Number and type of facilities built during the intervention
2. Farmer's perceptions of facilities' adequacy
3. Area irrigated before and after the intervention
4. Rice yields before and after the intervention

Local irrigation associations

1. Organizational structure
2. Numbers of leaders and their background characteristics
3. Membership
4. System management activities (water, funds, etc.)

Cost recovery

1. Value of farmer contributions during construction
2. Farmer acceptance of completed systems
3. Loan repayment rates
4. NIA costs to implement the improvement intervention

Source: de los Reyes and Jopillo (1988), Hage and Finsterbusch (1987), and Bagadion and Korten (1985)

ensure that (a) the resources applied to performance improvement are generating a worthwhile return—after all, change efforts have costs—and (b) the content of the change is having the anticipated impact on the problem that was diagnosed. Performance measurement is a complex topic, particularly for

socioeconomic development programs where the concern is not simply for the production of goods and services, but also for their utilization and ultimate impacts on behavior and well-being. The next chapter deals with performance in more detail. Box 8.2 illustrates the outcomes of the NIA performance improvement intervention and gives some sense of what kinds of things managers can look for to assess whether the change effort "made it better." The NIA model has received a lot of positive "press" coverage, and by the late 1980s Sri Lanka, Indonesia, Thailand, Nepal, and India had developed programs based on the NIA's approach to communal irrigation. Managers should be aware that the NIA's performance intervention was relatively costly and heavily subsidized by the Ford Foundation, both financially and in terms of foundation staff energies.

GUIDELINES FOR PROGRAM PERFORMANCE IMPROVEMENT

The following guidelines are suggested for programs having performance problems. They can help program managers successfully develop performance improvement interventions.

- Identify the performance gap the program confronts. Does it relate to inadequate production of goods and services, inefficiency, ineffectiveness, poor innovation, and/or staff or client dissatisfaction?
- Identify who is concerned about the gap: top management, field managers, technical personnel, beneficiaries, local politicians, program funders? Clarify who has the commitment and resources to do something to close the gap. Assemble a multilevel task team to work on performance improvement; ensure top management support for action.
- Analyze the details of the performance gap and its cause(s). Look at the program's environment, policies, its strategy, design, structure, systems and processes, and resources. Start with a rapid reconnaissance to scan the situation quickly, and follow up critical areas identified with more in-depth assessment. Continue this assessment/reassessment throughout the improvement intervention as the means to link action and learning. Don't hunt only for what's wrong, look also for what's right. Remember that a singular focus on problems stresses the negative and can be debilitating to taking action.
- Select among the various tactical options for change: decree, staff replacement, reorganization, group decisionmaking, group problem solving, data collection and discussion, T-groups, experimentation, and training (Table 8.1). Remember that the first three tactics, used alone, are not very effective. The more options combined in an intervention, the higher the chances of success. Continue the use of teams from gap

analysis and diagnosis into design and implementation of the performance improvement effort.

- Treat performance improvement interventions as long-term projects that need to be consciously managed. Develop clear objectives and targets, get agreement on change plans and designs, clarify roles and responsibilities, pay attention to incentives for change, adapt and modify the intervention during implementation, be cost-conscious, and focus on results.
- If needed, seek external assistance from management specialists in national management institutes, universities, local consulting firms, ministry O&M units, or international donors. Insist on a truly collaborative relationship with external change agents. Recognize that asking external assistance personnel to do the work of the program cannot build independent capacity. Push assistance providers to be facilitators, motivators, and technical resources for a process whereby program people learn to perform better. Develop a long-term relationship with a few assistance providers.
- Evaluate the improvement effort in terms of its effects on program performance. Monitor costs of the effort in relation to results. Establish some results indicators; even if they are "rough and ready," they will be useful for assessing success and impact. Plus, the use of indicators sends the message to program staff that performance counts.

NOTES

1. The Hage and Finsterbusch (1987) volume in the Lynne Rienner Development Management Series is devoted entirely to the topic of this chapter, which draws heavily upon their work. Readers wishing more detail are referred there.

2. A significant amount of work was done under the Performance Management Project on approaches to combining research with action in ways that effectively facilitate improving short-term performance and at the same time build long-term capacity for continuing to make improvements. See, for example, Kettering and Sensenig (1986). These approaches continue to be refined; see Finsterbusch and Ingle (1990).

