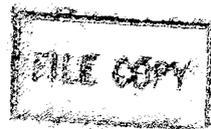


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Monitoring and Evaluating Development Projects

The South Asian Experience

Viqar Ahmed
Michael Bamberger

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EDI SEMINAR SERIES

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Development Projects
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CONTENTS

Foreword *vii*

PART 1: OVERVIEW

1. Monitoring and Evaluation Systems in South Asia 3
 - The Lahore Seminar on the Monitoring and Evaluation of Development Projects 3
 - The Current Status of M&E Systems in South Asia 4
 - Management Issues in M&E in Asia 9
 - Methodological Issues in Project Evaluation 13
 - The Organization of M&E Training in South Asia 18

PART 2: THE ORGANIZATION OF MONITORING AND EVALUATION IN THE COUNTRIES OF SOUTH ASIA AND IN CHINA

2. Bangladesh 23
 - Planning and Implementation 23
 - Evolution of the M&E System 24
 - Methodology of M&E 25
 - Review of the M&E System 25
 - Illustration of M&E at the Sectoral Level: The Bangladesh Water Development Board 27
 - Training 27
 - Conclusions 28
3. India 29
 - Planning and Implementation 29
 - Evolution of the M&E System 30
 - Methodology of M&E 31
 - Review of the M&E System 32
 - Illustration of M&E at the Sectoral Level: The Training and Visit System of Agricultural Extension 33
 - Training 34
 - Conclusions 35

4. Nepal 36
 - Planning and Implementation 36
 - Evolution of the M&E System 36
 - Methodology of M&E 38
 - Review of the M&E System 40
 - Illustration of Monitoring at the Sectoral Level: Agriculture 40
 - Training 41
 - Conclusions 41

5. Pakistan 43
 - Planning and Implementation 43
 - Evolution of the M&E System 43
 - Methodology of M&E 45
 - Review of the M&E System 46
 - Illustration of M&E at the Sectoral Level: The Water and Power Development Authority 47
 - Training 48
 - Conclusions 48

6. Sri Lanka 51
 - Planning and Implementation 51
 - Evolution of the M&E System 51
 - Methodology of M&E 52
 - Review of the M&E System 53
 - Illustration of Monitoring at the Sectoral Level: Accelerated Mahaweli Irrigation Program 54
 - Training 55
 - Conclusions 55

7. Burma 57
 - Planning and Implementation 57
 - The M&E System 57
 - Methodology of M&E 57
 - Review of the M&E System 58
 - Conclusions 58

8. China 59
 - Planning and Implementation 59
 - The M&E System 60
 - Methodology of M&E 60
 - Review of the M&E System 60
 - Conclusions 61

PART 3: RECOMMENDATIONS AND NEW DIRECTIONS

- 9. Recommendations 65
 - The M&E System at the National and Sectoral Levels 65
 - Management Issues in M&E 69
 - Methodological Issues in M&E 71
 - The Organization of M&E Training 75

- 10. New Directions for Monitoring and Evaluation in South Asia 77
 - Performance Evaluation 77
 - M&E in Decentralized Development 78
 - Strengthening Ex Post Evaluation and Project Auditing 78
 - Monitoring Project Sustainability and Evaluating Project Impacts 78
 - Participatory Evaluation 78
 - Computerization of M&E 79
 - Improving the Effectiveness of M&E as Management and Decisionmaking Tools 79

Editorial Note 81

Annexes

- A. Participants in the Regional Seminar on Monitoring and Evaluation of Development Projects 83
- B. Seminar Program 85

References 88

Tables

- 1.1 Organization and Functions of Central M&E Agencies in South Asia 6
- 1.2 Some Organizations Responsible for Monitoring and Evaluation Training in South Asia 19
- 2.1 The Planning Process in Bangladesh 23
- 2.2 The Reporting Format Used by IMED in Bangladesh 26
- 3.1 Funding, Execution, and Monitoring and Evaluation of Public Investment Programs in India 29
- 4.1 Procedures for Plan Preparation, Project Design and Implementation in Nepal 37
- 4.2 Responsibilities and Procedures for Project M&E in Nepal 39
- 5.1 Organization of Monitoring and Evaluation in Pakistan 46
- 6.1 Organization of Monitoring and Evaluation in Sri Lanka 53

FOREWORD

This book describes the organizational arrangements for the monitoring and evaluation (M&E) of development projects in South Asia. It also reports on the opinions of M&E practitioners, experts, development planners, and project managers on the strengths and weaknesses of these arrangements and on the management systems and research methodologies used for M&E in the region.

The information is derived from a South Asian seminar on "M&E of Development Projects" organized by the Economic Development Institute (EDI) of the World Bank in cooperation with the Pakistan Administrative Staff College (PASCOL). The seminar, which was held in Lahore April 5-16, 1987, was attended by directors of national M&E agencies; representatives of ministries of planning and finance, and line ministries in the areas of agriculture and water resource management; and directors of national training institutes from Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Observers were also invited from Burma and China. All participants were asked to prepare papers on the organization of M&E in their countries. Also, a review paper on approaches to M&E in the countries of South Asia was commissioned.

The purpose of the seminar was to describe and assess the strengths and weaknesses of current approaches to M&E in order to develop training material for future courses and seminars to be organized by EDI and by national training institutions in Asia. This report, prepared by the PASCOL and EDI seminar co-directors, describes the current status of M&E in each country and attempts to synthesize the seminar discussions with respect to the strengths and weaknesses of current systems and methodologies. Recommendations are included with respect to organizational arrangements for M&E at the national, sectoral, and project levels; management issues; methodological issues; and the organization of M&E training programs. Chapter 10 identifies some new directions in M&E which are likely to emerge during the next years.

Chapters describing the M&E arrangements in each country are based on fairly extensive documentation (see Editorial Note at the end of the text), and every effort has been made to check the accuracy of the information, but it should be emphasized that this is a report on a seminar—not a research project—and that covering all M&E activities in each country comprehensively has not been possible. Much of the material has been taken from the papers prepared by seminar participants (listed in the Editorial Note), though all factual statements and opinions are those of the authors and should not be attributed to the seminar participants (except in the case of direct citations). This report was prepared in December 1987 and refers to the organization of M&E in each country at that time. Since this is a seminar report, no attempt has been made to update the information to account for changes since then.

We would like to thank Adil Khan, whose review paper on approaches to M&E in South Asia was one of the main reference sources used in this report. Dr. Khan's paper is being prepared for publication by EDI and will be an invaluable source of more detailed descriptions of the M&E arrangements in each country.

In July 1988 a similar seminar was held in Kuala Lumpur for the countries of South East Asia (Thailand, Indonesia, Malaysia, and the Philippines). The general conclusions with respect to the strengths and weaknesses of national M&E systems were similar to those in this report. While the Southeast Asian participants felt that all countries had reasonably adequate systems for monitoring project implementation, it was unanimously agreed that

much greater attention needs to be paid to assessing project sustainability and evaluating project impacts. A third Asian seminar focusing on sustainability and cost-effective methods for evaluating project impacts will take place in 1989.

The authors would like to thank Dennis Casley, Ronald Ng, and Christian Polti for their helpful comments and suggestions on an earlier draft; and to express their appreciation to Rose Malcolm and Seda Pahlavooni for preparing various drafts of this document.

PART 1

OVERVIEW

1

MONITORING AND EVALUATION SYSTEMS IN SOUTH ASIA

The Lahore Seminar on the Monitoring and Evaluation of Development Projects

The rapid expansion of international development assistance in the 1970s created a demand on the part of both donors and government agencies for systems of control and accountability. During the past five to ten years most South Asian countries have developed new, or strengthened existing, systems for centralized monitoring and evaluation (M&E) of development projects. The systems are intended to provide rapid feedback to policymakers, planners and managers on the performance and potential problems of development projects. Certain kinds of information are collected directly by the central agencies while others are obtained through coordination with M&E cells in line ministries, public enterprises and in some cases regional and local level agencies.

Not surprisingly, these systems have had difficulties in living up to the ambitious demands placed on them. With thousands of projects to be monitored, there have been frequent criticisms of the efficiency and effectiveness of the current methods of organizing, managing, designing and using M&E data. Some of the commonly expressed concerns are that the information arrives too late, does not answer the right questions or is too costly to collect. Other concerns are that the M&E systems only focus on quantitative and financial aspects of the projects and that most of the studies only cover the period of physical implementation.

Given the increasing importance attached to M&E and the concerns that the systems are not operating properly, the Economic Development Institute of the World Bank (EDI) and the Pakistan Administrative Staff College (PASCOL) organized a regional seminar for South Asia (with observers from Burma and China) to help understand the functions of M&E at the national and project levels, the strengths and weaknesses of current approaches, and to define future training needs at the national or international levels. The objectives of the seminar were the following:

- To facilitate an interchange of ideas between project managers, policymakers and planners—who are the intended users of the M&E outputs—and the M&E specialists.
- To facilitate an exchange of views and experiences between M&E specialists in different countries and sectors.
- To examine the strengths and weaknesses of M&E systems in participating countries so as to better understand the contribution of these systems in different kinds of projects and at different stages of the project cycle.
- To examine the strengths and weaknesses of current approaches to M&E and to assess the impacts these approaches have on the planning and implementation of development policies and programs.
- To help EDI and other training institutions develop M&E materials for their regular training programs.

The seminar was attended by four-person teams from Bangladesh, India, Pakistan, Nepal, and Sri Lanka, and by observers from Burma and the People's Republic of China. The teams from the South Asian countries included a representative from the ministry of planning and/or finance; a director of the national M&E agency; an official from one of the line ministries responsible for agriculture, irrigation, or rural development; and a

representative of one of the national training institutions. The names and titles of participants and resource persons are given in Annex A.

The seminar, which lasted ten days, focused on four topics (the program is given in Annex B):

- Assessment of current M&E systems at the national and sectoral levels in South Asia.
- Management issues in M&E at the national and project levels.
- Methodological issues in M&E.
- Assessment of current training programs and training needs in the areas of M&E.

Each module included presentations by participants and/or resource persons, group discussions, and recommendations. All participants prepared papers (listed in the Editorial Note) explaining the work of their organizations in the fields of M&E. A number of papers were also prepared by resource persons.

The Current Status of M&E Systems in South Asia¹

Factors affecting the organization of the central M&E functions

All of the major South Asian countries² have established a central monitoring (and evaluation) agency (CMA) responsible for monitoring all foreign aided (and large nationally financed) projects. Although the mandate of most CMAs includes evaluation, in practice the evaluation of project impacts receives much less attention than the monitoring of project implementation. While project monitoring systems were established soon after each country gained independence,³ the evolution of the systems has been very controversial. In every country, the present M&E system has been operating for less than three years (Sri Lanka since 1986, India since 1985, Bangladesh since 1984, Nepal since 1986, and Pakistan since 1987).

In order to understand the controversial history of central M&E systems and their constant reorganization, it is necessary to identify the main "stakeholders" involved in the design and use of M&E. At the national level, the principal stakeholders are the highest level policymakers (cabinet, council of ministers, committee of development secretaries, etc.), the national planning agency, the ministry of finance, the prime minister's office, the line ministries and, in some countries, parliament. All of the South Asian countries have a considerable degree of central economic planning. Consequently, the central planning or finance agencies have often sought to use monitoring as an instrument of financial control and budget allocation. This has frequently led to protest by the line ministries that their autonomy and financial independence is being eroded by a super ministry, and in some cases has resulted in a reduction of power or a relocation of the central monitoring agency. These controversies continue in many countries and explain the relatively short history of many of the CMAs. In a number of countries, the CMA has been transferred from one central agency to another,⁴ while in other cases different ministries are developing parallel CMA systems.⁵

1. Much of the information for this section was taken from Adil Khan (1989) "A South Asian Regional Study on Current Thoughts and Practices in Monitoring and Evaluation," Economic Development Institute, and from the papers prepared by the seminar participants.

2. Information was not obtained on the Maldives and Bhutan, as they did not attend the seminar. All of the other South Asian countries—namely Bangladesh, Burma, India, Nepal, Pakistan, and Sri Lanka—were represented and are covered by the present discussion.

3. With the exception of Nepal, which has not been under colonial rule in recent history, all of the other countries have obtained their independence since 1945.

4. In India most of the responsibility for project monitoring was transferred from the Planning Commission to the Ministry of Programme Implementation (reporting directly to the Prime Minister's Office), while in Sri Lanka the CMA passed from the Ministry of Finance and Planning to the newly created Ministry of Plan Implementation.

5. In Nepal the Ministry of Finance and the National Planning Commission have developed CMA systems, which appear to overlap considerably.

Another area of controversy relates to the issue of decentralization and the roles of national, provincial or state, and local agencies in the planning and management of development programs. The debate over who should monitor projects is related to the broader issue of budgetary control, and the high degree of central control over project monitoring parallels the central control of the budgeting process. Governments in South Asia seem to have had little discussion on "beneficiary evaluation," in which the intended project beneficiaries play an active role in monitoring and evaluating project performance. However, beneficiary involvement in project planning and monitoring is implicit in recent decentralization legislation policies in a number of countries.⁶ Beneficiaries have not been considered a major stakeholder in the debate over the M&E of public sector programs, although beneficiary involvement is advocated and practiced by most nongovernmental organizations (NGOs).

The other key stakeholder is the international aid organizations who finance many of the major development projects. The donor agencies have continually urged governments to provide better information on the financial and physical progress of project implementation and in several countries, notably Bangladesh and Nepal, have played a major role in financing and structuring the CMAs. Donor agencies have frequently required that a monitoring (and possibly evaluation) component be built into projects they finance. The procedures for foreign aid financing and the changing concerns of donors have influenced the structure and priorities of the CMAs. For example, most donors only finance project implementation and expect operations and maintenance to be financed by the borrower. Consequently, many monitoring systems for donor-aided projects are disbanded once physical implementation is completed, so that often no monitoring information is collected on project operation, maintenance, or project impacts. Similarly, at the national level donors require prompt information on project implementation and loan utilization, although there is no corresponding pressure to monitor the operations phase of projects. Hence, it is common to find that while CMAs produce detailed and reasonably timely information on the physical and financial status of project implementation, there is often no information available on how well the projects are operating, the status of maintenance, or whether they have produced their intended benefits.

Seminar participants complained that many of the M&E systems at both the central and project levels responded more to the information needs of the donor agencies than to the needs of project management. This is particularly problematic in large projects such as the Mahaweli Irrigation Project in Sri Lanka⁷ where at least 15 donor agencies are involved, most of whom have their own monitoring information requirements, all of which must be covered by the project M&E unit.

The bias towards implementation monitoring is reinforced by the structure of government budgets where the bulk of resources are allocated through the Annual Development Programme (ADP) to new capital investment projects, and very meager resources are allocated to the revenue budget to cover operations and maintenance.⁸

The location of the CMA varies from one country to another (see Table 1.1) and has also been subject to frequent changes of location and authority within each country. In Bangladesh and Pakistan, the CMAs are under the Planning Commission; in Nepal, both the Ministry of Finance and the Planning Commission have developed their own systems; in Sri Lanka, projects are monitored by the Ministry of Programme Implementation; and in India, projects are monitored by the Ministry of Programme Implementation, while social program are evaluated by the Planning Commission. No CMA had been operating in its present form for more than three years.

6. For example, the Nepal Decentralization Act of 1986 explicitly requires the involvement of local organizations in project review meetings.

7. See Attanayake (1987).

8. See Adil Khan (1989) for a description of budgeting and planning procedures and the role of the Annual Development Programme in each of the South Asian countries.

Table 1.1 Organization and Functions of Central M&E Agencies in South Asia

Bangladesh	Implementation, M&E Division (IMED) was established in 1984 under the Planning Commission as a successor to an earlier apex monitoring unit. Responsible for physical and financial progress monitoring of all development projects and feedback to line ministries. Has concentrated on implementation monitoring. Public enterprises are monitored by a separate agency.
Burma	Project Appraisal and Progress Reporting Department was established under the Ministry of Finance and Planning in 1972. Responsible for appraisal, monitoring physical and financial progress, and for project completion reports. Also responsible for monitoring public enterprises.
India	The Project Monitoring Division of the Ministry of Programme Implementation (MOPI) was established in 1985. MOPI monitors megaprojects (over 200 million rupees) as well as the Prime Minister's 19-point poverty eradication program. The Management Information Division and line divisions of the Planning Commission monitor all centrally managed and sponsored projects. The Programme Evaluation Organization of the Planning Commission evaluates social sector programs.
Nepal	The Programming Division of the National Planning Commission monitors "Nationally important projects." The Program Budgeting and Monitoring Cell of the Ministry of Finance is pilot-testing systems that will monitor both physical and financial progress of all major projects.
Pakistan	The Projects Wing of the National Planning Commission oversees the financial and physical progress of national projects funded under the Annual Development Programme and intensively monitors selected projects. Public manufacturing enterprises are monitored through the performance evaluation system of the Expert's Advisory Cell of the Ministry of Production. The Auditor General's Office is developing a performance evaluation system.
Sri Lanka	The Progress Control Division of the Ministry of Plan Implementation is responsible since 1986 for "Close Monitoring of Projects and Programmes" of about 140 major projects and for developing indicators of physical progress. Major development programs such as the Mahaweli Irrigation Authority have their own M&E systems.

Note: This table only refers to the location and functions of the Central M&E Agencies and does not describe the complete system of M&E at the national and provincial/state levels. See Chapters 2-8 for detailed country descriptions.

The emphasis on monitoring project implementation

Although many CMAs also have the responsibility for project evaluation,⁹ in South Asia resources have been allocated almost exclusively to monitoring project implementation, and very little attention has been given to monitoring project operation and maintenance, assessing project sustainability, or to evaluating whether a project has produced its intended impacts. This has led to the seemingly paradoxical situation in which substantial resources are invested to ensure that projects are properly implemented. Little concern has been paid to assessing whether the projects continue to operate (do children attend the schools, are the health clinics still operating, does a usable volume of water continue to flow through the irrigation channels?) or whether they actually produce the intended impacts (does improved irrigation affect income? does the presence of health centers affect health? do better roads affect employment or agricultural production?).

9. India is the only country where there is an explicit separation of the monitoring (Ministry of Programme Implementation) and evaluation (Planning Commission) functions.

One of the most intriguing issues discussed in the seminar was why both governments and donors are willing to establish sophisticated programs to monitor implementation, but seem unwilling to invest resources to evaluate whether the projects are contributing significantly to national development objectives.¹⁰ A number of factors contribute to this situation.

A primary consideration is that both donors and borrowers are more concerned with capital investment than with operations and maintenance. In all countries in the region (and probably in many other parts of the world), development budgets (for capital investment) dwarf revenue or recurrent expenditure budgets. Building a new road or school is much more attractive to governments than investing money in repairs and maintenance. Donors have been equally reluctant to include funds for recurrent expenditures in their loans or grants (although in recent years they have been more willing to fund rehabilitation projects). The problem is not just a lack of funds for monitoring project operations and maintenance but rather that only very limited funds are authorized for maintenance activities at all. Because implementation is a priority area, funds are available for implementation monitoring. Operations and maintenance have low priority, so funds are unavailable for monitoring. The question of why operations and maintenance receive such a low priority goes beyond the scope of the present chapter¹¹.

Another related factor is that M&E activities are often funded as part of a loan or grant from an international agency. Typically the loan only covers the period of project implementation, so the funding for the M&E studies usually ends when implementation is completed. This happens frequently even when the terms of reference state that studies should also be conducted to evaluate impacts. A whole generation of urban development projects has included a requirement to evaluate project impacts, but the funds to conduct these evaluations were terminated, and the M&E units were often disbanded just as the first families were settling into their new houses.¹²

During the 1970s numerous attempts were made to apply in developing countries the kinds of sophisticated quasi-experimental designs which were being described in the Western evaluation literature (Campbell and Stanley 1972) and which were being applied to some of the major War on Poverty Programs, such as Head Start, Experimental Housing Allowances, and Negative Income Tax.¹³ It is probably fair to say that few if any of these large-scale evaluations in developing countries lived up to their expectations or were considered cost-effective and useful by their intended audiences. By the early 1980s most of these ambitious impact evaluation designs had been abandoned in most developing countries in favor of much more modest monitoring systems. Casley and Lurey (1982) report that ambitious evaluations of agricultural projects with approximations to quasi-experimental designs were attempted in the 1970s to construct farm production and household consumption models. Most of these efforts proved extremely expensive and produced such limited results that donors and governments are now mainly concerned with collecting very basic monitoring information on agricultural inputs and outputs. Similarly ambitious evaluation designs were developed for urban projects (see Keare and Parris 1982 for a discussion of the World Bank's efforts to conduct a comparative M&E study of some of the early World Bank urban housing

10. These issues are discussed further in Michael Bamberger (1989).

11. A recent EDI seminar in Bangladesh on "Project Sustainability" reconfirmed the low priority given to sustaining development projects and examined some of the reasons. See Bamberger and Cheema (forthcoming).

12. See Bamberger, Gonzalez-Polio, and Sae-Hau (1982) for a related discussion on a World Bank housing project in El Salvador, and Keare and Parris (1982) for a more general discussion of World Bank experience with monitoring and evaluation of urban development programs.

13. Beginning in the early 1960s a number of massive social programs were started in the United States designed to attack the basic causes of poverty by providing access to housing, education, health, employment, and other social services. Many major longitudinal evaluation studies were conducted to assess the impact of these projects and to estimate their quantitative contribution to the eradication of poverty. See Rossi and Wright (1984) for a review of these studies.

projects). USAID and other agencies have also funded similarly sophisticated evaluations of, for example, water supply and health programs—also with only limited success.¹⁴

Because of these negative experiences, the practical utility of impact evaluations is widely questioned in Asia, as well as in other developing regions. Many government planners and policymakers, and probably most project managers, argue that impact evaluation should either be abandoned or considered academically oriented research which should not be financed with project funds. However, in recent years donors and some governments have had renewed interest in a developing less ambitious and more cost-effective forms of project evaluation (such as USAID's Rapid Impact Evaluations).

Another consequence of the difficulties with impact evaluations is the widespread belief in many developing countries that M&E should be considered separate activities to be conducted by different units or agencies.¹⁵ The generally negative image of impact evaluation has made it difficult to assess the potential merits of developing integrated M&E units. However, despite the almost exclusive concentration on monitoring, the mandate of many central and state monitoring agencies also includes evaluation (for example, the Implementation, M&E Division in Bangladesh, the Planning Commission in Bangladesh, and at least two of the Provincial M&E Cells in Pakistan). Consequently, the term "Monitoring and Evaluation" (M&E) will normally be used, except for agencies whose functions are clearly limited to only monitoring or evaluation.

Who uses M&E?

It seems likely that less use is made of either monitoring or evaluation in developing than in developed countries.¹⁶ This is due in part to the feeling that monitoring has been imposed by the donor agencies and is intended to serve donors rather than be a tool of project managers.¹⁷ Similarly, when evaluation studies are done, they are frequently subcontracted to universities and consulting groups. The studies are often very theoretical and produce no results for several years, so that most have been of limited practical use to managers or planners.

In many countries where monitoring systems are operating, their main utility is probably not to the project manager, but to the central planning and finance ministries. These central agencies use monitoring to control managers and project the flow of foreign aid, and for financial planning and control. Even when M&E are both conducted by planning ministries (IMED in Bangladesh, Ministry of Planning in Nepal), the studies are used mainly for monitoring rather than planning. A characteristic of most M&E systems is the serious under-utilization of the data, which has been collected and analyzed at great expense. Data collected during the monitoring of a project is often filed and forgotten once project implementation is completed. In none of the South Asian countries is there any systematic creation of a national data bank that can be used for planning future projects.¹⁸ Apparently, in no South Asian country is a data bank being created to improve the quality of economic and financial analyses of new projects.

14. Population and health are perhaps the only sectors that have had some modest success with randomization designs. See Dennis and Boruch (1989).

15. One consequence has been a dichotomization between short-term monitoring studies on the one hand and long-term impact evaluations on the other. This has made it difficult to conduct ongoing process evaluations or diagnostic studies to provide rapid feedback on operating well as they tend not to fit into the organization structure of either the monitoring or the evaluation units.

16. This is not to ignore the many political, economic, and organizational factors affecting evaluation utilization in the United States and other industrial nations. See, for example Chelimsky (1987). For problems in the use of evaluation findings, see also Chelimsky (1988).

17. In a study conducted by one of the authors a project manager stated that he had not even realized that project monitoring was intended to be of any utility to him. He had simply considered the collection of monitoring data as a requirement of the donor agency which had to be complied with.

18. The Auditor General's Office in Pakistan has recently begun the creation of such a data bank to compile data on the cost and time duration of different components of project implementation.

Management Issues in M&E in Asia

Effects of M&E practices on project management

The highly centralized nature of M&E systems means that they are seen primarily as an instrument for central government to control managers—not as a management tool to improve project performance. One potential danger is that current M&E systems tend to weaken project managers by reducing their areas of responsibility and making them subject to increased central control. In many cases the monitoring information produced by the project M&E unit must be sent to the central M&E agency for compilation and analysis. The CMA, rather than the project manager, decides what actions are to be taken to correct certain categories of problems that have been identified. In addition to causing delays, this makes the manager less directly accountable and reduces his/her incentives to improve project performance.

Of course, all of these problems should not be blamed solely on the M&E system since they are a product of centralized planning in all of the South Asian countries. Central control of finance, design, and implementation is the cause of how M&E systems are organized—not the consequence.

Most project M&E systems are required to produce information for a large number of government and donor agencies. Often the M&E unit will not even be consulted as to the kinds of data to be collected and may not even know how it is to be used. In many cases the M&E unit is reduced to little more than a data collection service. The kinds and volume of information requested often bear no relationship to the staff and financial resources available for data collection.¹⁹

Another very serious consequence of the centralized approach has been a lack of concern for the quality of the data. Participants from CMAs in various countries reported that most of their staff are located in the central office and spend most of their time requesting and analyzing monitoring data, and consulting with the responsible line ministries. The monitoring staff have very little time or resources to travel to the field, to understand the problems firsthand and to assess the quality of the data. Forms are sent to the local offices of line ministries and the data is entered on the forms by the local officials and then returned to the central agency.²⁰ Much of the data is widely recognized as incomplete, carelessly collected or in some cases deliberately falsified. Since there is little feedback from the central agency to the local staff, there is no incentive to take care with the collection and presentation of the data in the reports. None of the agencies represented at the seminar had any systematic data quality control procedures.

For the above reasons, many line managers and project agencies look upon M&E as a waste of time, a nuisance, or even a threat. It is unusual to find a line manager who sees the national M&E system as helping him/her to improve project performance.

A further problem is that an effective M&E system would make substantial demands on the time of the small number of well qualified professionals in the project office. The demands affect not only monitoring staff, but also senior managers who must help in the study design and more importantly in the interpretation and use of the findings. Since most projects have a small and overworked staff, this can be a serious problem.

A conflict may also exist between operations and evaluation. An impact evaluation normally requires a control group that does not receive the project services. For political and

19. One seminar participant who was the director of a large M/E unit cited a case where he had received a 50-page list of data requested by one donor. In another case a donor presented a long survey instrument to be completed within two weeks so that the data would be ready before the end of the supervision mission. The manager's opinion was that neither donor had any clear idea of how most of the data should have been used, even if it had been feasible to collect it.

20. See for example, Taifur (1987) and Aghai (1987) for an explanation of the data collection procedures used in Bangladesh and Pakistan, respectively.

ethical reasons, it is difficult to deliberately exclude certain groups from a project. Random selection of beneficiaries (for example, in the allocation of new houses) can run into similar criticisms from project managers and politicians who wish to be directly involved in the selection of beneficiaries (for example, to use selection as a reward for political loyalty).

Identifying stakeholders and reconciling their interests

Many different national and international organizations are concerned, in one way or another, with how a project performs; all have some influence over what kinds of M&E studies are conducted. Each stakeholder tends to have different interests and priorities with respect to the kinds of studies that should be conducted and how the data should be used. These conflicting information requirements can cause severe problems both at the central and project levels. Some typical problems arising from conflicting demands at the level of the central M&E agency include the following:

- Staff resources may be diverted at short notice to monitoring special programs initiated by the president or the prime minister to combat poverty or to generate employment.²¹
- Donor agencies may request the CMA to conduct broad or long-term studies to assess project impacts or to study the operation of a housing or agricultural market, which make no contribution to improving the performance of the project under which the studies are being financed.
- The central government may require agencies to provide standardized quantitative data on all projects rather than allow them to tailor the M&E systems to suit the information needs of each project.

The following are some of the problems arising from conflicting demands at the project level:

- Different donor agencies use different reporting and accountability systems;²² hence they require different information from the project.
- The M&E unit may receive requests from several different government agencies to provide information or conduct ad hoc studies.
- The project may be required to provide periodic information to several government agencies such as the ministry of planning, ministry of finance, and the line ministry responsible for the project.
- Ad hoc requests may be received to conduct rapid studies for project management as problems arise. Management often require information within a few weeks and expect their requests to receive priority over any other studies which are under way.

The seminar showed that although all M&E directors were well aware of the problems created by these competing demands, none of the M&E systems included any procedures for establishing priorities among those demands. Prioritization of studies is almost never discussed when the terms of reference for the M&E program are being defined.

Problems in the effective use of M&E

Since most M&E agencies do not clearly identify the stakeholders to be served by the studies, not surprisingly there is usually no clear understanding of the information needs of

21. In India a "19 point programme" focusing on poverty eradication was established recently by the Prime Minister. The Ministry of Programme Implementation is charged with monitoring the performance of this program. Somewhat similar programs have been established in Nepal (by His Majesty) and in Pakistan (by the Prime Minister) and in both cases a special unit was created to monitor them.

22. In addition to different financial and physical monitoring systems, many donors also request information on topics such as project impact on women or the environment, which are required by their national parliaments or congresses.

different groups. Users frequently complain that M&E reports are too long, come too late do not focus on the key issues, or do not provide the required kinds of data. These problems are difficult to resolve because many stakeholders do not know exactly what kinds of data they will need, and because it is often assumed that an M&E system (particularly once it is computerized) can collect information on almost any subject without significant cost or time implications. Many people also assume that M&E consultants or "experts" are responsible for defining what information is required. Many stakeholders also do not appreciate the expense and time required to conduct studies and assume that any question they ask can be answered within a very short time without great cost.

A second problem is that many evaluators come from an academic rather than a managerial background and have difficulty in understanding management information needs. Some typical communication problems are the following:

- The evaluator spends a long time conducting a rigorous study and would like to present all of the results in a long report with many tables and annexes. The manager, on the other hand, needs something very short.
- Evaluators frequently phrase their conclusions and recommendations very cautiously with many qualifications and tend to put them at the end of the report. Managers, on the other hand, want very specific recommendations at the beginning of the report where they can easily be found.
- Many researchers are not used to working under time pressure and object to having to produce results within a short period. Managers frequently need information very quickly, even if it is not academically rigorous.
- Many researchers find it difficult to understand the kinds of operational decisions a manager must make. Frequently the researcher wishes to "educate" the manager as to "what the really important issues are" rather than helping resolve the much more mundane problems arising during project management.

A third problem is that managers frequently see M&E studies as a potential threat and may be reluctant to disseminate the reports too widely or to take seriously the information and recommendations. Seminar participants said that government officials, in both central and line ministries, would not want monitoring or evaluation reports that documented problems they did not wish to confront and many of which were already known to them. The unequivocal documentation of these problems would make them much harder to avoid.

Criteria for the selection of monitoring or evaluation studies

In most countries there is no established criteria for the selection or prioritization of monitoring or evaluation studies. Many different stakeholders request information and the selection of studies depends more on the influence and persistence of stakeholders, the availability of resources, and the personal preferences of project management and the M&E director and staff—rather than on a predetermined research program.

Rigorous, and often quite costly, procedures have been developed that are now widely accepted for assessing the economic, technical, and financial viability of projects. There is no similar consensus on the approach or even the justification for studies to evaluate project efficiency or impacts. No generally acceptable methodologies have yet been developed for assessing the potential benefits and costs of an evaluation study,²³ and potentially useful evaluation studies may often be dismissed as "too expensive." It was agreed that cost-effectiveness analysis can be applied to decisions about evaluation studies in the same way as to decisions about service delivery systems. The potential benefits from any evaluation study must be defined (usually these involve cost savings from more efficient implementation

23. An example was cited in the Seminar of an evaluation of the United States Experimental Housing Allowance Program which cost \$50 million but which was considered to be very cost-effective as it could potentially save *billions* of dollars a year by identifying the most cost-effective way to provide better housing for low-income families.

methods or from making the right choice about a future project) and then compared with the cost of conducting the study.²⁴

Principal uses for M&E studies

The seminar discussed some of the main ways in which M&E studies could be used at the national and project levels. Eleanor Chelimsky (1988) suggested that evaluation studies can be used for policy formulation, policy execution, or accountability. She also identified six commonly used approaches to program evaluation: front-end analysis, evaluability assessment, process evaluation, effectiveness or impact evaluation, program and problem monitoring, and meta evaluation or evaluation synthesis.²⁵ During the seminar discussions, it was also suggested that the functions of M&E should be identified at each stage of the project cycle:

- During project preparation, exploratory evaluation studies can help assess the acceptability of projects to different sectors of the target population, and potential implementation problems can be identified (Chelimsky's "front-end analysis"). Social analysis can also help design projects to ensure benefits will reach all sectors of the target population. The results of evaluation studies on earlier projects (Chelimsky's "meta analysis") can also be used to improve the data base for the economic and financial analysis of the project.

The information can be used by project planners and by national agencies, such as the ministries of finance and planning and the auditor general's office.

- During project implementation, regular monitoring studies can ensure the project is being implemented according to its physical and financial schedule, identify actual and potential problems and propose solutions, assess the effectiveness of the implementation procedures used for each component, and ensure that benefits are reaching the target population.
- At project completion, M&E can improve the quality of the project completion report and ensure that lessons are learned for the selection and design of future projects.
- During project operation, monitoring studies can assess the adequacy of maintenance procedures; assess project implementation procedures, including coordination with agencies and beneficiaries; and ensure that benefits continue to reach the target population.
- When the project has been operational for several years, project sustainability can be monitored to assess whether the project is achieving and will be able to sustain its intended objectives.²⁶ These studies can include monitoring the condition of infrastructure, buildings, and equipment; assessing the financial viability of the project and the provision of resources to ensure its sustainability; assessing the viability of the organizations responsible for implementation; and assessing impacts to determine whether the intended benefits were received by the intended target groups.
- M&E can also contribute to the planning and design of new projects by presenting information on the performance of previous projects. Some of the main contributions involve data to be used in economic and financial analysis, data on the cost-effectiveness of different methods of project implementation, comparison of the planned and actual costs and time to complete each component, and analysis of factors affecting the distribution of benefits.

24. An example of this methodology is given in Bamberger and Hewitt (1982) pages 55-57.

25. Chelimsky (1988) pages 10-16.

26. A presentation was made in the seminar on the work of the World Bank Operations Evaluation Department. Recently they have produced a number of reports assessing the sustainability of World Bank-financed projects.

Methodological Issues in Project Evaluation²⁷

The main kinds of project evaluation

This section summarizes the methodological issues discussed during the seminar. Three main kinds of project evaluations were identified.²⁸

1. Estimation of (net) project impacts through experimental or quasi-experimental design, referred to as "Impact Evaluation."

2. Assessment of a particular project's effectiveness by comparing the estimated costs with either the estimated outputs (cost-effectiveness analysis) or the estimated benefits (cost-benefit analysis), referred to as "Effectiveness Evaluation."

3. Assessment of the efficiency and replicability of the project design and methods of implementation, and evaluation of how the outcomes and impacts were affected by the implementation process, called "Process Evaluation" or "ongoing evaluation."

Most of the seminar discussion focused on the first two categories, so only these two will be discussed in this section.

Impact Evaluation

CONCEPTUAL ISSUES. The design of an impact evaluation requires a clear definition of the project implementation model²⁹ and a statement of the project objectives, inputs, methods of implementation, intended outputs, expected impacts, and the assumptions about beneficiary responses. In many projects these elements are not stated clearly so that it is difficult to develop the model on which the evaluation will be based, and the evaluators may be required to make their own assumptions (about intended impacts for example).

An impact evaluation also assumes that the following kind of statement can be made about causal relations: "the project contributed to a reduction of infant mortality." Many writers question the feasibility of making this kind of statement in the complex environments in which projects operate. Others even question whether it is meaningful for the social sciences to try to establish causation, or whether their objectives should be more modest (for example, to identify associations between different events without trying to assess causal relationships).³⁰

A related issue is whether the paradigm of the "Scientific Method" used in the natural sciences is applicable to the social sciences, and particularly to development programs. Most programs are so complex, involve so many different variables, and operate in such a constantly changing environment that the development and testing of specific and rigorously defined hypotheses may be neither feasible nor useful.