3. As with the other literatures drawn upon in this book, the organizational change literature is immense. A few of the classics are Argyris (1970), Bennis et al. (1976), and Schein (1969). For a more recent reference, see Lippitt et al. (1986). Hage and Finsterbusch (1987) distinguish among three change strategies: organizational development, organizational theory, and organizational design. All three use varying mixes of the intervention tactics reviewed here.

4. Smuckler et al. (1988: 22) advocate these kinds of relationships as appropriate mechanisms for assistance. They note that "[in the United States] we have strong training and technical assistance resources to improve management in the Third World. Increasingly these American strengths should operate as peer supports to Third World managers through networking and long-term linkages." For example, the

University of Maryland's International Development Management Center is working in Thailand with a local consulting firm and Thammasat University on designing and installing a computerized management information system for the Thai Affected Villages Program (see Box 6.3), jointly funded by USAID and the Thai government. Members of this network bring their distinctive competences to the tasks at hand, and they all learn something from one another that builds their capacity for future technical cooperation.

5. The issue of evaluation and utilization of evaluation findings has been discussed both in the development and the organizational change fields. See Kumar (1989), Legge (1984), and Patton (1982).

9

Managing for Performance: Looking Ahead to Sustainable Development

Looking ahead completes the set of tasks that make up program management as we have treated it in this book. Although looking out and looking in have been discussed first, the performance orientation embodied in looking ahead underlies these two tasks and is, in fact, an essential element in both of them. Decisions, choices, and actions emerging from looking out and looking in—program objectives, strategies, designs, key stakeholders, structures, management systems, leadership, incentives, and resources—are all a function of looking ahead. The rationale for deciding, choosing, and acting is to achieve some desired state in the future, which can be conceived of only by looking ahead toward that future. So, of the three interlinked program management tasks, looking ahead is really the "first among equals."

This chapter examines what joins a program's starting point and its intended future: performance. Program managers look ahead to performance in terms of the three dimensions discussed in Chapter 2: efficiency and effectiveness, capacity, and sustainability. Which of these dimensions managers emphasize depends upon whether they are thinking of performance as reaching the destination or undertaking the journey. We see it as both; you cannot have one without the other. Previous chapters have looked ahead at the destination and then in and out to decide what to do regarding strategy, design, structure, incentives, and so on to enhance the prospects of performance. However, except for the treatment of performance improvement in Chapter 8, we have not said much about performance as the journey. That is the orientation of this chapter—what lies along the way as a program moves toward its destination. The chapter offers some guidelines on performance and closes with some concluding thoughts on all three of the program management tasks.

EFFICIENCY AND EFFECTIVENESS

Most immediately, program performance concerns the way programs transform their inputs into outputs, products, results, and impacts. Efficiency targets resource consumption and refers to the cost of the input-to-output transformation process per unit of output. Effectiveness confronts utilization and appropriateness, assessing whether the outputs produced are used as intended and contribute to solving the problem that justifies resource consumption and production. Efficiency concerns lead program managers to ask, Are we doing things right? Effectiveness prompts the question, Are we doing the right things? While these two performance constructs are relatively straightforward conceptually, defining and measuring them in practice is much less so. Measurement problems are especially acute for development programs in the service sectors, where outputs cannot easily be specified as observable, measurable units.

Apart from measurement issues, managers implementing highly innovative programs (see Chapter 4) face a choice of when to go for efficiency and when to pursue effectiveness. Korten (1980), discussing community development efforts, advocates learning to be effective first, arguing that without effectiveness efficiency is irrelevant. Evidence from sustainability project and program assessments, however, suggests that managers must not leave efficiency considerations unattended while learning to be effective, since effectiveness over the long term depends upon producing benefits using the level of resources available on an ongoing basis, not the often artificially high level provided during the initial investment period (see Brinkerhoff and Goldsmith 1990).