METHODOLOGICAL ISSUES. Applicability of the quasi-experimental design (QED) paradigm. Most QED designs require the selection of a control group with similar characteristics to the experimental or project group. In many cases this is not feasible (see below). QED also requires that the conditions of the experimental and control groups be compared before and after the project. However, for many development projects, there is no precisely defined moment when the project begins and ends. For example, does a housing project begin when the first rumors circulate that piped water will be introduced into the community, when the loan agreement is signed, when the infrastructure work begins, when the first families receive water, or when all families receive water? The situation is further complicated because

27. This section is based on the presentation and discussion of a paper by Michael Bamberger "Methodological Issues in Project Evaluation."

28. The terminology and concepts used in this section are taken from the following three references used in the seminar: Casley and Lurey (1982), Bamberger and Hewitt (1982), and Khan (1989).

29. See Bamberger and Hewitt (1982), Annex A.

30. See Cook and Campbell (1979), Chapter 1.

many projects include different components which may be introduced at different points in time.

Projects involve complex processes and relationships between many different actors and activities. These processes can meaningfully be dissected into discrete events so as to apply the QED approach. For example:

- Processes, such as house construction, farming practices, and reorganization of small businesses, do not have a neat beginning and end.
- Projects cannot be neatly divided into those that do and those that do not involve community organizations.³¹
- Maintenance is a continuous process—not something that can be measured at one point in time. For example, an irrigation project may have an intended life of 20-30 years; maintenance will be required throughout this period.
- Interaction between the project and its environment is also continuous. The patterns of interaction are likely to change over time.

SAMPLING ISSUES.³² It is frequently difficult to separate clearly the control groups from the project or experimental groups. A family may receive some project services, but not others. There is thus a gradation of levels of intensity of exposure rather than a clear-cut separation between groups exposed and not exposed to the project. When an evaluation is being designed, it may be impossible to know which families will form part of the experimental group. Some of the families selected to form part of the control group may later be incorporated into the project. In some cases a complete control community may be incorporated into the project, or sectors of the original project group may never receive intended services.

Selecting a representative control group is often very difficult. If a project seeks to provide services to all families in a certain category (for example all villages in the province or all occupants of the poorest slums), there may be no control group with similar socioeconomic characteristics. Often the control group must be selected from families with somewhat different characteristics.

In those cases where participants must take the initiative to apply for project services (credit, fertilizer, housing), the control and experimental groups are likely to have different motivations. If the project participants have a higher level of motivation (they took the initiative to apply to the project), it may be their motivation—not the project services per se—that is the cause of any observed impacts. It is extremely difficult to control these motivational differences in the research design.

Due to such factors as high mobility rates, unclear addresses, and changing household composition, it is often very difficult to maintain contact with the original sample of respondents and to re-interview them several years later. Hence, it may be impossible to use QED designs requiring that the same subject be interviewed before and after project implementation.

Many projects require analysis at different levels of disaggregation, which may further complicate the sample design. For example, in an evaluation of a primary education project, studying the operation of the project at the national, provincial, district, and household levels may be necessary. Each level will require a different survey and different sample.

It is often difficult to obtain a large enough sample to find statistically significant differences between the experimental and control groups or between the *before* and *after* measurements. Thus, the analysis may appear to show that the project has not produced any

31. Uphoff (1988), points out that the *form* of participation of community, political, or government organizations is usually more important than their mere presence or absence. Consequently, simple dichotomous participation variables tend not to be statistically significant in explaining program outcomes. Norman Uphoff "Approaches to Community Participation in Agriculture and Rural Development" Economic Development Institute. The World Bank (1988).

32. Sampling issues are discussed in Bamberger and Hewitt (1982), Annex E, Section C.

impacts when the problem is due to the statistical power of the test. This is particularly problematic when assessing the impact of projects that only produce small changes or affect a small proportion of the population.³³

MEASUREMENT ISSUES. Most evaluation researchers prefer a single method of data collection and conduct no reliability or validity tests to check the quality of the data. All data collection methods include certain biases;³⁴ reliance on a single method will produce a mono-method bias.³⁵ This problem is compounded because evaluation researchers tend to divide themselves into those who use quantitative and those who use qualitative methods; very few use both in a systematic, coordinated way.

Many key impact variables are difficult to quantify, so these variables are frequently ignored in the impact evaluation. Whereas most studies include income, employment, and perhaps ownership of consumer durables as impact indicators (for urban development projects), potentially important indicators, such as satisfaction with the project, stability of the household group, strengthening of community organizations, and improvements in health, often are not assessed.

There is a strong bias towards the monetization of benefits (that is, only including benefits to which a monetary value can be assigned), since the monetary values can then be incorporated into a cost-benefit analysis. Often it is assumed that a single indicator, such as changes in rent or in value of farm land, or sale of a particular crop, can be used as a proxy for all benefits produced by the project. This kind of economic reductionism is often based on a set of extremely unrealistic assumptions (see below).

Evaluation textbooks recommend the use of triangulation in which at least two independent estimates are obtained for each key variable. However, this procedure is rarely used systematically.

A potentially negative consequence of the increasing use of computers in evaluation research is the tendency to eliminate qualitative and non-numerical data since this information is more difficult to process electronically. Consequently, much valuable qualitative information tends to be ignored.

Frequent reference was made in the seminar to the unwillingness of many respondents to provide accurate information on key dependent variables, such as income, ownership of land, rental income, profits from business and contraceptive behavior.

ISSUES IN THE ANALYSIS AND INTERPRETATION OF EVALUATION FINDINGS. Several participants referred to the complex nature of large development projects, their interactions with their environments, and the long periods and wide geographical areas over which impacts must be assessed. The question was raised whether it will ever be possible to isolate the effects of projects from all of the other complex changes taking place. Adil Khan³⁶ cited the many studies which have tried to evaluate the impacts of the "Green Revolution." In many areas the combination of new strains of rice, fertilizer, and improved methods of cultivation initially produced dramatic increases in yields. However, studies over a longer period showed that the increases were often not sustained or that they were only enjoyed by a small group of higher-income farmers. This example shows the dangers of trying to assess

33. For example, a successful health program might reduce infant mortality from 150 per 1,000 live births to 120 per 1,000. This relatively small numerical change, combined with the fact that only a small proportion of women will have a live birth in a given year, means that it might be necessary to have a random sample of several thousand households in order to detect a statistically significant change in infant mortality.

34. For example, responses to a questionnaire will frequently under-report secondary employment or secondary sources of income many of which are illegal or which the respondent may for some other reason not wish to declare.

35. The best discussion of these issues is in Cook and Campbell (1979) and in some of the earlier works by Campbell which are cited in this book.

36. Khan (1989).

the impacts of a complex project over the relatively short time frame normally used in evaluation research.

The complex nature of most development projects means that the simple QED models are inappropriate and may produce misleading results.³⁷ However, these models continue to be unquestioningly used by many evaluators. Projects involving multiple treatments and producing multiple outputs and impacts require multivariate analysis and the design of survey instruments to collect all the required information. This is rarely done.

Many evaluation reports make statements about causal relations without considering any of the basic conceptual issues discussed earlier.

OPERATIONAL ISSUES. Before starting an expensive and time-consuming impact evaluation, project management and the evaluation team should decide whether the findings of such a study would be operationally useful and cost-effective. An Evaluability Analysis is often useful to determine whether it is technically possible to produce reliable conclusions from the kind of evaluation study proposed. Management must often decide on a trade-off between cost and precision—whether it would be better to have less precise results that can be produced more quickly and economically.

Conflicts often arise between project implementation and evaluation. Evaluations compete for the services of scarce professional staff. They may also cause problems for management by creating expectations among participants or the control group about the kinds of services to be provided and about who will have access to them. For example, the control group may assume they will be selected to participate in the next phase of the project, but the researcher would like to ensure that the control group is not exposed to the project and does not receive benefits from the project. However, for political, administrative, and even ethical reasons, it may be impossible to ensure this isolation.

The project manager has a short-term, problem-solving focus, whereas the evaluator has a longer-term perspective. Hence, the evaluator may be labeled impractical and criticized for not helping managers solve their immediate problems.

The schedule of project implementation and the project design may suffer significant changes from time to time. This is very disruptive for the conventional QED designs, so the evaluation design must have the flexibility to adapt to these changes.

While acknowledging the important contribution of computers in M&E, participants referred to a number of practical issues limiting the use of computers in evaluation research in many parts of South Asia. Fluctuating power supply tended to be a serious problem. Another problem was the lack of trained computer operators, particularly with the move towards decentralized computer networks and the increased demand for operators.

Evaluating project effectiveness

CONCEPTUAL ISSUES. The standard procedures for cost-effectiveness analysis assume that a project has a single, clearly defined product or outcome, such as improved performance on a reading test, reduced unit cost of administering a small farmer credit program, or cost of constructing a dwelling unit of a standard size and quality.³⁸ However, most projects have multiple objectives (products). Selecting only one outcome for the analysis may distort the objectives of the program, but assessing multiple outcomes makes the analysis much more complex.

Both cost-effectiveness and cost-benefit analysis normally require a project to be compared with one or more alternative options, which already exist or are being considered.

37. Bamberger and Hewitt (1982), Annex E, Section C, illustrates the problems of using simple QED designs for the evaluation of urban projects. Most of the issues are also applicable to other kinds of projects.

38. A widely used and easy-to-read text is Henry Lewin *Cost-Effectiveness Analysis* (1984). The principles are also described in Bamberger and Hewitt (1982), Chapter 4, Sections E and F.

The assessed effectiveness of the project being evaluated depends heavily on the alternative used for comparison. Identifying an appropriate alternative is often difficult. Another approach is to compare the "with" and "without" project situations (this is often done for assessing industrial projects involving the expansion of an existing plant). However, there are many methodological problems involved in defining the "without" situation, since the constantly changing economic environment makes it a matter of debate as to what would have happened if there had been no new project.

A frequent criticism of cost-benefit analysis is that all benefits must be "monetized." This may mean that many potential benefits (health benefits of housing projects) or costs (environmental impacts or social dislocation) are left out of the analysis because they cannot be reduced to a monetary value. Often imputed market rent is used as a proxy for estimating benefits, but this can be very misleading, particularly when there is no free market for housing or other services.

Related to the previous point is the question of whether economic analysis produces a bias against "social" projects where many of the benefits cannot be monetized. Critics would argue that the application of economic analysis in project selection and evaluation may give social projects a much lower priority and lead to their exclusion, particularly when resources are scarce.

METHODOLOGICAL ISSUES. *Defining and measuring costs.* It is important to define "costs to whom?" Projects involve many different "stakeholders" each of whom may be responsible for covering different costs. For example, the municipality may provide free land for a housing project, but beneficiaries may have to pay for services. Costs sometimes appear artificially low when donated land and other free services are not included in project costs. Costs which are not easy to monetize, such as environmental and health hazards or the dislocation costs of moving, are often not considered. This may produce bias in the analysis.

The choice of the discount rate can significantly affect the estimates of costs and benefits. Within one country, different agencies may use different discount rates making intersectoral comparisons impossible.

The purpose of using cost-effectiveness and cost-benefit analyses in ex-post evaluations is to assess whether the pilot projects would be economically viable if replicated on a larger scale. However, the costs (and benefits) related to pilot projects are often quite different from those produced by a larger project. For example, the cost and location of land for larger projects will be different, and there may be greater difficulties of access to materials and labor.

Defining and measuring benefits. It is necessary to distinguish between outputs (building of houses, approval of small business credits, etc.) and impacts (the changes produced as a result of the outputs). The evaluator must decide whether outputs or impacts are to be evaluated since this will determine whether to use cost-effectiveness or cost-benefit analysis.

The monetization of benefits tends to be more difficult than the monetization of costs. First, many of the benefits will occur in the future, so they have to be estimated (whereas most costs have already occurred and can be measured). Second, identifying all of the potential benefits is difficult, since many are indirect. Third, it is difficult to put a monetary value on many of the benefits, such as improved health, increased family stability, improved labor productivity, etc.

Assuming that imputed rent can be used as a proxy for benefits is a danger. The use of rent is based on the assumption of a perfect market and complete knowledge of project outcomes and benefits. Using rent as a proxy when these conditions are not met can lead to very distorted estimates.

Cost-effectiveness analysis requires an equal interval output measure. For example, if a test of improved reading ability or knowledge of mathematics is used as an output measure for an educational television program, one may assume that an increase of 10 points on the reading scale is twice as large as an increase of 5 points and that an increase from 45 to 50 points is equivalent to an increase from 5 to 10 points. In the latter case an improvement of 5

points by a student with a very low initial reading level is probably much more significant than a 5-point increase for a student who is already a good reader. Similar scalability problems in the output measure occur when using indicators, such as numbers of housing units constructed or the efficiency of processing loan applications from small farmers.

Since the estimation of benefits or outputs is frequently the weakest part of the analysis, sensitivity analysis may be useful in assessing the effect on the estimated rates of return or cost-effectiveness ratios of using different measures of outputs or benefits. This permits a range to be given showing the highest and lowest estimates when different output or benefit measures are used.

OPERATIONAL ISSUES. Both researchers and policymakers must assess carefully the extent to which the evaluation of pilot projects can be used to guide decisions about the selection and design of larger-scale projects. These kinds of analysis can sometimes be quite expensive, so assessing the cost-effectiveness of the studies is necessary. A determinant of when evaluation studies are justified is whether there are plans to develop larger projects and whether the decisions about these projects can be influenced by the results of the evaluation. For example, if a political decision has already been made to extend an experimental educational television program to all provinces, conducting a cost-benefit analysis may not be justified. However, a cost-effectiveness analysis, in which different delivery mechanisms are compared, could be very useful.

The Organization of M&E Training in South Asia

In most South Asian countries M&E are only treated very superficially in middle- and senior-level training programs (see Table 1.2). Monitoring is covered more extensively in training programs for entry-level and junior staff where it forms part of general project planning and management courses. These courses emphasize the administrative aspects of completing the standardized reporting forms (pro forma), which are required for projects financed under the Annual Development Program (ADP).

In some countries, responsibility for M&E training is concentrated in one or two institutes (in Bangladesh the Academy for Planning and Development for the public sector and the Management Development Institute for the private sector; in Nepal the Administrative Staff College for the public sector and the Agricultural Projects Services Centre for the agriculture sector; and in Sri Lanka the Institute for Development Administration for the public sector and National Institute of Business Administration for the private sector). In countries such as India and Pakistan, there are many institutions that offer M&E training at the national and state levels.

Participants agreed that the content and levels of M&E training are inadequate in all countries in the region. Most courses are offered to entry-level or lower-middle-level staff, and are intended to explain to them how to complete the various pro forma. There is very little discussion of how the data will be used or of problems in data collection and interpretation. With the possible exception of India, almost no advanced training is available for M&E specialists, and in no country is regular training offered on the role of M&E in national development strategies. There is an urgent need to organize short seminars for senior policymakers and politicians to emphasize the potential benefits of an effective M&E system.

Table 1.2 Some Organizations Responsible for Monitoring and Evaluation Training in South Asia

Bangladesh:

- Academy for Planning and Development (junior- and middle-level government officials).
- Management Development Institute (mainly private sector and public enterprise officials)

India:

- Indian Institute of Public Administration (middle-level public sector officials, usually part of planning and management course)
- Indian Institutes of Management (middle- and upper-middle-level public and private sector officials, usually part of management courses)
- Universities (graduate planning programs)
- State training institutions (entry- and middle-level government officials)
- Sectoral training institutions (entry- and middle-level staff)

Nepal:

- Nepal Administrative Staff College (entry- and middle-level government staff)
- Agricultural Planning and Research Organization Service Centre (for the agricultural sector, usually as part of a general planning course)

Pakistan:

- Water and Power Development Academy (for power, water, and infrastructure sectors as part of planning and management courses)
- National Institutes of Public Administration (middle-level provincial officials)
- Pakistan Administrative Staff College (brief introduction for senior officials as part of general planning or investment courses)
- Pakistan Institute for Development Economics (higher-level courses for government officials, usually as part of planning course)
- Sectoral training institutes (such as the Academy for Rural Development)

Sri Lanka:

- Sri Lanka Institute for Development Administration (entry- and middle-level officials as part of planning courses)
 - Marga Institute (graduate students and higher-level seminars)
 - National Institute of Business Management (private sector)
-

Note: This is only a partial list of the major training institutions.

PART 2

THE ORGANIZATION OF MONITORING AND EVALUATION IN THE COUNTRIES OF SOUTH ASIA AND IN CHINA

2

BANGLADESH

Planning and Implementation

Bangladesh is now in the process of implementing its third Five-Year plan. Since 1971, the entire planning process could be organized with well-defined responsibilities at various levels, which are summarized in Table 2.1. Approving authority is decentralized according to the estimated cost of the project. The line ministry has the power to approve projects up to Taka 20 million³⁹ (Category A) after appraisal by the Departmental Projects Evaluation Committee (DPEC). Larger projects costing between Taka 20 million and 50 million (Category B) are approved by the Ministry of Planning after scrutiny by the Project Evaluation Committee of the Planning Commission (PC/PEC). Projects costing over Taka 50 million (Category C) are examined by the PC/PEC and the Ministry of Planning, and approved by the Executive Committee of the NEC.

However, projects relating to (a) balancing, modernization, rehabilitation, and extension (BRME); (b) technical assistance; (c) feasibility studies; and (d) Preliminary Project Pro Forma are processed by the Planning Commission even if these belong to Category A (less than 20 million Taka).

Table 2.1 The Planning Process in Bangladesh

<i>Function</i>	<i>Responsible Agencies</i>
1. Project identification	Local-level organizations, executing agencies; sponsoring ministries/departments or corporations. Planning Commission and donor agencies.
2. Technical scrutiny	Planning cells of line departments, ministries, and corporations.
3. Project appraisal and approval	Executive Committee of the National Economic Council, National Project Evaluation Committee, Departmental Project Evaluation Committees, Special Project Evaluation Committees.
4. Funding	Annual Development Programme (ADP), which also covers foreign aid allocation.
5. Project implementation	Line departments/ministries/corporations.
6. National policymaking	National Economic Council (NEC)

Note: See the Editorial note for principal sources used in preparing this chapter.

39. In December 1987, US\$ = 30 Taka.

Collection of statistics in the country is under the centralized management of the Bangladesh Statistical Bureau (BSB). All units collecting data at various administrative levels and in various sectors are placed under the BSB. Its responsibilities also include conducting periodical population and agricultural censuses.

Evolution of the M&E System

When the planning process started with the First Plan (1973-78)—with about 85 percent of projects funded by foreign sources—problems of project cost and time overruns, low utilization of funds, and general deterioration in project and plan implementation began to concern both the government and the donors. The need was felt for an institution for M&E, not only for feedback of financial and physical data to measure progress, but also for identifying problems needing solutions and developing an effective reporting system for taking timely corrective action.

The main institution for this purpose was the Programme Implementation Board (PIB), created in 1975. Its chairman, holding the rank of a minister, reported to the President. One of its tasks was coordination with the local consultative group, made up of a consortium of aid-giving countries. The status of the PIB was reduced in September 1975 when it was placed under the leadership of a secretary. It was expanded and renamed as Implementation, Monitoring and Evaluation Division (IMED) in the early 1980s and, except for a short period when it was directly under the President, it has continued to be a part of the Planning Commission.

IMED's main functions included evaluating implementation progress of projects and programs, data collection for periodic (monthly, quarterly, annual) reports to the government, field inspections, identification of bottlenecks, and suggesting remedial measures. The organization was conceived as a unit totally separate from the normal public administration, but since 1984, IMED officers have been encadred in the Bangladesh civil service in the interest of their career prospects. In the long run, this may strengthen their links with and ability to coordinate with the government. The IMED closely cooperates with line ministries, which are responsible for project implementation. While it identifies micro-level problems and suggests remedial action regarding various projects and programmes to the NEC, IMED also participates in preparing the monthly progress reports that line ministries are required to prepare based on their own monthly reviews of project progress and physical inspections.

The following institutions comprise the M&E system:

- Planning Cells of line ministries are responsible for identification and preparation of projects. Depending on their capabilities, they may also be called on to scrutinize some projects from a technical perspective. The cells in the Ministries of Irrigation and Education are particularly strong and active.
- External Resource Division (ERD) in the Finance Ministry is responsible for aid mobilization and liaison with donors regarding aid utilization through quarterly and annual reviews.
- Autonomous Bodies Wing, Ministry of Finance, which has established a computerized data base system, known as System for Autonomous Bodies Reporting and Evaluation (SABRE), for providing up-to-date standardized information on the performance of public enterprises, thus becoming an important link in the process of performance evaluation of the public sector. The Ministry of Finance had established an inspection team in the late 1970s to look into the financial difficulties faced by public enterprises, but the situation turned out to be more complicated, since many public enterprises were unable to service both their domestic debts (mainly from the nationalized banking sector) and foreign debt, which caused anxiety among the donors. They were also unable to pay any dividends to the owner, i.e., the government. The Ministry of Finance was therefore requested to form the autonomous

Bodies Wing to keep itself informed and to maintain better control over the financial and physical performance of public enterprises.

- Donor Monitoring Systems, consisting of tripartite review meetings and reporting by missions and consultants. The efforts have partly paid off. Yearly physical progress vis-a-vis program targets rose from 18 percent in 1975 to about 66 percent in 1986 and financial utilization from 55 percent to 84 percent over the same period.

Methodology of M&E

The coordination of project monitoring is the responsibility of IMED, with line ministries responsible for providing much of the information. Several donor agencies, most notably the United Nations Development Programme (UNDP) and the World Bank, have their own monitoring systems. The IMED methodology comprises the following three methods:

1. A progress reporting system has been established for all major projects which involves completion by the ministry or agency responsible for the project of three pro-formas (the contents of which are summarized in Table 2.2). IMED 01 is a quarterly report on financial and physical progress. IMED 02 is an annual progress report that reviews the financial status of the project, planned and actual progress, principal problems, and the actions taken to resolve them. IMED 03, which is the responsibility of IMED, is a bar chart in which planned and actual progress are compared. IMED 04 is a project completion report, which includes a comparison of planned and actual implementation schedules; and financial, physical, manpower, and benefit analysis. It is also intended to introduce PERT systems for project planning and monitoring. IMED staff are also required to visit each major project at least once a year to ensure quality control of the reporting system and to identify and help resolve problems beyond the province of the implementing agency (for example, problems caused by coordination difficulties between ministries).

2. IMED is also responsible for undertaking ex-post evaluation of projects. Due to lack of adequate expertise and personnel, the exercise is restricted to verification of physical achievements and analysis of their operations and maintenance position. Socioeconomic impact studies were not included in the evaluation of the twelve projects whose evaluation was completed during 1986-87.

3. The IMED has also developed an Input/Output Monitoring System (IOMS) designed to integrate resource needs of project implementors with results obtained by them. Little progress has been made so far towards the creation of Sustainability Monitoring or Project Benefit M&E (PBME) systems.

Review of the M&E System

The problem faced by Bangladesh in creating and operating the M&E system are similar to those faced by other developing countries. In addition to the understandable skepticism within and outside the government about its utility and impact on the pace of development, the system has also suffered from shortage of staff, inadequate training, and a lack of sufficient flexibility in the projects' work schedules to take care of unforeseen problems. A number of difficulties also stemmed from IMED's responsibility for diagnosis of problems without having the authority to take corrective action. Inevitably the monitoring system also was not able to assess fully such nonmeasurable variables as quality of work and optimal use of funds. More attention remains focused on quantitative aspects of both physical work and utilization of funds.

The location of the M&E agency within the politico-administrative system sometimes has an important bearing on its effectiveness. The conventional wisdom suggests a direct correlation between its chances of success and effectiveness, and its nearness to the highest authority. But in the case of Bangladesh, IMED's operating as part of the Ministry of Planning and headed by a Secretary enabled it to assimilate itself within the organizational set-up and to widen the scope of its activities better than its predecessor

organization, that is, the PIB headed by a minister and reporting directly to the President. The greater success of IMED underlines the need for M&E agencies to integrate themselves within the bureaucracy to gain acceptability within the system and to elicit better cooperation and coordination.

Table 2.2 The Reporting Format Used by IMED in Bangladesh

<i>Report</i>	<i>Contents</i>
01 Quarterly Progress Report	<ul style="list-style-type: none"> • General information • Financial status <ul style="list-style-type: none"> - allocation - release - expenditure • Physical progress <ul style="list-style-type: none"> - targets - progress - progress of related components - appointment of technicians - problems and their causes - comments of executing agencies - comments of administrative ministry
02 Annual Progress Report	<ul style="list-style-type: none"> • General information • Original and revised approval, commencement, and completion dates • Financial status • Physical progress (planned and actual) • Problems and steps taken to resolve them • Evaluation of steps taken to resolve problems • Comments of comments of administrative agency • Comments of ministry
03 Bar Chart	<ul style="list-style-type: none"> • Comparison of planned and actual progress
04 Project Completion Report	<ul style="list-style-type: none"> • Description of project • Planned and actual dates of approval, commencement, and completion • Financial analysis <ul style="list-style-type: none"> - costs - foreign financing - planned and actual annual expenditures - investment costs • Manpower analysis (planned and actual expenditures for managerial, technical, skilled, and unskilled workers) • Physical comparison of targets and achievements • Benefit analysis <ul style="list-style-type: none"> - expected and actual output - economic and financial cost-benefit analysis - non revenue earning benefits - foreign exchange earning - foreign exchange savings • Comments by sponsoring agency

Source: Adapted from Khan, 1989.

The evaluation system, with its slow start, will require more time to integrate itself into the administrative set-up and the planning and implementation process. Policymakers must be shown they can trust its usefulness. Resistance from development managers must be broken

down. These managers may look at it as "exposure" of mistakes committed by them rather than identification of genuine problems and pitfalls to be avoided in future.

The M&E system in Bangladesh, however, has come to stay. IMED and other institutions have been successful in creating linkages and processes of coordination within the development management system by establishing a positive role for evaluation within the government machinery. A regular system of periodic inspection of projects now exists, and the principle of accountability of project and program management has earned a degree of acceptance, which should in due course streamline the plan implementation process. But, like most other national monitoring authorities, IMED may also face questions about the priority of its triple functions of information gathering, diagnosis of problems, and facilitation of implementation through solving the identified problems. As development challenges grow, decisions may have to be made with regard to devolution of responsibilities to both higher policymaking bodies and M&E cells in line departments and agencies. This will create the need to strengthen the existing cells and, more importantly, to upgrade their capabilities by providing opportunities for both higher education and intensive specialized training.

Illustration of M&E at the Sectoral Level: The Bangladesh Water Development Board⁴⁰

An illustration of how a sectoral M&E system has evolved is provided by the Bangladesh Water Development Board (BWDB), an autonomous body under the control of the Ministry of Irrigation, Water Development and Flood Control.

Responsibility for M&E was originally assigned to the Program Directorate, but the absence of clearly defined responsibilities between the M&E unit and the Program Directorate created considerable dissatisfaction with the arrangements.

A reorganization plan was evolved in mid-1986. The M&E Unit was placed under the charge of a higher-level Chief Engineer, who reported directly to the Chairman, BWDB. The Chief Engineer is now assisted by two directors, one in charge of monitoring and the other responsible for evaluation. All data relating to M&E has now been fed into the controlling ministry's computer. The M&E Unit will, however, have its own system analyst and programmer.

The unit is responsible for maintaining liaison with all central monitoring agencies like IMED, Planning Commission, ERD, donors, and other concerned ministries and agencies. It convenes review meetings and follows up decisions taken at these meetings. It also collects field reports and submits weekly, monthly, quarterly, and annual reports on both physical and financial progress to its controlling ministry and to IMED. The Directorate of Evaluation provides required information for consolidated annual reports regarding completed projects, which includes benefits derived and assessments of their socioeconomic impact. It also evaluates actual and potential socioeconomic effects of ongoing BWDB projects to determine the need for any modification in project design or scope.

Training

Since a shortage of adequately trained manpower was recognized as a major constraint in improving project and program planning, implementation, monitoring, and evaluation throughout the entire development management network, the Bangladesh government in 1981 established the Academy for Planning and Development (APD). It has been assigned ambitious and comprehensive responsibilities, including (a) preservice training of new entrants in the Economic and Trade and other cadres of the civil service; (b) in-service training of officers of the Planning Commission and all other development ministries and agencies at different levels; (c) provision of consultancy services to the government in pre-

40. See Hossain (1987).

investment feasibility studies and project formulation, appraisal, monitoring, and evaluation; (d) dissemination of knowledge through documentation services, publications, and workshops; and (e) research and evaluation studies on various aspects of planning and development.

Courses offered so far relate to (a) Project Preparation and Processing, (b) Project Management (both courses are in-service and of relatively short duration), and (c) Basic Economics and Development Planning (for new entrants and of longer duration).

While there are no specialized courses focused exclusively on M&E, there is a major component of the courses for entry level officials on project planning, monitoring, and evaluation. The courses focus mainly on the administrative procedures for completing the various pro formas (referred to earlier in this chapter). However, most of those who attend these courses are from jobs having little to do with monitoring or evaluation. Several practical difficulties arise in liberating officials engaged in this task for courses designed to upgrade their capabilities, since the units and organizations are already understaffed and are unable to spare them.

There are other training institutions involved in training of government officials at all levels who are marginally involved in M&E training. The Bangladesh Management Development Centre (BMDC) established in 1961 and working under the Ministry of Industries offers a number of courses in various areas but M&E figures in only a few courses as a component. Other training institutions, which include the Public Administration Training Centre (PATC),⁴¹ Bangladesh Institute of Development Studies (BIDS), Bangladesh Academy of Rural Development (BARD), and a number of sectoral and departmental training establishments seem to have neglected the need to produce a cadre of specialists in general M&E of sectoral projects and programs. The Bangladesh Water Development Board is one of the few line agencies initiating regular training programs on M&E.

Conclusions

Information gathering may seem simple, but experience shows that it is easy to fall for the temptation to collect too much—and often unnecessary—information. Project managers may be required to fill too many pro formas, and, worse, there are too few people to read the reports, and analyze and identify bottlenecks for quick corrective action. It is not surprising that those engaged in development management and implementation quickly lose faith in the ability of those collecting information, as well as in the exercise itself.

The scope of monitoring is another issue emerging from the Bangladesh experience. Should the task be limited to checking physical progress or financial utilization? Should it be possible, and feasible, also to include project sustainability, maintenance procedures, operational efficiency, and short- and long-run impact on the intended beneficiaries?

The answers to these questions may ultimately depend on the answer to another, more fundamental question: Monitoring for whom? The parties interested are many: the Planning Commission, the donors, the Finance Ministry, and the project managers and their immediate supervisors.⁴² The system, it is hoped, will evolve in such a way that it is capable of meeting the varied demands of all the concerned agencies and yet succeed in rationalizing collection of information from the field and allowing field managers to save on the time required for preparing an unending flow of reports.

41. In July 1987 PATC conducted a seminar with EDI on "Project Sustainability." This discussed in considerable detail the methodology for evaluating operations and maintenance and the continued delivery of intended benefits.

42. At the time of the seminar, the role of nongovernmental organizations in monitoring public sector projects had not become an issue. Since then, there has been considerable discussion on the role of nongovernmental organizations in all phases of project planning, implementation, and evaluation.

3

INDIA

Planning and Implementation

Over time, India's planning and development structure has achieved a considerable degree of stability. The National Planning Commission is responsible for determining overall national priorities and for preparing short- and medium-term plans. Under its federal structure of government, however, state governments also play an active role in the planning process; thus, the entire planning infrastructure functions on the basis of continuous coordination and consultation between central and state governments in identifying, preparing, and implementing development projects in which public undertakings, line ministries and departments, and a number of field agencies also play their respective roles.

Public sector investments under the Five-Year Plan are divided into three categories (see Table 3.1). Larger central government projects are sponsored by line ministries and agencies,

Table 3.1 Funding, Execution, and Monitoring and Evaluation of Public Investment Programs in India

<i>Kind of Project</i>	<i>Funding and Execution</i>	<i>Monitoring and Evaluation Responsibilities</i>
Centrally managed	Funded and executed by the central government and its various departments and central public undertakings (225 in 1986), and other field agencies such as telecommunications and railways	<ul style="list-style-type: none"> • MOPI for major projects, PM's 20 Point Program, and Public Enterprises • Management Information Division and Line Divisions of the Planning Commission
Centrally sponsored	Fully or partially funded by the central government, with funds given in the form of grants or loans to state governments, who are responsible for project execution. Many of these projects are in social sectors such as health and education	<ul style="list-style-type: none"> • Monitoring cells in sponsored administrative ministries • Monitoring units of Project Implementation Agencies • Monitoring units of public Enterprises
State sponsored	Funded and executed by the state government through its various departments, state enterprises, and field agencies. About two thirds of these investments are in power and irrigation	<ul style="list-style-type: none"> • Monitoring units of State Planning Commissions' • Monitoring units in some State departments • Monitoring units in some district planning cells.

Source: Adapted from Kohli (1987).

Note: See Editorial Note for principal sources used in preparing this chapter.

and approved by the Planning Commission, the interministerial Project Investment Board, and the Cabinet Committee. Projects costing less than Rs. 20 million⁴³ are approved by the concerned ministry itself.

The sponsoring agencies are normally responsible for project implementation but large investment projects in such sectors as industry, minerals, power, irrigation, transport, and communications are executed by the central government or other central agencies. Development programs in agriculture, rural development, health, education, and social welfare are more decentralized.

Collection of statistics is assigned to the Central Statistical Organization under the Ministry of Planning, which has its own regional offices for this purpose. The Population Census is carried out by the Registrar General's Office. State governments have their own statistical bureaus under their planning departments. Data collection and processing have considerably improved in recent years in both scope and quality, especially in national accounts, prices, money supply, household saving and consumption, employment, agriculture, investment and assets formation, and population.

Evolution of the M&E System

At the central government level, the Indian Planning Commission created a Management Division in 1964 in order to undertake implementation monitoring activities. This was later renamed the Monitoring and Information Division (MID). By the mid-1970s the work of this division was supplemented by monitoring cells in all key divisions of the Planning Commission. They are principally concerned with maintaining liaison with the line ministries and reviewing ongoing projects. The MID is involved in developing monitoring systems at various levels, coordinating the work of various monitoring cells within the Planning Commission, and developing a computerized data bank at both central and state levels. MID has also, in collaboration with the Finance Ministry, developed a system of completion reports for all projects of public sector undertakings under the central government costing over Rs. 50 million.

The creation of the Ministry of Program Implementation (MOPI) in 1985 was an important development in the evolution of the monitoring system. It is responsible for performance evaluation of the infrastructure sector, monitoring all projects costing over Rs. 200 million, M&E of the Prime Minister's 20-point poverty eradication program, and performance auditing of selected public enterprises. The ministry has a team of engineers, professional managers, economists, and administrators for performing these diverse tasks. MOPI also cooperates with the Planning Commission and concerned ministries to establish physical targets for the nine industrial infrastructure sectors at the beginning of each year.⁴⁴

All central ministries involved in development work also have their own monitoring cells, mostly engaged in collecting and processing data for their own ministry. Larger projects and most of the aided programs also have similar units.

The system described above operates at the central level, although similar arrangements also exist at the state level. All state planning departments have separate monitoring units responsible for collecting, consolidating, and analyzing information on the progress of state-level projects. District-level planning cells have also been set up.

State power and irrigation projects, which account for two thirds of state investments, are monitored both by the states through their respective departments and by the central government through the Central Electricity Authority or the Central Water Commission and the Planning Commission.

43. In December 1987, Rs. 12 = US\$1.

44. See "Towards Speedy and Effective Programme Implementation. Report 1985-86," Ministry of Programme Implementation, Government of India.

The Bureau of Public Enterprises (BPE) located in the Ministry of Finance is responsible for monitoring public enterprise projects in association with other monitoring agencies (for example, MOPI for larger projects). Many of the states also have their own BPEs.

The evaluation function has also been accorded due recognition and importance, since the early 1950s. The Planning Commission established the Program Evaluation Organization (PEO) (well before monitoring agencies were created) for ex-post evaluation of projects. A small organization—with only seven or eight professionals—it has confined itself to evaluating projects with wider geographical and population coverage, especially rural development programs. The studies undertaken by them consist of (a) impact assessment and (b) determining successes or failures in project formulation and during implementation.

Methodology of M&E

Responsibility for M&E varies according to the way in which the project is funded and executed (see Table 3.1). The table also summarizes the principal responsibilities for M&E for each kind of project.

For projects which are centrally funded and executed, operational monitoring will usually be the direct responsibility of the monitoring cell of the administrative ministry or public enterprise responsible for project execution. Monitoring will usually be coordinated with the Planning Commission through the Monitoring and Information Division (MID) and the appropriate line division. For mega-projects (over Rs. 200 million), for the Prime Minister's 20-Point Program, and for major national public enterprises, the Ministry of Program Implementation will also be involved. A distinction is made between economic and infrastructure projects (power, irrigation, transport, industry), which have clearly-defined physical stages, and social programs such as health, education, and family welfare.