This balancing of efficiency and effectiveness considerations highlights the importance of the time dimension. Performance will not look or be judged the same throughout the life of the program. Managers may be faced with some trade-offs or even conflicts on occasion. For example, Thailand's Northeast Regional Office of Agriculture and Cooperatives (NEROAC) implemented a USAID-supported project in rainfed agriculture as part of its regional development program. In the early years of implementation, staff pushed hard for immediate results, and activities in the pilot areas looked successful to participating farmers and NEROAC staff working on the project. However, NEROAC staff in other units were alienated by the rainfed project's performance successes and resented the extra attention and resources it enjoyed. NEROAC top management took steps to integrate the project more fully into the rest of the center's regional program, thereby sacrificing some immediate efficiency gains in favor of more effective performance in the long term (Ingle, Schmidt, and Pisone 1990).

Who Wants to Know?

Adding to the definition and measurement problems for program managers is the fact that not all the actors involved with the program have the same answer

to the two questions. It can be critical to identify the interests and concerns of those who are asking about efficiency and effectiveness. For example, the interests of program funders translate most immediately into concerns about following proper accounting procedures, leaving clear audit trails, and conforming to official financial SOPs. Program beneficiaries' interests, on the other hand, are more closely related to outputs and results, which lead to a very different perspective on efficiency and effectiveness from financial accountability.[1] Because program structures cut across multiple organizations, there are certain to be tensions among the various participants' views on efficiency and effectiveness (see Kimberly et al. 1983). As the Thailand NEROAC example illustrates, these tensions can pose serious problems for managers.

Even the classic, and supposedly objective, efficiency and efffectiveness criteria of the private sector—profit and survival in the market—reflect the interests of certain groups more than others. Profit makes paramount the interests of owners. Market tests favor those with purchasing power. Those without resources have no "voice" in the marketplace (Hirschman 1969).

Program managers, therefore, need to remain aware of the differences in perspective on efficiency and effectiveness that exist among their programs' constituencies, both internal and external. Because of the complexity of the performance concept, and its political and value dimensions, it is important to incorporate several perspectives into a program's specification of efficiency and effectiveness. This sensitivity to various stakeholders' views of performance is key to sustainability (see later section). When one dominant group claims to have the "right" answers about performance, experience shows that if that group's view is narrow and prevails for a long time, actual performance declines (see Hage and Finsterbusch 1987: 18-19). At a minimum, managers should make sure to listen to beneficiary views on program performance (Korten 1984, Finsterbusch and Van Wicklin 1987). "Keep close to the customer" is valid counsel in both the public and private sectors. Stakeholder analysis (Chapter 3) can be used to learn about the various perspectives on performance different interest groups hold.

Efficiency

The word "efficiency" conjures up images of clearcut comparisons of costs with the value of outputs, profit (or benefit) maximization and cost minimization (or recovery), "lean and mean" operations, and "bottom line" accountability. These images permeate the current operating environment of public sector managers in the developed and developing countries alike, reflecting the shortage of resources relative to needs and pressures to demonstrate "value for money." Hage and Finsterbusch (1987: 232-233) found that an interest in efficiency and productivity is a value that transcends cultures. They note that "organizations in many societies are limited in the degree to which they can become efficient, but they generally want to become more efficient within these limits."

Program managers cannot ignore these pressures; indeed, responsible management is cost-conscious. Note that cost consciousness does not necessarily equal cost containment. For example, an investment in staff training may increase efficiency in the future, but this may not become apparent in the short term (Bowman et al. 1989). Viewing costs solely from a containment perspective often leads to management decisions that have a negative impact on future capacity to perform. Looking at costs is another area where the time dimension enters into performance.

However, the outputs of development programs are only partially definable in monetary terms and thus cannot be directly compared to monetized inputs. This makes the definition of a "bottom line" difficult. As Cutt (1982: 314) says:

> It is certainly possible to relate an output measure in physical or index terms to dollar costs, and to compare that consequence with alternatives, but such a measure of "value for money" is, by definition, relative rather than absolute in nature, and is at best a very limited surrogate for the absolute bottom line.

The push for privatization of public services in both developed and developing countries reflects, in part, an effort to make efficiency measures less relative and more absolute (see Hanke 1987, Roth 1987, and Donahue 1989).