Monitoring of economic and infrastructure projects is based on a review of physical progress with reference to a predetermined implementation schedule. For major projects, PERT or CPM schedules (often computer-based) are normally used. The quantity and quality of progress is assessed at predetermined milestones in the project's development. Financial progress is compared against budgeted expenditures on a monthly, quarterly and yearly basis.

M&E procedures are different for social programs (health, family welfare, etc.), and the focus is often on the coverage of the programs and the numbers of families who benefit from them. Program impacts are estimated either through qualitative studies (interviews with key informants, direct observation, etc.) or through simple experimental designs in which affected communities are compared with controls which have not received the services.⁴⁵

The periodicity of reporting varies with the size and nature of the project. Projects in category A (costing over Rs. 1 billion) are monitored on a monthly basis by the highest policymaking bodies; category B projects (costing between Rs. 200 million and Rs. 1 billion) by the concerned government ministries/departments and on a quarterly basis; and category C projects (costing less than Rs. 200 million) by the concerned project authorities on an annual basis.

Since the MOPI deals with high-priority programs, it has developed a fairly comprehensive system for identifying problems, removing bottlenecks, and anticipating shortfalls. At the beginning of the year, MOPI obtains sector resource requirements for target achievement, examines them, and seeks to ensure that there are no supply shortages or delays in delivery schedules. It has also developed a system of monthly "Flash Reports" signaling actual or potential difficulties. Copies of this report are distributed to the Cabinet and all concerned agencies. The Flash Reports are followed by concerned ministries' Review

45. Typical examples of impact evaluations conducted by the Programme Evaluation Organization include the "Evaluation of Rural Electrification Programme" (1982) which focused on the growth and coverage of the program, and the "Employment Guarantee Scheme of Maharashtra" (1980), which discussed the impact on employment, income, and on the creation of assets.

Reports indicating actions required to solve the problems. The Review Reports are consolidated in the form of a Capsule Report, which is sent by the 20th of each month to the Prime Minister. This procedure is used for projects costing over Rs. 1,000 million, while a system of Quarterly Status Reports is used for smaller projects.

In the case of the Prime Minister's 20-Point Program⁴⁶ (and the updated 1986 Program), the principal objective is the eradication of poverty with a target of helping 220 million people rise above the poverty line during 1984-2000. Seventeen of the 20 components (Attack on Rural poverty, Rainfed Agriculture, Better Use of Irrigation, Two Child Norms, etc.) are implemented through state governments, and only three components are implemented through the national government. The monitoring system focuses mainly on achieving the physical targets for each component with performance being evaluated in terms of the percentage achievement of the physical objective. In consultation with state governments, an assessment is then made, of the constraints affecting the achievement of these physical targets, followed by recommendations on how to overcome the constraints. Emphasis is placed on monitoring program implementation, although estimates are also made of the impacts of the program on poverty. The monitoring system apparently does not yet address issues relating to the distribution of benefits or the difficult methodological problems of measuring household income and welfare.

Thus, MOPI has been able to include in its reporting system both a "performance check" and a "diagnostic check." The states are ranked "A", "B", "C", and "D" according to their performance in the Prime Minister's program.

When projects are executed by state governments, monitoring will also be conducted by the state through the monitoring units of the State Planning Commission or some state departments, or a special monitoring unit set up within the project implementation unit. When the project has received funding from the national government (or from a foreign donor through the national government), the Planning Commission and the administrative ministry will normally be involved in the M&E studies.

Review of the M&E System

In a country as large as India with an extensive program of social and economic development, it is only logical that the network of planning, implementation, monitoring, and evaluation agencies would be complex because of overlapping lines of authority, responsibilities, and accountability. The country has over 3,000 projects under, or sponsored by, the central government along with 6,000-7,000 state-level projects. In addition, there are 225 public enterprises under the central government and many more at the state level. To their credit, Indian policymakers were able to perceive the importance of M&E functions at an early stage and get the system to start building up almost immediately after the establishment of the central and state planning agencies in the early 1950s. The government has therefore had adequate time to streamline work processes, specifying lines of coordination and division of responsibilities as clearly as possible in such a complex and extensive network.

Thus, India has the advantage of monitoring agencies located throughout the entire development administration system. With the Programme Evaluation Organization and the Management Information Division in the Planning Commission, BPE in the Finance Ministry, and each state planning department having its own M&E cells, the monitoring process is already well integrated into the governmental framework. However, MOPI, working under its own Minister, and reporting directly to the Prime Minister stands out as a separate specialized ministry. But this is justified by the necessity of taking special care of "mega" projects and high-priority programs being implemented in different sectors by different organizations. The advantage of being close to the Prime Minister's office enjoyed by MOPI is further enhanced by the fact that MOPI staff are drawn from within the bureaucracy,

46. The methodology is described in Basu (1988).

thus making communication with other ministries easier and ensuring coordination with the large number of agencies it has to deal with.

There has been some success in extending the scope of monitoring to include not only assessment of physical and financial progress, but also qualitative aspects in some of the larger and critically important projects and programs. Techniques such as PERT and CPM are also being used on a larger scale.

As yet, the government is not complacent regarding the difficulties yet to be removed or the challenges emanating from the process of change and development. The system laid down by MOPI has not been able to prevent shortfalls and bottlenecks. Out of 108 large projects (costing between Rs. 1,000 million and Rs. 10,000 million), 93 have so far been placed on the Flash Report system, and 45 of them have reported delays since January 1985 (when Flash Reports were introduced), along with another 25 projects since April 1986, resulting in a cost escalation of 74.9 percent so far.

The reasons for continued project delays, despite streamlining organizations and processes, include external factors such as legal problems concerning land acquisition, bottlenecks in supply of inputs, procedural delays in obtaining licenses and import clearances, labor disputes and delays in release of funds as well as internal problems such as poor project preparation, frequent changes in project design and scope, complications in tendering and contracting systems, and lack of trained personnel.

There is some evidence of organizational tensions due to resistance by implementation agencies to the discipline and accountability with which the M&E system is equated. Given the size of the country, its multi-level planning and implementation systems and the complexities of its M&E procedures, coordination will inevitably present problems. Effective coordination between the monitoring of mega projects and the 20-Point Program by MOPI have not yet been adequately coordinated with the planning and overall monitoring functions of the Planning Commission. MOPI's primary focus on industrial infrastructure projects also raises questions as to whether other kinds of projects receive adequate attention.

Coordination is also a problem for complex projects and programs involving different ministries and agencies. Monitoring data do not always reach all of the agencies who require them when they need them. This is a recurrent problem for social sector programs, such as education, health, and rural development, which are the concurrent responsibility of the central and state governments.

Efforts are under way to simplify the information flow and to reduce the number of decision-making levels. This would permit monitoring reports to focus on key issues rather than on masses of detail. It is hoped that the creation of a national computer network (NICNET) will facilitate this process by speeding up and standardizing information flows.

While considerable progress has been made in developing procedures for monitoring project implementation, much less progress has been made in monitoring project sustainability and in evaluating project impacts. The Program Evaluation Organization, which is responsible for conducting impact evaluations, has less than ten professional staff and can therefore only conduct very few studies—most of which focus on the coverage of services rather than on their impacts. The main pressures to improve monitoring have come from national and international organizations concerned with project implementation, loan disbursements, and cost control. As in all other countries in the region, there is no comparable pressure to evaluate whether investments actually achieve their intended impacts, nor whether the programs are sustainable over time.

Illustration of M&E at the Sectoral Level: The Training and Visit System of Agricultural Extension⁴⁷

The Training and Visit (T&V) system of agricultural extension introduced in India with World Bank assistance amply illustrates both the strengths and difficulties faced by M&E

47. See Sadamate (1987).

agencies in a sector where projects have wide but diffuse impact on a large and important segment of the population spread over vast areas.

The T&V system is already in operation in 14 states, with 3 more likely to introduce it shortly. Nine states have already completed the first stage with some already well into the second stage. The focus of the program is on (a) transfer of technology to the farmer, (b) strengthening links between research and extension, and (c) reorganizing states' agricultural extension efforts.

All T&V projects, have M&E units, which are independent of the implementing agencies. In some states, the units report directly to the secretary of the state agriculture department, while in others, they report to the director (agriculture). Both the donor agency and the government are keen on maintaining the functional independence of these units.

Monitoring is carried out for both the winter and summer crops through general surveys, special M&E surveys, and special studies designed to check the frequency of contacts of the extension staff with the farmers and acquisition of new knowledge by the farmers.

The monitoring part of the unit assesses data collection efforts, extension activities, feedback from the farmers, and physical facilities for project implementation. The evaluation staff is responsible for assessing the impact of extension programs and overall results of crop yields, incomes of the farmers, and acquisition of improved agricultural technology. Recommendations are also made for achieving better results and better use of human and financial resources.

Despite such sustained efforts aiming at ensuring the success of the program, the performance in different states is mixed, ranging from "very good" to "poor." The reasons include the following:

- Too few persons trained in M&E are available in all states, and arrangements for training the available personnel do not exist everywhere.
- Collection and availability of data required for M&E (e.g., visit frequency, assessment of upgrading of farmers' knowledge, crop yields, use of inputs, etc.) are not of uniform quality, thereby hindering the accuracy of monitoring and evaluating results.
- Implementing authorities tend to see M&E units as fault-finding machines rather than as co-workers. Coordination and cooperation, therefore, are often lacking.
- Many states, have not yet fully recognized the full significance of M&E reports as management tools and guides for corrective action.

Training

India's vast network of training establishments consists of 31 national-level institutions catering to central and state governments, public enterprises, and the private sector; 27 central government training institutes; 20 institutions for training state government personnel; and 24 institutes for public enterprises and other specialized areas.

India has a separate Plan Training Scheme introduced in the late 1970s, under which a number of training courses on different aspects of planning and project cycle, are dealt with in detail. According to the report of an Informal Working Group for the Sixth Five-Year Plan (1980-85), project implementation, and M&E courses were specially organized for agriculture, industry, irrigation, power, health, and public works. These programs were distributed among 20 management and administrative training institutes all over the country.

In 1980 about 60,000 officials engaged in project and program implementation were yet to be trained. These officials included those belonging to the central government, state government, and public corporations at senior, supervisory, and junior levels. Under the Plan Training Scheme, between 1976 and 1980, a total of 4,872 officials participated in 192 training courses, while 14,414 officials participated in 573 courses between 1980 and 1985.

The Sixth Plan stressed the need to train district- and project-level staff in design, field work, tabulation, analysis, interpretation, and reporting. For officials at the policymaking

level, the Programme Evaluation Organization organized a number of regional workshops on evaluation of programs, as well as training programs in project evaluation techniques for middle-level functionaries.

In recent years, special attention has been paid to M&E of anti-poverty programs, and on enhancing capability in information systems and data processing for planning and implementation. There is still a need for many more courses on the operational issues of design and execution of M&E, such as sample design, interviewing, and data analysis.

The Seventh Plan (1985-90) has stressed decentralization of training for effective implementation of anti-poverty programs and ensuring balanced regional development. Training programs in the first phase will be taken to district level, and later to the block level, so that government personnel actually implementing small up-lift schemes, and who are in direct contact with the public are also provided an opportunity to upgrade their skills.

Thus, India has a well-organized system of training in planning, but in view of the vastness of the development effort and the large number of people performing diverse functions, often of highly technical and specialized nature, the challenge of M&E may require an even larger effort.

Conclusions

India's long experience in development planning and an early start in establishing M&E agencies has enabled her to create an organizational structure and develop a large cadre of experienced professionals, monitors and evaluators with expertise within a stable and reasonably workable hierarchical framework.

Since the system at the central and state levels is fairly well established, India is now focusing attention on system development at district and field levels. With the establishment of MOPI, program monitoring has also received greater attention than in the past and as the coverage is extended to include program evaluation this will enable the government to assess the entire development management effort from a broader perspective.

The need for a computerized data bank to serve the multifarious needs of planned development is widely recognized in India and the system may be in full operation in the near future. But the main emphasis seems to be on storage, processing, retrieval, and communication of data. While computerization may be the fastest means of communicating information within the development agencies network, its real utility will depend upon how effectively the computer-processed information is used for quick diagnosis of problems and bottlenecks, and for speedy management decisions for corrective action. The basic data is collected at local levels by field agencies and functionaries whose expertise in data collection and concern for accuracy needs to be improved through intensive training. Computerization may also play a role in reducing unnecessary paperwork and relieving project managers from the pressures of overreporting information which is of little use to any of the supervisory or monitoring agencies. Much attention and concern are appropriately shown regarding the progress made by "mega" and large-sized projects, where huge funds are invested and which are critical to achieving plan goals. But the very large number of small- and medium-sized projects, where the aggregate amounts involved may be enormous, may also be able to show better fund utilization and fewer cost and time overruns if at least mid-year reviews are held to assess their progress and to identify bottlenecks by appropriately high-level authorities.

In the social sectors, particularly beneficiary-oriented programs, monitoring exercises can become more meaningful and effective if ways are found to increase public participation in their scrutiny and modification. This is already being discussed at various levels, and the strong local-level organizations that India has been able to develop will facilitate such public participation. Finally, for projects of a highly technical nature, where monitoring authorities may not have enough expertise, consultants for both M&E can be useful.

4

NEPAL

Planning and Implementation

Institutions relating to modern administration were set up in Nepal only in the early 1950s. The planning process was established in 1956 with the creation of the National Planning Commission (NPC) as the highest planning body charged with responsibility for framing five-year plans. Thus, both administrative and planning systems are still very new and lack established lines of responsibilities and authority, and procedures and experienced administrators and planners.

Table 4.1 summarizes procedures for plan preparation, project design, and implementation. Most projects are formulated by the development network consisting of 20 ministries with their 47 departments and 52 public corporations, and appraised and approved by the NPC. Implementation is the responsibility of the respective ministries. In the case of some projects of national priority, project preparation is done by the NPC. For foreign-aided projects, donor agencies and the NPC are involved not only in appraisal and approval, but at times in identification and formulation. At present there are about 1,300 ongoing development projects, of which about 400 are donor-assisted.

There are planning cells in all ministries and other agencies. Recently a number of structural and procedural changes were introduced in the planning structure. While the NPC prepares the five-year plan, the Annual Development Program will now be made by sectoral ministries with the help of funds released by the Finance Ministry. Nepal has a strong Finance Ministry which, in addition to its usual functions, is also responsible for resource allocation and aid coordination.

The highest policymaking body is the National Development Council, of which the King is Chairman. Collection of statistics is carried out by the Central Bureau of Statistics with the help of its various regional and local offices.

Planning and monitoring procedures are likely to be significantly affected by the Decentralization Act of 1986, which empowered local-level organizations [panchayats] to prepare, execute, and review local-level projects.⁴⁸ Periodic plans are prepared at the village, town, and district panchayat levels with resources being mobilized from the local and national levels. Progress should be reviewed every six months by representatives of local communities and involved project agencies. The act also provides for an inspection committee. Due to delays in implementing the new legislation, it is too early to know how it will affect planning and monitoring.

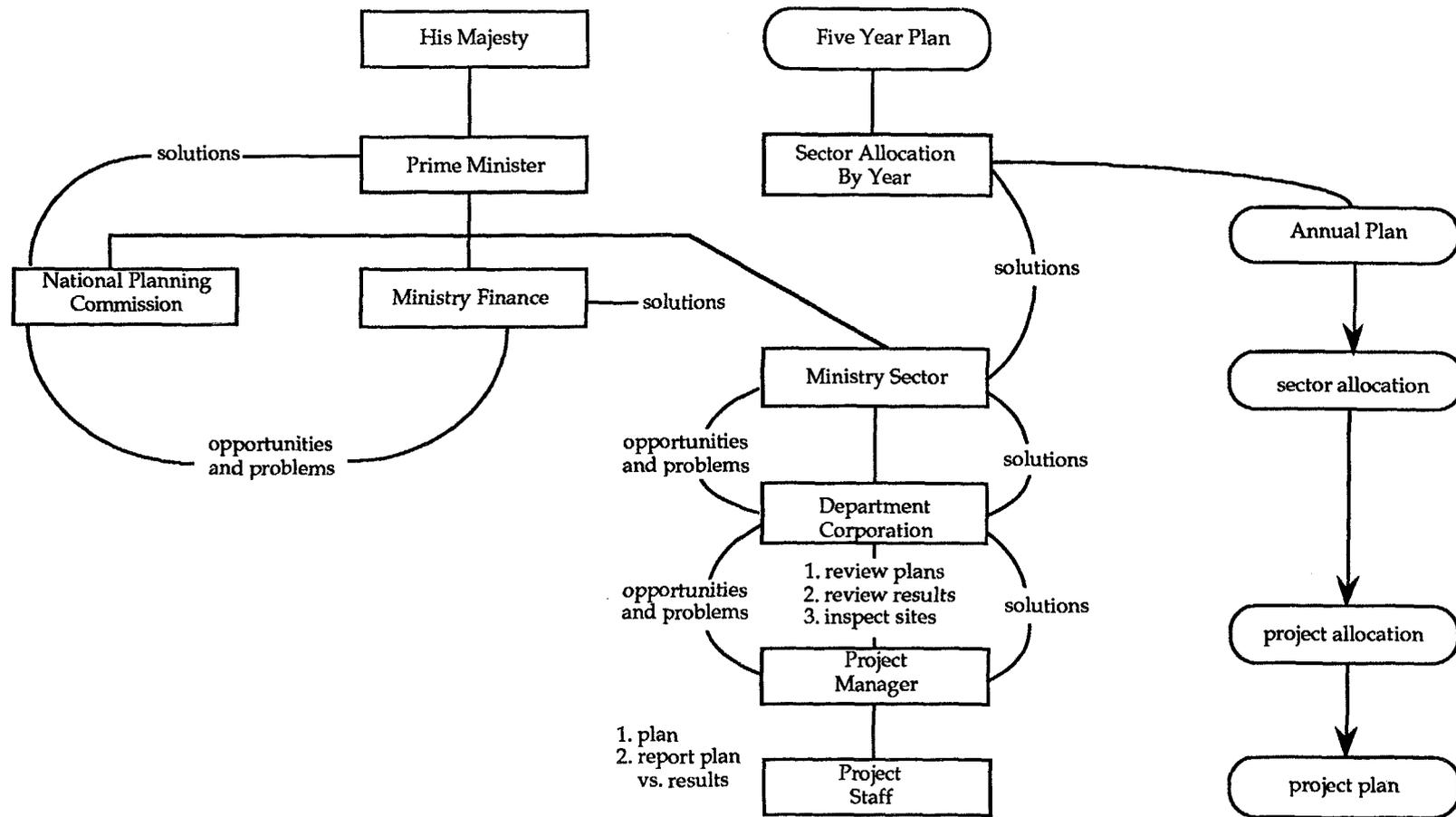
Evolution of the M&E System

At present, regional offices of the NPC perform monitoring functions for all kinds of projects in association with line ministries, departments, and corporations. Project managers send quarterly progress reports to their controlling ministry where they are consolidated and sent to NPC. Thus NPC receives information about project implementation from its own regional staff and the line ministry. There are trimestral review meetings under the

Note: See Editorial Note for the principal sources used in this chapter.