Effectiveness

Getting at effectiveness means in essence examining the links in the cause-and-effect chain that stretches from the status quo to the benefits, changes, and impacts the program's design intends. As discussed in Chapter 4, program designs emerge from an analysis of development problems and an iterative elaboration of solutions (recall the concept of structured flexibility). Looking ahead to effectiveness entails setting up a hierarchy of questions and measures that begins with immediate links and extends upward to secondary or tertiary links.[2] For example, one aspect of the effectiveness of a health care financing program could be examined by asking whether privatization of health care provision has reduced costs to beneficiaries, thereby increasing use of health services. This question targets the immediate links between service provision, utilization, and consumer satisfaction (see Jimenez 1987, World Bank 1987a, and Smith n.d.). But health program managers are also interested in the effects of their programs on health status; these impact questions relate to higher-order effectiveness beyond simply utilization of outputs (see WHO 1988). A yet higher order of impact concerns the effects of improved health status on the quality of the work force. Some program stakeholders may view effectiveness in these terms.

The attribution of impact becomes increasingly difficult at these higher levels, where complexity and multiple causation characterize the cause-effect

links. In the agriculture sector, Horton (1986), analyzing the impacts of agricultural research and development programs, notes the difficulties in attributing ultimate effects on farm production levels to the various interventions, both international and national, designed to develop and apply new technologies. These effectiveness questions may not seem to relate directly to the day-to-day implementation concerns of program managers. However, obtaining answers on a periodic basis contributes to the information necessary for satisfying stakeholders and making the strategic adjustments to ensure ongoing success. Being able to demonstrate program impact is important to generating ongoing support for the program.

Table 9.1 illustrates the range of effectiveness dimensions that apply to one of USAID's major programs, Food for Peace.[3] This example shows the wide variation in concerns about program impacts, all the way from macroeconomic balance-of-payments effects to microlevel influences on day-to-day administration.

Table 9.1 Performance Issues for USAID's Food for Peace Program

1. Balance of Payments Support: To what extent is balance of payments support a primary program purpose? Would food import levels have changed without the program? What proportion of total imports and total food availability is provided by program food aid? What proportion of the total balance of payments deficit is financed with program food aid?

2. Government Spending: What role does program food aid play in maintaining or increasing a.) total investment and development expenditures, and/or b.) expenditures in the agriculture sector. Does food aid provide a.) an alternative revenue source with reduced negative effects on macro-economic or sectoral performance, b.) funding for other projects with net positive or negative benefits?

3. Nutrition: What is the contribution of program food aid to nutrition at the national level and with respect to particular disadvantaged groups?

4. Policy and Market Impacts: What impact does program food aid have on domestic prices, production levels, and demand or taste preferences for local products? How has food aid been used to promote policy changes in the agriculture sector, e.g., market liberalization and reduction of subsidies? What progress has been made on policy change and what role does food aid play in furthering progress?

5. Project Impacts: What impact do projects funded by food aid local currency proceeds have on development? What role did food aid have in financing these projects? How would the projects have been affected in the absence of food aid?

6. Management Impacts: Has program food aid imposed a significant management burden on the recipient government or the USAID Mission? How have the management requirements of the program influenced the effectiveness of food aid or other programs?

Source: From Bremer-Fox and Bailey (1989: 119)

Measurement Issues

Efficiency and effectiveness measures are the equivalent of signposts on the performance journey's path. The feasibility of developing clear and widely acceptable measures varies, depending upon the nature of a program's activities, the availability of relevant data (and the state of the art in measurement), and the complexity of, plus the time period between, action and effects.[4] Another factor influencing this feasibility is the multiorganizational nature of program structures. Measures acceptable in one implementing organization may not find favor in others.

Israel (1987, Ch. 5) introduces the concept of specificity to characterize how the nature of the program's activities affects performance. He defines specificity in terms of the degree to which it is possible to specify clearly: an activity's objectives, the methods of achieving them, and measures and monitoring of achievement. He postulates that "the higher the degree of specificity, the more intense, immediate, identifiable, and focused will be the effects of a good or a bad performance. Conversely, the lower the degree of specificity, the weaker, more delayed, less identifiable, and more diffuse will be those effects" (pp. 48-49).

One of the problems, then, facing program managers regarding performance measurement (and thus the potential to use the data to provide incentives to perform) is that many public sector, and joint public-private, development activities are characterized by low specificity. They are "low technology" and targeted on behavioral change, and their impacts are not immediately apparent. This is particularly true of rural development and poverty-oriented programs. Examples are primary education, health and nutrition, agricultural extension, small enterprise promotion, and rural financial markets.

Another measurement issue has to do with the "rules of evidence" (see Bryant et al. 1983). That is, what kinds of measures will program stakeholders accept and believe as proof of performance? Important stakeholders, such as national funding agencies and international donors, favor quantitative measures that will support "bottom line" determination. Low-specificity programs are at a disadvantage because valid, quantifiable performance data are more difficult to obtain, and the "softer," more qualitative measures that may make sense methodologically fail the "rules of evidence" standards of key stakeholders.

Some organizations have devised creative approaches to combining quantitative and qualititative measures. Box 9.1 provides an example of cost-effectiveness measurement developed by a U.S. private voluntary organization (PVO) for use in the small enterprise sector. This kind of methodology is potentially adaptable to other development sectors as well.[5]

Management Responses to Performance Measurement Problems

From a managerial perspective, a critical issue is that low specificity poses constraints for developing performance measures useful for setting staff incentives. Without incentives, achieving performance is impossible. Chapter 7 noted that the human resource context for many development programs is not conducive to a performance orientation, which makes it all the more difficult for individual program managers to offer incentives for performance. Investing heavily in trying to develop measures in these circumstances frequently leads to oversimplification and false quantification. The impacts on staff motivation of using such measures have been shown to be highly negative, resulting in "empty" behaviors where people "go through the motions" with little attention to actually accomplishing anything.[6] Eventually, an ethos of cynicism develops, which can be difficult to combat.

In this situation, program managers are better off seeking surrogates for specificity rather than pursuing ultimately futile, counterproductive efforts to devise measures (see Israel 1987: 150-165). Several of the earlier chapters contain suggestions for such surrogates. In Chapter 4 we discussed allocating portions of programs to private sector entities, where the forces of competition and the market impose a performance discipline in and of themselves. In Chapter 5 we talked about the use of program structures that emphasize teamwork, collegiality, decentralized decisionmaking, and flexibility. These can help to stimulate performance in low-specificity situations, particularly if the program also contains some high-specificity activities as well, where their relatively more clearcut performance measures can exert some "peer" pressure on the low-specificity ones.

Within collegial program structures, a good way to deal with the challenge of performance measurement in low-specificity programs is to bring program staff and other stakeholders together in a workshop to develop a set of efficiency and/or effectiveness measures that all can agree upon and understand. CARDI conducted such a workshop (see Box 3.2) to look at the impact of its agricultural research programs on the institute's target clientele (Foster and Ingle 1987, Foster et al. 1990).

The management systems discussed in Chapter 6 can also help compensate for low specificity. Examples include reporting mechanisms that emphasize links between activities and outcomes; guidance systems that do not overly penalize staff for failure to reach specific targets but incorporate error recognition, correction, and flexibility; and financial systems that seek to relate resource use to outputs. All of these send the message that performance is important.

Box 9.1 TechnoServe's Cost-Effectiveness Methodology

TechnoServe is a PVO that helps low-income people in Africa and Latin America to start, own, and operate agribusiness enterprises as a means to generate employment, income, and increased food production. Its enterprise development program is implemented collaboratively through country projects with local women's groups, cooperatives, local financial institutions, government ministries, religious organizations, and indigenous and international PVOs. To assist implementors and its own staff to do better at assessing performance, TechnoServe developed a cost-effectiveness methodology that combines quantitative and qualitative information on benefits to target groups.

The financial component of the methodology focuses on (1) increased community-level (farmers, suppliers, owners) incomes; (2) increased enterprise profits (before dividend payments, mandated reserves, reinvestment, or taxes); and (3) increased aggregate salaries, wages, and benefits to enterprise employees or directly contracted services. To obtain a net incremental return to beneficiaries, ten-year postinvestment projections in each category are made for two scenarios: with and without TechnoServe assistance (net return = with minus without). These are adjusted for shadow pricing, foreign exchange components, and taxes and then converted to net present value. The cost-effectiveness (C-E) ratio equals the present value of net benefits divided by the present value of the costs of TechnoServe's inputs.