48. Cited in Rimal and Sharma (1987).

Table 4.1 Procedures for Plan Preparation, Project Design and Implementation in Nepal



Source: Gauri N. Rimal and Mohen Raj Sharma "Monitoring and Evaluation of Development Projects in Nepal" (1987)

chairmanship of the Prime Minister at the NPC, where both line agencies and the Office of Evaluation and Review of the NPC, responsible for supervising and coordinating all monitoring activities, present their analyses of the implementation process.

The monitoring system has been in continuous reorganization since 1984-85 when the Office of Evaluation and Review of the NPC was restricted to monitoring only 55 projects of national importance while the monitoring of other projects was entrusted to a newly created Program Budgeting and Monitoring (PBM) Cell established with the help of the World Bank and the UNDP in the Ministry of Finance in 1984-85. Thirteen projects belonging to different ministries will be monitored by PBM on an experimental basis under a new system called Program Budgeting and Project Monitoring (PBPM).

In April 1987, there was further reorganization in the NPC. The Office of Evaluation and Review was abolished, and the Programming Division was asked to carry out these functions through its various subject subsectors.

While the PBM cell has been working on preparing a comprehensive format for monitoring of the entire project portfolio of the government, for the time being it is concentrating on (a) "intensive" monitoring of 13 projects in priority sectors to link physical outputs with financial inputs, and (b) financial monitoring of 78 capital-intensive projects by furnishing monthly reports on funds utilization.

A few line ministries have monitoring cells. To date, only the Ministry of Agriculture has been able to carry out this function reasonably well through the Agricultural Projects Services Centre (APROSC)—an autonomous research organization with the Secretary of Agriculture as Chairman of its Board of Directors. Besides undertaking research in agriculture and rural development, APROSC provides technical guidance to implementation agencies in designing M&E systems and carries out ex-post evaluation of projects in agriculture and related fields at the request of the government.

Donor agencies also monitor aided projects through consultants, supervision missions, and the experts in their local resident missions. Larger projects and regional and zonal offices of various departments also have internal procedures for checking progress and reporting.

Royal directives relating to development activities and programs are monitored by the Cabinet Secretariat with help from NPC. Interministerial committees are formed when the directives refer to issues concerning more than one ministry. The reports thus prepared are reviewed by the NDC. Since 1982, the Cabinet Secretariat has also been sending inspection teams to projects to get firsthand reports.

In 1976 the NDC recommended three different kinds of evaluation: (a) implementation and monitoring evaluation; (b) achievement evaluation; and (c) impact evaluation. However, with the possible exception of the agricultural sector, only very limited progress has been made so far .

Methodology of M&E

Table 4.2 identifies five types of projects, each of which employs somewhat different monitoring procedures. First, a total of approximately 55 national priority projects have been identified, which involve major investments in priority sectors. The National Planning Commission's monitoring system is based on input/output targets, work schedule monitoring and cost analysis. Some of these projects are also covered by the Ministry of Finance pilot Program Budgeting and Intensive Monitoring (PBIM) program. This follows a somewhat similar methodology to that used by NPC, but with more detailed cost analysis.

Second, projects established by Royal Directive are monitored by the Cabinet Secretariat in coordination with the National Development Committee. No uniform methodology has been developed, but in many cases projects are visited by inspection teams from the appropriate ministries who then report back to the Cabinet Secretariat.

Third, for foreign-aided projects, donors frequently introduce their own monitoring systems and reporting requirements. In some cases the implementing ministry provides the information while in other cases consultants are contracted.

Fourth, some line ministries, such as the Ministries of Agriculture and Water, have specialized monitoring cells, whereas in other cases monitoring will be the responsibility of the planning cell. In either case, quarterly progress reports will be prepared and reviewed by the ministry at the departmental or national levels. The Ministry of Agriculture has the most comprehensive M&E systems, since it can use the services of the Agricultural Project Services Corporation (APROSC) as well as its own M&E Unit. The Ministry of Agriculture has also conducted a number of impact evaluations.

Table 4.2 Responsibilities and Procedures for Project M&E in Nepal

<i>Project Type</i>	<i>Responsibility</i>	<i>Procedures</i>
National priority	National Plan Committee (NPC) Ministry of Finance (MOF)	<ul style="list-style-type: none"> • Input/Output targets • Work schedule monitoring • Cost analysis • Program Budgeting and Intensive Monitoring (PBIM) • Developing input/output and cost control analysis on pilot basis with selected projects
Royal Directives	Cabinet Secretariat National Development Council	<ul style="list-style-type: none"> • Inspection teams
Foreign-aided projects	Donors Line ministry	<ul style="list-style-type: none"> • Systems developed by donors or through consultants (see below)
Line ministry-administered projects	Line ministry NPC	<ul style="list-style-type: none"> • Some ministries have specialized monitoring cells (Agriculture and water) while in other cases this is the responsibility of the planning cell • Quarterly Progress reports prepared at project level indicating achievement of targets and explaining reasons for shortfalls or problems • All projects reviewed at the departmental and ministerial level • Review of Annual Reports submitted by each ministry
Decentralized projects	Panchayat	<ul style="list-style-type: none"> • Project inspection teams and six monthly review meetings with representatives of local organizations and involved ministries

Source: Rimal and Sharma (1987).

Fifth, decentralized projects are planned and monitored through the local panchayats. Monitoring is conducted through six monthly progress review meetings attended by local organizations and representatives of departmental and national organizations, and through project inspections. The decentralized development procedures are still very new, and no standardized monitoring procedures have been established.

Review of the M&E System

The weaknesses of the existing M&E arrangements as well as their constraints and bottlenecks are increasingly recognized. Solutions should be easier to find with increasing experience in planning, implementation, and policy formulation for development. The problems facing M&E are partly institutional and organizational. In an administrative framework which is still evolving and trying to find equilibrium, lines of responsibilities for planning, implementation, supervision, monitoring, and financing are still unclear. Not surprisingly, therefore, a proper sequencing of budgeting, programming, and implementation processing has not yet even been established.

One of the institutional problems still to be resolved is the division of responsibility for M&E between the Ministry of Finance and NPC. Presently there seem to be broad areas of overlap with both agencies developing similar systems.

While a fairly detailed hierarchical mechanism for project monitoring is in place (even though progress reports do not adequately describe problems and constraints of a wider or long-term nature), institutional arrangements for identification of problems, remedial action, and follow-up all need improvement. This may also explain why monitoring reports do not cover a period longer than a year and are not properly linked to the whole project cycle and its goals.

Data collected at national and regional levels is also limited in scope and lacking in quality. This may be responsible for the preparation of projects and programs with inaccurate data regarding costs, benefits, availability of inputs and manpower, and work scheduling. Project delays and cost overruns are thus built into the planning framework.

A serious lack of sufficiently trained and motivated staff is responsible for problems of poor project execution, nonobservance of the required frequency of reporting and inspection, and uncertainties in completing work on schedule. This is further complicated by procedural delays in procurement, tendering, staff recruitment, and land acquisition.

Until the reorganization process in Nepal is completed and areas of responsibilities and lines of coordination are defined more precisely, it is difficult to foresee the final location of the monitoring functions, which are now mainly with the Ministry of Finance, with the NPC and the Cabinet Secretariat handling special situations and projects. Irrespective of the ultimate structure and distribution of responsibilities, it is difficult to visualize separation of the planning process from M&E.

As responsibilities are more clearly defined and organizational procedures established, establishing the credibility and utility of project monitoring will be a major test. At present there is very little demand for monitoring data outside of NPC and the Ministry of Finance, and line ministries tend either to be suspicious of the motives and uses of project monitoring or to doubt its practical utility. In either case, their reluctance to cooperate negatively affects the quality and timeliness of the data provided.

Illustration of Monitoring at the Sectoral Level: Agriculture ⁴⁹

Agriculture is a top-priority sector in development programs in Nepal and as such, special attention has been paid to improving its project and program implementation. In the Annual Development Program of 1986-87, 82 of the 188 development projects in the agricultural sector were foreign aided. Monitoring consists of a three-tier process:

- (a) Assessment at the project level by the manager and submission of reports to the concerned department/corporation. Some foreign-aided projects have also established separate M&E units at the project level.
- (b) Compilation of all project monitoring reports from the department/corporation by the M&E Cell and by Planning Cells where M&E Cells do not exist.

49. See Shumsher and Rana (1987).

- (c) compilation of all departmental/corporation reports at the ministry level by the Evaluation and Project Analysis Division headed by a Joint Secretary and assisted by economists and technical assistants. At the national level reviews are held by the NPC and the Ministry of Finance.

Project-monitoring reports are submitted monthly, quarterly, and annually; the causes of any shortfalls are expected to be explained in these reports. While compiling them, the concerned department is expected to present a comprehensive review on the entire implementation situation, with both a diagnostic analysis and suggested remedies. At the ministry level, these reports are first scrutinized by a ministry-level review committee headed by the Secretary, then finally considered by another review committee under the chairmanship of the Minister. The NPC is represented on this committee. The Ministry of Agriculture has also instituted a system of project inspections at least four times a year, for which 36 supervisors were appointed in 1984-85.

Fruits and Livestock are regarded as priority subsectors; monitoring reports on projects in these subsectors are sent every month to the Cabinet Secretariat, in addition to the usual reports to supervising departments and the ministry. These reports are reviewed every two months by the ministry and the NPC, and every six months by the Prime Minister. The King also regularly visits these projects and issues Royal Directives. Each region has a special development committee to monitor implementation of these directives.

Each department/corporation also has an impact assessment system, particularly with regard to changes in farmers' incomes, crop yields and employment.

The monitoring system in agriculture has been strengthened further with assistance from Winrock International Human Resource Division since 1984-85. Improving manpower capabilities and setting up a data processing system are also part of this effort. A National Review Room has been set up to keep track of the pace of implementation. Local and foreign consultants have also been engaged to help to improve the effectiveness of the M&E arrangements.

Training

The national training institution, the Nepal Administrative Staff College, was established in 1982 for training officials at entry and in-service levels. It offers a variety of courses for all levels of government functionaries, including courses in Basic Administrative Training, Development Administration and Management Training, Project Analysis and Management, and Chief District Officer Training. Some of the courses include modules on M&E. For example, the Project Analysis and Management course (lasting 5 weeks) has "problems of project planning and management" in the course outline and the Chief District Officer course (lasting 8 weeks) deals with M&E in its module on Development Administration. But there are no short courses focusing on M&E. As already mentioned, the Ministry of Agriculture has its own training arrangements under APROSC in this field.

Conclusions

While Nepal is still in the stage of institution-building in the field of development management, an organizational framework, laying down basic processes and locating responsibilities and systems of accountability has now been established. The next and more difficult stage is making the institutions work and producing results by improving motivation and capabilities of persons responsible for preparation and implementation of development programs. Complaints regarding projects not functioning in accordance with plan goals, progress reports not being received on time, failures in maintaining the frequency of project inspections and lack of adequate and reasonably reliable data are the usual symptoms of an evolving system gearing itself up to implement the ambitious development programs.

Intensive training in development management is important, since the lack of adequate skills and techniques is primarily responsible for the indifference, failure to observe

schedules, and delays in preparing plans for timely corrective action. Since a number of development projects are financed through aid, the donor agencies' cooperation can also be sought. Nepal can also benefit from the experience in this area accumulated in other South Asian countries.

Special attention is beginning to be paid to impact assessment in agricultural projects. Experience gained in this area can be extended to other sectors. Similarly, one can reasonably expect that once a viable, effective monitoring system is in place and government functionaries acquire requisite experience and skill, the evaluation system will be developed so that the experiences gained and lessons learned from completed projects make their due contribution to further strengthening the planning and implementation process.

At present, while some changes are taking place in responsibilities of various agencies, particularly the NPC and Ministry of Finance, the Ministry of Finance seems to be assuming a greater role in development management than in many other developing countries. The outlook and knowledge of Ministry of Finance personnel need to be broadened to fulfill the widened scope of their activities.

Moreover, since it is not possible to isolate plan formulation from implementation and mobilization of financial resources, a system of close and continuous coordination between the NPC and the Ministry of Finance will be an essential requirement for successful implementation of development programs, and the emergence of a network of development institutions and processes of preparation, implementation and monitoring of plans and programs. The government is already working in this direction through the creation of the Financial and Economic Committee of the Secretaries (FECS) headed by the Finance Secretary. If problems are not resolved at this level, another committee, the Trouble Shooting Committee (TSC), headed by the Chief Secretary, may deliberate on the issues and report to the Prime Minister. The success of these arrangements will depend on the speed with which problems identified at project and program levels are addressed by these different committees.

5

PAKISTAN

Planning and Implementation

The Planning Commission is responsible for formulating the Five-Year Plan as well as the Annual Plan. At the federal level, the ministries and public sector organizations identify and prepare projects which are approved (after appraisal by the Planning Commission) by the Central Development Working Party (CDWP), or the Special CDWP for priority projects, and forwarded to the Executive Committee of the National Economic Council (ECNEC). The National Economic Council is the highest economic policymaking body. A Concept Clearance Committee gives clearance for negotiations with aid-giving agencies.

The four provinces also have a similar set-up. There are Planning and Development (P&D) departments in all provinces headed by an additional chief secretary. Projects initiated by departments and public corporations under the provinces are examined by Provincial Development Working Parties (PDWP) after processing by the P&D departments. Responsibility for final approval depends on the projected cost of the projects. The PDWP approves provincial projects costing up to Rs. 30 million,⁵⁰ but ECNEC approves projects when the cost is higher. Federal projects, costing up to Rs. 10 million are approved by the line ministry/organization, those costing between Rs. 10 million and Rs. 30 million by the CDWP, and those costing over Rs. 30 million by the ECNEC (after scrutiny by CDWP).

Financial allocations for approved projects are then incorporated into the Annual Development Plan. The responsibility for implementation lies with the sponsoring agency—ministry, department, corporation, or field agency.

Collection of statistics in Pakistan is the responsibility of the Federal Bureau of Statistics (FBS), of the Statistics Division, as well as regional offices of the FBS. Provinces also have their own organizations for data collection. All these agencies publish statistics on a monthly, quarterly, or annual basis. The Population Census Organization and the Agricultural Census Organization perform similar functions in their own assigned fields.

Evolution of the M&E System

The location and organization of M&E has undergone several changes since the National Planning Board was established in 1953. The Economic Affairs Ministry had primary responsibility from 1953 to 1958. After the Planning Board was raised to the status of the Planning Commission and placed in the President's Secretariat in 1959, M&E were assigned to it before being passed to the P&D departments in the provinces in 1962. M&E cells were created in the provincial P&D departments for this purpose. The technical sections of the Planning Commission were also strengthened to undertake program and sectoral reviews. Due to a number of problems, including lack of trained personnel in the provinces, this function gradually reverted to the Planning Commission in the 1970s. Its Implementation and Progress Division, however, was too small to monitor all 200 projects under its responsibility at the time, so only the larger projects were selected for monitoring.

Note: See Editorial Note for principal sources used in the preparation of this chapter.

50. In December 1987, US\$ = Rp 17.2.

In 1983, the Project Wing in the Planning Division, now Planning Commission, was created with wider responsibilities which, besides M&E, also included identification, facilitation, computerization, and training. Presently it only monitors a few selected federal projects, and the main burden of monitoring still remains with the M&E cells in the provinces.

The Planning and Development Departments (PPD) of the four provincial governments are responsible for M&E of all projects executed by the provincial government. Sind Province has the largest M&E Cell (MEC), created in 1983.⁵¹ It is responsible for providing regular updates on the progress of all projects included in the Annual Development Program (ADP), preparing quantitative analysis to assess the impact of ongoing projects on the economy, reporting on the utilization of ADP allocations, providing feedback to PDD on the progress of projects, helping determine sectoral allocations of future ADPs, preparing impact analysis of completed projects, and recommending how the operation of completed projects can be improved.

Some of the other monitoring agencies in different sectors/organizations are as follows:

- Performances Auditing Cell (PAC), under the Auditor General of Pakistan “audits” the performance of certain ongoing projects on the basis of detailed guidelines developed by it. The auditors are trained in the techniques of project audit with emphasis on the evaluation of results rather than traditional accounting procedures.
- Experts’ Advisory Cell (EAC) under the Ministry of Production, with World Bank assistance, monitors and evaluates public industrial enterprises under the ministry. Targets (output, profitability, energy conservation, etc.) are negotiated between EAC and enterprise managers at the start of the year. Managers can receive substantial end-of-year bonuses if their enterprise achieves its targets. Progress is continuously monitored, and reports are prepared and circulated periodically. Meetings are held with ministry officials, corporation chiefs, and heads of operating units to sort out difficulties that might have affected performance. The ministry has 8 holding corporations with 60 operating units and 40 on-going projects under it. The entire information gathering, reporting, processing, and analysis of reports is computerized.
- Large organizations implementing a number of high-cost projects also have their own monitoring cells. Such organizations include the Water and Power Development Authority (WAPDA) and the federal Ministry of Local Government and Rural Development.
- A M&E unit is also being established for the Prime Minister’s “Nine Point” Program. Arrangements for monitoring implementation of the Prime Minister’s Program include a Progress Section in the Planning Commission, Special Implementation Committees in line ministries and at the provincial level, and Chief Ministers’ Monitoring Committees.
- At the federal level, the Prime Minister has a high-level Inspection Team that focuses on problem projects. In the provinces such teams have been formed by the Chief Ministers as regular components of their Secretariat. Divisional inspection teams and district coordination committees also play a role in monitoring local projects.
- The donor agencies also conduct their own monitoring through their resident offices and visits by headquarters staff.

The monitoring network continuously reports to a number of higher bodies. The Planning Commission sends a monthly report to the Cabinet Division, which is circulated to all ministries. The Economic Coordination Committee of the Cabinet holds a weekly review meeting under the chairmanship of the Finance Minister. For private sector projects, an Industrial Policy and Procedures Committee reviews progress in sanctioning private-sector proposals and assesses the pace of their implementation. There is a special group for monitoring energy projects under the Planning Minister.

51. See Kazi (1987).

The federal ADP (1986-87) contains over 3,800 projects; monitoring all of them would be beyond the capacity of the Projects Wing of the Planning Commission. It is thus likely that sponsoring ministries and agencies will be assigned responsibility for monitoring smaller projects.

Evaluation is conducted on a highly selective basis. The Auditor General's office has a Performance Evaluation Cell (PEC) responsible for evaluating public enterprises through questionnaires and face-to-face interviews. Its functions include finance, marketing, purchases, production, and personnel management. Only projects costing above Rs. 10 million are covered by them. These reports are submitted to the Public Accounts Committee of the national legislature and to concerned ministries.

The Punjab Economic Research Institute, under the provincial P&D department, has also undertaken evaluation of projects in certain sectors—but only five to six projects a year. It is principally a research organization, although setting up a permanent evaluation cell is under consideration.

The Planning Commission's Evaluation Cell—established in the early 1960s—confines itself to evaluation of plan performance. Some unsuccessful efforts were made to make arrangements for project evaluation in 1968-69 at both the federal and provincial levels. Evaluation as a built-in element in the planning framework has yet to be accepted and assimilated into the system.

The M&E cell in the Sind P&D department has recently undertaken evaluation of four projects relating to health, rural electrification, and nutrition; the Sind government is developing a set of indicators for impact assessment. Evaluation will now form a part of the project plan, so that funds for this will automatically be approved.

The Appraisal and Evaluation section in the Punjab P&D department has also evaluated some projects in the transport, information, culture, and tourism sectors.

Methodology of M&E

Project monitoring is conducted at three levels (Table 5.1). First the project management or executing agency is required to complete four proformas covering (a) background and current status, (b) quarterly reports, (c) annual review, and (d) project completion reports. For most large, foreign-aided projects, an active internal monitoring system is used to detect and correct problems. This is often not the case for nationally financed projects where monitoring activities may be limited to completion of the required proforma. Second, the administrative ministry or sponsoring agency is responsible for intermediate-range monitoring for larger projects. Third, the Projects Wing or the Planning Commission conducts in-depth analyses of a relatively few selected projects. Projects are selected for monitoring by the Projects Wing, based on their fiscal size and sectoral importance, linkages with other schemes or projects, major foreign assistance, and critical role in overall development strategies. Priority is also given to large problem projects and to those that have not been examined for some time.

For projects monitored by the Projects Wing, regular site inspections are carried out with teams comprising officers from the Projects Wing, and the administrative ministry, and one or more sector specialists. Visits are preceded by a desk analysis of available data and are followed by a Review Report, which is discussed with concerned agencies. Computers are increasingly being used to keep track of development and difficulties faced by the many projects under way. Sind also has experience with "intensive" monitoring of 60 selected projects, in addition to its normal monitoring duties. Intensive monitoring involves a deeper look at problems, and keeping a close watch on the inputs supply position and financial situation, which may need reappropriation or additional funding.

Evaluation presents a less satisfactory picture. The Planning Commission has evolved three different evaluation pro forma for production, infrastructure, and social sectors. Evaluation has remained confined to foreign-aided projects, since the donors are concerned about the use of aid funds vis-a-vis the results achieved. Various other projects were

evaluated mainly by comparing the original project designs, targets, technical and economic feasibility reports, and financial and input plans with actual performance in technical, financial, physical, and managerial terms.

Table 5.1 Organization of Monitoring and Evaluation in Pakistan

<i>Activity</i>	<i>Responsibility</i>	<i>Methodology</i>
Internal day-to-day monitoring and project completion.	Project-executing agency	<ul style="list-style-type: none"> • Completion of pro formas on quarterly and annual progress • In many projects (particularly foreign aided), monitoring is built into project management as a tool for identifying and correcting problems
Interim monitoring	Provincial M&E cell and administrative ministry or responsible agency	<ul style="list-style-type: none"> • Review of pro formas • Consultations and site visits
Intensive review of selected projects	Projects Wing of Planning Commission	<ul style="list-style-type: none"> • Review (in process of computerization) of pro formas and other available documentation • Inspection visits • Follow-up meetings with concerned agencies
Performance and evaluation	Auditor General	<ul style="list-style-type: none"> • Review of project progress auditing based more on economic and financial performance than on traditional accounting procedures
Performance evaluation public manufacturing enterprises	Expert's Advisory Cell (Ministry of Production)	<ul style="list-style-type: none"> • Performance targets negotiated between EAC and project management • Progress on agreed targets monitored and bonuses are given based on percentage completion of targets • Consultation and site visits

Performance evaluation of completed and operating public industrial enterprises has been organized and executed by the EAC. An elaborate system consisting of (a) Performance Information System, (b) Performance Evaluation System, and (c) Incentive System has been created. Targets for evaluation are fixed for each unit on the basis of "private profitability," and progress is monitored by the EAC through its computerized Management Information System mechanism. A "Signalling System" has been devised for communicating to managers predetermined criteria for performance evaluation, and informing the government of appropriate policy actions needed to improve the working environment for public enterprises.

Review of the M&E System

Pakistan appears publicly to accept and recognize the need for ex-post evaluation of projects, but the institutional framework and the processes for its execution and integration

into the development management mechanism are still weak. Judging from the range and number of monitoring institutions and cells established and their assimilation within the planning network, monitoring seems to have made significant progress and is beginning to demonstrate its impact on the entire project cycle and the planning process.

The monitoring and diagnosis of project failures and constraints has begun to improve project preparation, appraisal, and implementation through more realistic estimation of project costs and benefits at the formulation stage, greater management accountability, and better scheduling and phasing of project work.

The Performance Auditing Cell and the Performance Evaluation Cell in the Auditor-General's Office, being independent and outside the development bureaucracy, have contributed to the development of monitoring through appraisal of such common weaknesses as underestimation of costs and overestimation of benefits at approval stage, sloppy reporting at different stages, and carelessness in the use of development funds. The EAC, with its highly trained professional staff, a system of continuous performance evaluation, and a well-developed methodology, has been instrumental in informing both the government and public enterprises of where failures are located and of the need to show results and achieve clearly-defined goals.

With development work rapidly expanding and the number of projects multiplying, however the capacity of the small number of people engaged in monitoring does not seem to match the challenge. The Project Wing of the Planning Commission can monitor only 1 to 2 percent of total federal projects. The Monitoring Cell in the Punjab P&D department has one full-time and 15 part-time officers to monitor over 1,700 projects to which another 4,000 projects under the Members of the National Assembly development program have been added. The two cells in the Auditor General's office were able to monitor only 94 out of 8,730 projects during 1981-87 and evaluate 15 out of 290 public enterprises. With additional staff and more training, their annual capacity is still restricted to performance audits of 25-30 projects and evaluation of 8-9 public enterprises. The linkages of these cells with the planning network remains somewhat undefined; hence their impact on the process of implementation is not very clear.

Despite the wider use of computers, progress reports and information tend to move slowly through the system (with the exception of the Ministry of Production), which diminishes much of the value of review, problem identification, and diagnosis. Probably too few people to read all the reports analyze and detect problems, and follow up.

In the early 1960s monitoring was close to the highest authority when the function was assigned to the Planning Commission which, at the time, was in the President's Secretariat. The monitoring function, however, has gradually been accepted as a normal administrative activity, and the Planning Commission is no longer perceived with hostility as an "outsider" or a "super ministry." Proximity to the source of political power and authority seems to isolate a new M&E organization from the sprawling administrative structure and reduces the possibility of establishing lines of communication and coordination.

Illustration of M&E at the Sectoral Level: The Water and Power Development Authority⁵²

Monitoring is an important component of the project implementation process in the Water and Power Development Authority (WAPDA). Established in 1959, it is responsible for such critical development areas as electricity generation, irrigation, water supply, drainage, control of water logging and salinity, and flood control. Its projects are costly, complex, and of a long-term nature involving high technology with wide coverage in both area and population. About 30 percent of the ADP is currently handled by WAPDA; their foreign aid component is also very high.

52. See Khalid Mohtadullah (1987).

In such a large organization, the system of monitoring is accordingly extensive and diverse. The process starts with line managers preparing monthly and quarterly information on the financial and physical progress of programs and projects to be compiled and analyzed by the Coordination Division of the Water and Power Wings. Reports are then sent to the line ministry, i.e., the Ministry of Water and Power, and the Planning Commission.

Major projects like the Tarbela, Mangla, Chashma, and Warsak dams are monitored with emphasis on the engineering aspects. Similarly, the Salinity Control and Reclamation Projects (SCARPs) confine themselves to water quality, soil, and hydrological monitoring. A number of On-the-Farm Water Management projects are currently under way, which are monitored by the Directorate of Planning and Investigation specializing in agro-economic aspects. Another large ongoing project, the Left Bank Outfall Drain (LBOD) also has its own Directorate of Design and Monitoring.

The overall monitoring work is handled by the Project Monitoring Division, which has separate sections for monitoring the water and power sectors. Reporting directly to the Chairman of WAPDA, it publishes periodic progress reports, identifies constraints, and carries out inspections.

Ex-post evaluation is done through completion reports, but many people do not take this seriously because they feel that this activity is not given the consideration it deserves by higher authorities. However, in the case of aided projects, evaluation is done at the insistence of the donor agencies.

Monitoring is handicapped by the absence of detailed and comprehensive implementation plans and clear demarcation of work stages. Monitoring forms are much too comprehensive and include too many indicators, which increases the danger that decision-makers will miss the crucial problem areas in the vast jungle of information.

Training

Pakistan has a number of general management training institutions for all levels of government and public sector officials. These include the Pakistan Administrative Staff College, four National Institutes of Public Administration, and the Civil Services Academy. There are also training agencies in such areas as rural development (Pakistan Academy of Rural Development), large organizations (like Pakistan International Airlines, banks, railways, WAPDA), various government departments and ministries, and public corporations. M&E does not figure in their training program, even though many of the parent organizations are project-oriented. However, at the WAPDA Staff College, where the focus of training is on projects, M&E constitute significant portions of the course contents. Similarly, the Pakistan Institute of Management, which trains public and private sector executives, also pays some attention to this area.

There are two institutions that specialize in training in various aspects of planning and implementation, i.e. the Project Planning Center (PPC), at the Pakistan Institute of Development Economics, Islamabad and the Project Training Institute under the Punjab P&D department. Their program stresses project formulation, management, and appraisal, although it also gives much attention to M&E.

The Planning Commission plans to set up the Pakistan Planning and Management Institute to train middle- and senior-level officers in plan-related skills. The Project Wing of the Planning Commission also plans to organize short orientation courses in M&E.

Conclusions

Pakistan's monitoring system supplements the task of monitoring cells and agencies within the development bureaucracy by such "outside" agencies as the Auditor General and the Experts' Advisory Cell, which exercise "moral" rather than "executive" authority over the implementing organizations. The system may lead to some duplication, but as long as it does not lead to multiplication of monitoring indicators or too many inspections from

different agencies, and the scope of monitoring remains well defined and focused, it may produce positive results. However, linkages and communication lines between these two types of agencies need to be formalized so that project failures and planning weaknesses are conveyed to appropriate authorities and follow-up action ensured.

Monitoring is sometimes used to identify problems in "sick" projects, which is only natural. Monitoring should also be regarded as an essentially preventive—not curative—device.

Computerization has been introduced to facilitate communication and decisionmaking at higher levels, but should be extended to the project level so that project managers can also devise and improve their own internal information systems and inventory control through computers.

The national and provincial monitoring systems are presently limited to public sector and government projects. Private-sector projects should also be monitored to ensure their progress and completion in accordance with plan targets and needs of the economy.

Evaluation systems must be made more effective. Planners should look beyond the completion report pro forma by devising institutional arrangements for analyses of lessons learned and for implementing improvements in the planning and implementation process. Evaluation should be considered not only as useful for the donors, but as essential for the recipient country.

6

SRI LANKA

Planning and Implementation⁵³

Sri Lanka started on the path of national planning with the creation of the National Planning Council (NPC) in 1956. After a number of organizational changes and economic difficulties in the last three decades, the plan has not succeeded in providing a general framework for development and has come under increasing pressure from various key sectors and fiscal, monetary, and commercial constraints.

After the ten-year plan in the 1960s failed to get off the ground, the planning process remained in the background, and projects were financed by the General Treasury through the annual capital budget. In 1965, the NPC was replaced by the Ministry of Planning and Economic Affairs, which included Plan Implementation Division (PID). Capital budgeting was also assigned to the new ministry. In the early 1970s, "grass roots planning" was introduced as part of the policy of decentralization, and more development funds were placed at the disposal of district development councils.

The Ministry of Plan Implementation (MPI) was created in 1973 to coordinate implementation of development programs through a system of project inspections, progress reports, and special studies, and to advise the government on problems, issues, and remedial actions to speed up work and induce greater utilization of allocated funds. Another change took place in 1977 with the creation of the Ministry of Finance and Planning (MOFP), responsible for both plan formulation and capital budget preparation. The role of MPI now included coordination through a Development Secretaries Committee (DSC), besides its original functions of monitoring and follow-up.

At present, Sri Lanka operates on the basis of a rolling plan with a five-year Public Investment Program (PIP) for "lead" projects (the Accelerated Mahaweli Development Program, the Housing and Urban Development Program, and the Greater Colombo Economic Commission). Financing is done through PIP, which is prepared annually within the framework of the Rolling Plan. The five-year perspective is continually updated based on the changing domestic and international situation. The PIP and the annual World Bank Report on Sri Lanka are considered by the aid consortium to determine the needs and extent of foreign assistance.

In principle, the Committee of Development Secretaries approves projects prepared by line ministries, and final decisions are taken by the Cabinet, with NPC providing technical advice to both.

Evolution of the M&E System

M&E of the three "lead" programs is done through their own cells. The remaining tasks of monitoring are handled by MPI, and since 1985, efforts have been made to extend this function beyond mere reporting and progress. A high-level committee for Close Monitoring of Projects and Programs (COCM)⁵⁴ with the Secretary, MPI, as chairman, reviewed the

Note: See Editorial Note for principal sources used in this chapter.

53. For more details, see Ambalavaner (1978).

54. The COCM is based on the system used in Malaysia and was established in April 1986.

progress of about 80 projects from different ministries in 1986 and was expected to cover 142 projects in 1987. Many line ministries have formed their own Progress Review Committees (PRC). The COCM reports to the high-level CDS. It identifies constraints, inputs, the supply position, and funds utilization, and makes suggestions and remedies.

The MPI is thus the principal agency for monitoring. In addition to project monitoring and dissemination of progress reports, it is also responsible for plan implementation coordination, performance evaluation of various development agencies and enterprises, and training and consultancy.

Methodology of M&E

A key element in the M&E methodology (Table 6.1) developed by MPI is the creation of linkages between monitoring, planning, and implementation, so as to ensure that monitoring data is used in a timely manner to identify and correct problems, and to improve the selection and design of future projects. First, the Committee on Close Monitoring of Projects and Programs (COCM) selects and closely follows the progress of key development projects. COCM reports directly to the Committee of Development Secretaries, thus ensuring rapid implementation of recommendations and coordination between the different agencies involved. Second, quarterly progress reports are prepared on all major projects and problems and recommendations on required actions are identified. These reports are discussed at high-level interagency meetings. Third, efforts are being made by COCM to improve performance indicators and indicators of principal constraints, and to computerize them to ensure rapid feedback. Fourth, monthly feedback is provided to the Ministry of Finance on the status of capital expenditures to ensure efficient resource utilization.

The MPI requires project managers to report quarterly on physical and financial performance, the reasons for any shortfalls, and the aid utilization position for foreign-aided projects. Physical performance indicators have been developed,⁵⁵ and a set of 70 common constraints on project implementation have been developed to facilitate reporting. These quarterly reports are consolidated and published quarterly by the MPI, and a summary report is submitted to the Committee of Development Secretaries. Microcomputer systems are being developed to facilitate reporting.

Line ministries prepare monthly monitoring reports based on reports from project managers, which are reviewed by district project coordination committees. These reports are consolidated into quarterly reports and sent to the ministry's Project Steering Committee, which may decide on any restructuring or updating of work schedules and financial releases. Some line ministries and major projects like the ministries of Health, Education and Land Development, and the Mahaweli project have developed their own monitoring systems, which are quite different from each other.

There is no organization charged with the task of ex-post evaluation. But in the case of the agricultural sector, the Agrarian Training and Research Institute has undertaken evaluation of some agricultural projects. Recently a foreign consultant was commissioned to evaluate the family planning program. In 1981, the National Housing Development Authority was in considerable difficulty and also had liquidity problems. The NPC was asked by the government to undertake a "mid-term program evaluation." The report of the NPC and its recommendations were submitted to the government, and prompt action was taken. These are only isolated examples of "troubleshooting;" ex-post evaluation—an analysis of the entire experience and impact of a completed project—is yet to become part of the planning process.

55. See Jayawardene (1986).

Table 6.1 Organization of Monitoring and Evaluation in Sri Lanka

<i>Activity</i>	<i>Responsibility</i>	<i>Methodology</i>
Monitoring of capital expenditure program	Ministry of Plan Implementation (MPI)	<ul style="list-style-type: none"> • Indication of physical and financial implementation • Indication of constraints to project • Computerization of reporting performance • Preparation of quarterly progress reports which are discussed with concerned ministries • Monthly reports on capital expenditure to Ministry of Finance
Monitoring of development projects	Committee on Close Monitoring of Projects chaired by MPI and reporting to Committee of Development Secretaries National Planning Division of Ministry of Finance and Planning	<ul style="list-style-type: none"> • Similar to above, but with more key intensive review • Assessment of capacity of institutions to absorb public financial resources • Assessment of the institutional capacity to implement proposed projects
Accelerated Mahaweli Irrigation Program	Planning and Monitoring Unit (Mahaweli Authority)	<ul style="list-style-type: none"> • Monthly brief on progress and problems • Contractors' progress reports • Reporting modules prepared by all government agencies • Special studies conducted by five-person team • Photographic documentation
Internal and progress monitoring	Executing agencies	<ul style="list-style-type: none"> • Preparation of quarterly progress reports • Management review of progress reports

Sources: Ambalavanar (1987), Attanayake (1987), and Premaratne (1987).

Review of the M&E System

M&E in Sri Lanka is still evolving and under continuous review and modification. At present it seems that it will remain distributed among the MPI, line ministries, and "lead" projects, each acting on its own and devising its own process. Supervisory functions remain with CDS, NPC, and COCM. There is some movement towards harmonizing these different monitoring activities so that a clearer perspective emerges at the national level.

The country has already begun using microcomputers for monitoring, with help from UNDP, Overseas Development Administration (ODA), and the Project Planning Centre of Bradford University. Some success has been achieved in devising sets of physical indicators for monitoring, which can be used in different sectors. At present they are used only by the projects being monitored by COCM.