On the qualitative side, the methodology consists of a list of nonquantifiable benefits (NQB) divided into three categories: social, economic, and policy benefits. Examples of social benefits include "increased access to public services" and "greater participation for marginalized groups." Economic benefits include "increased employment" and "improved backward/forward linkages." Examples of policy benefits are "improved national policy environment for small enterprise" or "commodity policy changes." Evaluations divide rated weights equally among social, economic, and policy benefits; elements within categories are weighted according to relative importance. Each project is rated independently by three people, and the ratings are averaged.

Entered onto summary sheets, this financial and qualitative benefits information is used by project and TechnoServe decisionmakers for various purposes. For example, C-E sheets completed at design and during implementation are compared to improve staff ability to judge financial returns. Comparisons of NQB sheets with C-E ratios help identify whether, for example, financial gains are being achieved at the expense of social or policy benefits. The use of these data is influenced by decisionmakers' interpretations and value orientations. A project with low C-E scores but high NQB ratings, for example, may be deemed worth continuing despite weak financial performance.

Source: Bowman et al. (1989)

Recruitment, training, and leadership style (Chapter 7) can also reduce to some extent the need for detailed performance measures. Recruiting staff whose inherent traits motivate them to perform without outside supervision is one commonly used approach, especially where professional specialists are

involved—for example, doctors, nurses, scientists, and engineers. Another approach is to increase professionalization or emphasize socialization to performance values through training of existing staff. Finally, leadership that stresses the importance of performance, provides a vision that can inspire staff, and differentiates among rewards and incentives (especially nonfinancial, given the constraints of public employment systems) can serve as a surrogate for low specificity as well.

BUILDING CAPACITY

Keeping performance going involves not simply efficient and effective production today, but building up and maintaining the capacity to produce tomorrow and on into the future. Two capacities are critical: the ability to do and the ability to learn and adapt. As Chapters 3 and 4 pointed out, the more uncertain and/or hostile the environment and the more innovative and demanding the activities, the more a program needs the ability to learn and adapt. The difficulty is that capacity becomes evident only when it is used to perform, whereas program managers need to build capacity now to perform in the future (see Chapter 2).

Much of the applied research in development management focuses on capacity building and has accumulated a significant base of knowledge useful for managers.[7] A central lesson is that, given the integral relationship between performance and capacity, the most effective way to build capacity is by performing. This is the essence of action-training (see Chapter 7) and is reflected, for example, in the performance improvement intervention in Portugal presented in Box 8.1. The guidance provided in the earlier chapters uses that knowledge base, and the recommendations about the various aspects of program management incorporate looking ahead to capacity building. Chapter 8 examines the creation of capacity most directly, discussing the use of specially designed interventions to deal with performance problems. Program managers can often turn to international donors for assistance with capacity building.

For example, as we said in Chapter 7, the essence of program activities is people doing things. Thus, a critical element of program capacity is ongoing access to, and maintenance of, human resources. Effective programs possess this capacity, so managers will want to apply some indicators (however rough) to help them pay attention to this key capacity. Bryant et al. (1983: 57) suggest the following: (a) the implementing organization(s) can recruit and retain quality staff, (b) there are effective incentives for job performance, (c) staff have opportunities for skill enhancement, (d) lower-level staff are free to express dissenting or critical views to higher-ups, and (e) promotion and pay increases are explicitly linked to production and service goals.

SUSTAINABILITY

The third dimension of performance combines efficiency and effectiveness with capacity to address continuation of benefit flows over time and responsiveness to changes in needs and desires of relevant stakeholders (beneficiaries and others). In Chapter 2 we defined sustainability as a program's ability to produce outputs and benefits that are valued highly enough by groups that command resources (directly or indirectly) to ensure an ongoing supply of inputs to enable the program to continue production. Sustainable programs are those that are able to continue the journey toward the performance destination. As with the other dimensions of performance, the discussion and guidance in earlier chapters address what managers need to do to identify, design, structure, and manage programs to increase the prospects for sustainability.

In those chapters we saw, for example, that sustainable programs pursue objectives whose level of innovation fits the degree of uncertainty and hostility present in the environment. Sustainable programs have structures that permit flexibility and modification across implementing organizations. They have information systems that gather input on stakeholder reactions to program outputs and feed it to decisionmakers for strategic planning. Program managers increase sustainability by exerting influence on participants, providing appropriate incentives to staff, and listening to beneficiaries.

Managing for sustainability, however, means more than these and the other choices and actions recommended in the previous chapters. To achieve sustainability, managers need to think of their choices and actions in relation to what their likely impact will be on their programs' output flows and benefits *after,* not just during, the investment period. Because programs (and projects) link a set of resources to a set of objectives within a time frame (a long one in the case of programs), staff and other stakeholders often treat performance as something that happens (or doesn't) within that time frame. Managers need to incorporate the postprogram, return-on-investment period into their field of vision for looking ahead. The continuation of valued benefits, of the organizational arrangements to deliver them, and of the resources necessary for production should be a consciously selected set of additional factors to be incorporated into strategic thinking, environmental scanning, and effort as part of the program management task of looking ahead (see Brinkerhoff and Goldsmith 1990).

Sustainability considerations are different from those dealing with performance during the program's investment period, which means that what is effective (and the requisite capacity to produce it) within that time frame will differ from effectiveness and capacity for the return-on-investment phase where the long-term impacts on development occur. Thus, in looking ahead, program managers need to develop "double vision": one focus for program performance, and one for development sustainability.

GUIDELINES FOR MANAGING FOR PERFORMANCE AND SUSTAINABILITY

The following guidelines encapsulate the lessons of this final chapter on looking ahead:

- Think about program performance in terms of a hierarchical chain stretching from activities to outputs to utilization to impact. Although the more immediate links in the chain will be the main day-to-day focus of looking ahead, periodically direct program participants' vision to the higher-level links that are the rationale for doing the program. Performance is both a journey and a destination.
- Balance the pursuit of efficiency and effectiveness within the program. Maintain cost consciousness, but recognize the effects of different time frames on assessments of efficiency and effectiveness. Don't become trapped into looking ahead only to the short run, due to implementation pressures.
- Assess who is interested in the program's performance and why. Remain open to varying perspectives, particularly those from outside the program's implementing entities. Programs with narrow, internally defined definitions of performance are not successful in the long run. Marketing and client/consumer satisfaction are integral to performance in both the public and private sectors.
- Even if many of the program's activities are low on specificity, think creatively as a team about developing some performance measures, not necessarily quantitative ones. The exercise itself will help sensitize program participants to the importance of performance.
- Go for multiple measures; don't settle for just one or a few. Development program activities and outcomes are too complex to be captured in a few simple indicators. A range of measures helps to deal with the "rules of evidence" problem by offering stakeholders a "menu" of choices to meet their particular tests of performance.
- Remember the link between measures and program staff behaviors. People will tend to do what they are measured on and rewarded for. The danger is that their behaviors will not actually lead to the desired performance. Too much measurement is a disincentive to perform.
- Besides specific performance measures, use managerial surrogates that offer incentives to perform. Examples include delegation of activities to the private sector to take advantage of the incentives competition can provide; flexible, collegial structures that give people the latitude to do what needs to be done; systems that relate resource use to outcomes, not just activities; and teamwork and leadership that build competence and com-

mitment to performance.

- Use these managerial responses to build capacity for tomorrow as well as to stimulate performance today. Capacity and performance are integral to each other. The best way to build capacity is through actual performance, and the best way to achieve performance is by building capacity.
- Treat sustainability as a separate dimension of program performance, one that extends managers' fields of vision to the program's return-on-investment period where ongoing development impact takes place. Develop "double vision" that looks at managerial action in terms of its effects on performance in the near term and on sustainability in the long run. Be attuned to the potential for trade-offs and conflicts between the two perspectives.

CONCLUSIONS

This book has examined development program management from the perspective of developing country managers faced with the responsibility of achieving sustained socioeconomic betterment. Development program managers can include government officials and civil servants, private sector entrepreneurs and businesspeople, research scientists and technical specialists, social workers, educators, and voluntary agency or local community members. Thus, our view of development management is not restricted to public sector management. The chapter discussions reflect the fact that in many developing countries, public managers play a lead role in shaping and implementing development investments, albeit with dispersed authority, and that the role of the public sector itself is changing from doing to facilitating and regulating.

The organizing framework for the book has been a simple model of program management tasks of three types: looking out, looking in, and looking ahead. Although the tasks have been separated for purposes of presentation, managers undertake them continuously and often simultaneously. The outward-looking tasks deal with program environments—such things as strategic planning, objective setting, stakeholder relations, demand generation, and so on. The inward-looking tasks concern what goes on within program boundaries, which in most cases cut across individual organizations. These include designing program actions, establishing structures and systems, managing people, and troubleshooting performance problems. Looking-ahead tasks entail guiding the program toward performance: efficiency, effectiveness, capacity building, and sustainability. Program managers rely heavily on influence to accomplish all three types of tasks.

Although the model is simple, program management is not. As stated at the outset, social technologies always involve irreducible elements of uncer-

tainty and "loose" cause-and-effect links. The guidance provided in the book has sought to narrow down the uncertainty and tighten the links by assimilating the experience and learning of large numbers of analysts and practitioners in various management circumstances in both developing and developed countries. At the end of the day, however, it is up to individual program managers, facing their particular situations, to cull what seems useful and appropriate from the lessons summarized here (and elsewhere) and apply them. In that selection and application process lies the creative artisanship side of management. The author hopes that this book makes a contribution to the practice of that multifaceted craft.

NOTES

1. Looking at stakeholders and interest groups is a well-recognized part of thinking about efficiency and effectiveness. Performance is not simply a technical matter. See Kanter and Brinkerhoff (1981), Cutt (1982), Sandefur (1983), and Johnson and Lewin (1984).

2. For help identifying these links, and other operational aspects of project and program effectiveness measurement, see White (1986) and other of the reports in USAID's Program Design and Evaluation Methodology series. See also Kilby and D'Zmura (1985), Norton and Beneliel (1987), and Kumar (1989).

3. U.S. food aid consists of agricultural commodities provided to developing countries under Public Law 480. The commodities are sold to the recipient country, which purchases them via a line of credit and then resells them on the local market. The revenues generated are used to support development activities. Program food aid (as distinct from project food aid, disaster relief, and nutritional supplements distributed by PVOs) is a significant component of U.S. foreign assistance, amounting to $1.89 billion in 1988 (Bremer-Fox and Bailey 1989).

4. The development evaluation field has wrestled with these issues for years at levels ranging from quasi-philosophic debates about the possibilities for "value-free" assessment and measurement, to nuts-and-bolts considerations of indicators and data collection techniques. See Patton (1982) and the USAID reports cited in Note 2.

5. Other examples of creative approaches to performance measurement, monitoring, and evaluation can be found in the case studies in Owen and Jones (1985).

6. The research on performance appraisal in organizations provides a wealth of information on the difficulties and pitfalls of devising quantitative measurement-based appraisal systems. Even in organizations whose activities exhibit relatively high degrees of specificity, performance measurement systems that effectively motivate staff are beset by problems. See, for example, Brinkerhoff and Kanter (1980), Lipsky (1980), or Sashkin (1981). The difficulties involved, however, do not mean that managers should give up on trying to develop measures. A significant amount of creative work in the evaluation field has been done on qualitative data collection and analysis; see, for example, Chambers (1985), Miles and Huberman (1984), Patton (1982), or Santo Pietro (1983).

7. Brinkerhoff (1986a) provides an overview of the evolution of thought about institutional capacity building from the early concentration on what institutions have (administrative stock), to what they do, to what they achieve. The Performance Management Project directly targeted the capacity aspects of performance.

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About the Book and the Author

As developing countries and donor agencies have become increasingly concerned with the sustainability of development efforts, their attention has moved away from a strictly project focus toward long-term programs that are integrated into national organizations and serve ongoing national objectives. It is recognized, as well, that the task of managing development *programs*, opposed to projects, differs in significant ways. Derick Brinkerhoff examines that task from the perspective of the developing country program manager.

Brinkerhoff bases his discussion on a simple model that focuses the manager's perspective in three directions—out, at beneficiary needs and the surrounding context, in, at the program and the implementing organizations, and ahead, at performance and sustainability. He provides a coherent discussion of development program management, offers guidelines that encapsulate current thinking about the best ways to improve and sustain program performance, and presents examples of the use of tools and concepts in specific cases.

Derick W. Brinkerhoff is associate director for research at the University of Maryland's International Development Management Center.