Funding for monitoring by line ministries and corporations is a constraint. There is a feeling that the successful monitoring system devised by the Mahaweli project, including an Operation Room, could be replicated in other sectors if funds were available. However, awareness of the significant role that monitoring can play has led to improved coordination between monitoring authorities, and line ministries and project staff. In a recent example, after a World Bank team visited Kurunegala District Integrated Rural Development Project their report suggested certain improvements, which were readily accepted. This indicates a positive attitude towards monitoring as a device of performance improvement.

Evaluation, however, remains neglected. However, as monitoring experience is gained and greater institutional stability in development management is attained, the process of ex-post evaluation may find its place within the planning mechanism.

The current situation in M&E can be further improved if discipline in project and program implementation is strengthened by more frequent project inspections. What is even more important is strengthening the role of MPI in dealing with "macro-level" constraints in implementation, such as transport bottlenecks, procurement and other procedural delays, shortage of certain types of skills and techniques, energy supply and cost, etc., which are faced by all ministries. This will lead to better integration within the development administration and emergence of a focal point for removing constraints and difficulties in program implementation.

Illustration of Monitoring at the Sectoral Level: Accelerated Mahaweli Irrigation Program⁵⁶

Monitoring the Accelerated Mahaweli Program (AMP), begun in 1977, is a challenging task. When completed, the AMP will irrigate 125,000 hectares and provide sustenance to over 200,000 families. It will also generate 600 Mw of electricity. Considerable progress has already been made, and about 48,000 families are already settled on newly irrigated land. The total cost of the program is expected to be over US\$3 billion and it already receives about 40 percent of the country's annual capital budget. There are 15 multi-lateral and bilateral donor agencies involved in financing, all of whom are interested in monitoring its progress. This multipurpose program includes a large number of projects and sub-projects.

The monitoring function was assigned to the Progress Control and Plan Coordination Unit, now called the Planning and Monitoring Unit (PMU), which was established with assistance from UNDP and Canada. As its name suggests, the PMU has both planning functions (e.g., planning of downstream and headwork peripheral areas, coordination between the large number of public and private implementing agencies, preparation of implementation and work schedules, etc.) and responsibility for monitoring, evaluation, and impact studies.

After some restructuring and modification, monitoring is now done on a monthly basis because of the need to coordinate the numerous program components. The monitoring part of the PMU derives information for these monthly reports from (a) contractors handling different projects and subprojects; (b) reporting modules designed for specific tasks by government agencies in such areas as evacuation, resettlement, distribution and use of agricultural inputs, crop yields, health and sanitation; and (c) five special studies officers of the PMU who are continuously in touch with field activities.

These monthly reports are consolidated in Colombo by a team of two documentation officers who prepare briefs for top-level policymakers who are in a position to take timely measures to tackle any emerging difficulties. Preparing monthly monitoring reports, although justified, makes it difficult to link progress in the program and its various components with the utilization of funds where a monthly breakdown of expenditure targets may not be possible.

As the AMP approaches completion, attention in monitoring is shifting from infrastructure to downstream activities like resettlement, promoting different farm and nonfarm activities, and building social infrastructure. This is a more complex and challenging stage. Impact Evaluation work at the PMU involves periodic evaluation of ongoing or completed projects and subprojects with help from local experts who assist in the data collection required by donors.

Inevitably there are tensions between monitoring staff and project personnel, because they may both interpret monitoring as supervision, control, or even "policing."

⁵⁶. See Attanayake (1987).

Training

Training in M&E in Sri Lanka is done by the Sri Lanka Institute of Development Administration (SLIDA). Some of the courses on planning and project management include small components on M&E. In a major effort in the early 1980s, SLIDA collaborated with the Training Division of MPI and the UNDP to organize a short training program for district officers from line departments involved in plan implementation. With the creation of district development councils and decentralization of program implementation, a Tripartite Review Meeting of the UNDP Project for Strengthening of Development Planning was held in 1981; they decided to hold 12 week-long courses in Project Planning and Implementation for concerned officials in all the 24 districts. A strong component of monitoring—progress control, network analysis, phasing and work scheduling, and evaluation methodology of project and program implementation—was included. The training program was completed in 1983.

The National Institute of Business Management offers degree and diploma courses in many subject areas as well as and short training courses. It offers a three-day course on Financial Analysis of Projects. The Marga Institute, a well-known research institution, specializes in social and economic development, science and technology, law, and project implementation. It has conducted evaluation of the socioeconomic impact of rural electrification and other programs.

Conclusions

Constrained by resource scarcity and pressures to keep development strategy and plan schedules flexible, Sri Lanka has made brave efforts not only to sustain the growth process, but also to strengthen and diversify the institutional framework for development. Despite all the usual weaknesses, such as lack of trained personnel, poor project preparation and scheduling, and inadequate data base, the country has striven to keep the growth process moving.

The scope of monitoring, limited at present, needs to move beyond short-period reporting of physical and financial progress to analysis of causes of failures or bottlenecks. With strong political support for a broader monitoring focus, policies to expedite the implementation of projects should be easier to work out.

The reporting system could develop a long-term perspective if information from the MPI and the line ministries and corporations could be consolidated so that a clearer picture about input availability and intersectoral linkages could be presented to the policymakers. Line agencies could learn from each other's experiences if certain monitoring processes were to be standardized. This would require an organization with more expertise and background like MPI to coordinate the M&E systems of other agencies, in addition to its own current responsibilities.

Evaluation is still an evolving concept in Sri Lanka. More meaningful lessons can be drawn from completed projects and their impact on the economy. In the proper perspective, this information can contribute to better planning and implementation.

7

BURMA

Planning and Implementation

The development planning functions in Burma are performed by the Ministry of Planning and Finance (MOPF). In the light of the Burma Socialist Program Party's national goals and priorities, a Twenty-Year Plan (1974-94) was drawn up by the MOPF. The plan is a prospective, as well as operational, one. On one hand, its long-term goals include doubling the standard of living, achieving an average annual growth rate of 5.9 percent during these two decades, and transforming the present agricultural society into an agro-industrial economy by laying the political, economic and social foundations for socialist production relations. It also identifies short-term priorities for boosting agricultural production and exports, followed by import substitution in consumer goods, and maximizing mineral production in order to lay the foundation for heavy industries.

Responsibilities for project identification, formulation, appraisal, and implementation have been assigned to line ministries and public corporations within the plan objectives and priorities.

The M&E System

The implementing agencies are primarily responsible for M&E of their own projects, and for identifying shortcomings and constraints. At the national level, the Project Appraisal and Progress Reporting Department (PAPRD) was set up in 1972 to supervise the monitoring activities of all ministries and state economic enterprises. The PAPRD uses information supplied by all implementing agencies to prepare quarterly reports for the Economic Coordination Committee (ECC) of the Council of Ministries (which is the highest economic policymaking body) through the MOPF.

Ex-post evaluation is also done by both the implementing agencies and the PAPRD. The agencies are required to prepare project completion reports that indicate both the economic and social impact of the completed project. They are examined by the PAPRD, which is also authorized to carry out evaluations on its own if necessary. Five industrial projects have been evaluated by PAPRD so far.

Methodology of M&E

The PAPRD has prescribed three forms for project M&E for (a) collection of baseline data, (b) quarterly progress review, and (c) ex-post evaluation of completed projects.

In addition to these reports six schedules must be prepared for each project giving the detailed position regarding (a) investment, (b) loan/grant utilization, (c) construction by phases, (d) buildings whose construction is required by the project, (e) procurement and installation of major machinery and equipment, and (f) a list of all equipment and all other inputs to be used.

Note: This chapter is based on Daw (1987).

Review of the M&E System

Monitoring stresses physical progress more than financial aspects. Since MOPF is responsible for providing adequate finance, it is assumed to be fully knowledgeable of funds release and utilization, and also assumed to carry out its responsibilities in case of financial needs. Project delays and cost overruns are caused mainly by such factors as unavailability of inputs or labor, problems in tendering and final selection of contractors or technical problems previously unforeseen. Certain basic weaknesses in the planning system may cause faulty project preparation, inappropriate time scheduling and frequent changes in project scope and design.

Timely detection of such constraints and alerting the concerned authorities to take prompt action is often lacking because of delays of up to 30-45 days in preparing quarterly progress reports causing the entire monitoring system to slow down. Delays also occur when project reports have incomplete information on various critical variables and provide only vague information on implementation constraints. Problems pertaining to internal project management are often underemphasized, if reported at all. In such cases more time is wasted because PAPRD has to call meetings with project managers and line ministries to collect the required information for a better perception of the problems before a meaningful report with proposals for corrective action can be given to the policymakers.

Evaluation is accepted as an essential and integral part of the planning and implementation process, but the scope of project completion reports containing ex-post evaluation is limited only to comparison of original targets and schedules with actual results and completion of different work stages. Studying the socioeconomic impact and identifying project failures are not given similar importance; hence, little experience is gained from completed projects.

Conclusions

The record of project implementation in Burma is not very different from that of other developing countries, but the monitoring system has yet to play its designated role in expediting implementation processes and reinvigorating the entire development effort. Project monitoring must be strengthened in three ways: (a) having more frequent project inspections by the PAPRD (they are at present infrequent and limited to large projects); (b) increasing ex-post evaluation of projects by PAPRD, which so far has only been able to evaluate five industrial projects; and (c) increasing the number of professional staff for M&E and, more important, increasing their training in required skills and techniques.

Computerization may be helpful after the M&E system has acquired sufficient expertise and the reporting systems at various levels are streamlined. A computer is a useful management tool only if it is fed timely, accurate, and comprehensive information. Once these arrangements are ensured, computerization will be the next, and necessary, stage of evolution of the planning and implementation system.

8

CHINA

Planning and Implementation

Management of development and planning systems in China is highly centralized. Basic policy formulation is the responsibility of the Chinese Communist Party, while the state administrative system is responsible for implementation and managing the economy. The system works on the basis of what is sometimes described as the "dual leadership" of the Party and the State.

Decisions regarding the size, composition, and distribution of the total national output are made at the policymaking levels and coordinated through an Annual Plan. The plan is highly comprehensive and includes inputs allocations, prices, wage levels and labor deployment, technology, etc. Plan formulation is assigned to the State Planning Commission (SPC), while implementation responsibilities are distributed among the State Capital Construction Commission, the State Economic Commission (for industry and transport), and the State Agricultural Commission. There are similar arrangements at provincial and county levels. Provincial plans are prepared by the SPC, county plans are guided and integrated by provincial planners, and the county planning bureaus prepare local plans.

Parallel to the Annual Plan is a production plan which divides responsibility for commodity flows among several agencies—such as the State Materials Supply Bureau, line ministries, agencies dealing with specialized fields, and supply and marketing cooperatives—each having its own subordinate or counterpart units at provincial and county levels.

Allocation of goods of national importance (about 1000 in number) is done at national level for provinces and centrally controlled agencies. They are further allocated by relevant provincial agencies, along with the remaining goods and materials among provincial agencies and counties. The plan exercise seeks to match demand for consumer, intermediate, and capital goods with supply, based on a consistent set of material balances.

Financial control is exercised through the consolidated state budget; it incorporates all provincial budgets, which in turn incorporate county budgets. Through the centralization of the financial system, the central government allows poorer regions to retain larger shares of revenue at the expense of richer regions. About half of the budget expenditure consists of grants for fixed and working capital formation, whose investment is jointly controlled by the Ministry of Finance and the SPC. In case of disputes, the matter is decided by the highest decision-making body, i.e., the State Council.

Under the principle of a "unified plan but different level management," projects costing over RMB30 million⁵⁷ are approved by the SPC, and the rest by line ministries or provincial planning commissions. Of course, responsibility for formulation and feasibility studies remains with the sponsoring agency.

China has a wide network of agencies for collecting statistics: (a) a government statistical system comprising the State Statistical Bureau (SSB), the provincial statistical bureaus and county level units; (b) the statistical units in specialized ministries and corresponding agencies at provincial and county levels; and (c) the statistical units at the grassroots level in individual enterprises and production units, educational institutions,

57. In December 1987, US\$ = 3.2 RMB.

hospitals, etc. About 18,000 are employed in the system. There are about 170 statistical pro formas for reporting at the SSB level and about 2,600 forms are used by ministries and other agencies. Although there is an extensive system for collecting statistics, there continue to be difficulties in distribution and accessibility of statistical information. This is due in part to a traditional reluctance of agencies to disclose data without complex clearance procedures.

The M&E System

M&E of projects is principally handled by various planning agencies such as the SPC, provincial planning commissions (PPCs), and planning bureaus in line ministries. Construction management agencies in some ministries and provinces also monitor their own projects. The SPC usually monitors only large projects, with progress reports provided by PPCs or line ministries.

The People's Construction Bank of China and some other banks, auditing and accounting organizations, and financing agencies also undertake monitoring from their own viewpoint.

Ex-post evaluation is called "check and acceptance of the completion report" in China. This report is prepared by a committee consisting of representatives of all concerned agencies, including project managers, design institutions, construction corporations, banks, statistical units, and the relevant planning agency. The SPC evaluates large, key projects and submits a report to the State Council. Planning agencies at other levels are responsible for preparing the "check and acceptance" reports of projects under their own jurisdiction.

Methodology of M&E

According to the regulations governing fixed assets investment, progress reports (called project implementation reports) must be submitted each month. The reports should include information on disbursement of funds, physical progress, and the procurement situation. The supervising planning agency analyzes them in the light of original targets and identifies problems in implementation requiring action by the implementing agency or a higher-level body.

Inspection visits are also made by planning or construction management authorities, but because of staff constraints, are limited to only important projects. The SPC, according to reforms recently introduced, also requires line ministries and PPCs to appoint a "liaison man" for each key project, who is responsible for preparation and submission of monthly progress reports to the SPC. Sometimes the planning or implementation agency may monitor one particular aspect of project implementation that is causing some special problems or suffering from a serious bottleneck.

The "check and acceptance" (evaluation) process is done in two stages:

- Collection and transmission of the project's detailed basic data drawn from the approved project proposal and feasibility report, dates of completion of different stages of work, projected and actual costs, etc. For this process, the project staff have three to six months after completion of the project.
- The planning authorities, together with design, construction, and sponsoring agencies, analyze and compare results with targets. Technical standards, quality of construction and other work, and costs are the major criteria used for assessing performance. This is done within two to three weeks after the submission of the check and acceptance report. If project completion has been carried out satisfactorily, the planners issue an acceptance certificate, which is sent to higher authorities (SPC, PPC, or line ministry) for final approval. Only then is the project allowed to go into operation.

Review of the M&E System

China has been remarkably successful in instituting a fairly stable and workable mechanism for M&E of its enormous and wide-ranging development programs and projects.

This enables the government and the large number of sponsoring organizations at all administrative levels to keep themselves well informed about the overall working of its large planning and development implementation system which, given its size, diversity and coverage of area and population, might have become unmanageable and chaotic. Monitoring is especially important for controlling materials allocations, since failure in one project could have repercussions throughout the system.

Centralization of M&E has also helped standardize processes and organizational structures, so that different agencies involved in the task could learn from each other's experience.

Recent reforms have also helped improve the system. Before 1980, projects were financed through budget grant allocations. The project managers were, therefore, under no compulsion to improve efficiency in the use of materials and funds. The reforms introduced in 1980 have turned grant allocations into loans from the government or the banks. Now, unless implementation efficiency is improved, the projects' inability to service their debts would show up in their monitoring reports, and managers would be held accountable.

Until recently, M&E and project appraisal agencies did not apply analytical techniques, such as economic cost-benefit ratio, discounted cash flow, and shadow prices, except in the case of a few projects. Now with the greater role of market forces in determining prices, there is growing interest in the application of these techniques. EDI has been organizing training programs on these techniques in cooperation with national training institutions in Shanghai and Beijing. SPC has established a task force to standardize procedures for using economic analysis during project appraisal in all sectors.

Some difficulty is being faced in the case of foreign-aided projects since the start of such projects in 1978, particularly in integrating internal processes of accounting procurement and disbursement with those used by the lending agencies and governments. The SPC has designed a new system for such projects, which is still in an experimental stage.

Conclusions

China's planning has mostly operated on the basis of year-to-year programming contained in annual plans. Long- and medium-term planning has not had much impact in the past, since planners were more preoccupied with determining priorities in the allocation of funds, and the immediate needs of the economy received more attention.

With the opening-up of the economy and agricultural and industrial reforms, more scope has been allowed for market forces and private initiatives. The traditional system of vertical controls, with only limited horizontal links, may have to be modified so that coordination between line agencies and administrative regions can be strengthened. The creation of such horizontal linkages and communication would be a great achievement if made without reducing the ability of the Chinese government to evoke a quick and uniform response from units at the bottom after orders from the top.

With the long-term perspective in planning now evolving with a series of reforms in recent years, those engaged in planning and project implementation will need skill upgrading in several areas, e.g., forecasting, linear programming, inventory management, etc.

Evaluation of projects, as practiced in China, takes the form of "implementation evaluation" from a short-term viewpoint, since it is done before the project begins to operate. Now that long- and medium-term planning is being strengthened, ongoing and ex-post evaluation are recognized as needs. The scope of evaluation may also have to be widened to include the project's socioeconomic impact and its long-term cost-benefit ratio. This can yield invaluable lessons for selecting the project portfolio for long-term plans.

PART 3

RECOMMENDATIONS AND NEW DIRECTIONS

9

RECOMMENDATIONS

This chapter summarizes the recommendations of seminar participants with respect to the location, organization, management and methodology of M&E and on the organization of M&E training.

The M&E System at the National and Sectoral Levels

The Role of M&E in the Planning and Management of Development Projects and Programs

Development planning and management require effective systems for providing information on the progress of projects, for assessing the extent to which projects are achieving their objectives in an economical and timely manner, and for assessing the contribution of individual projects to overall sectoral and national development objectives. This can only be achieved through a national M&E system, which provides the information required by planners, policymakers, and managers at the national, sectoral, provincial/state, and local levels.

Different organizations require different kinds of information for planning and managing projects and programs, so it is necessary to develop a national M&E system, which will define the functions of M&E units and agencies at the national, sectoral, and local levels and which will ensure the effective coordination between all of these agencies in the collection, processing, communication, and use of M&E information.

A national M&E system will normally require the following components:

- A central agency responsible for defining and coordinating the national M&E strategy. This will normally be the ministry of planning.
- A central agency responsible for implementing and coordinating the monitoring of development projects. This may be the ministry of planning, the ministry of plan or program implementation or less commonly, the ministry of finance.
- A central agency responsible for implementing and coordinating the evaluation of development projects and programs. This will normally be the ministry of planning.
- A central agency responsible for monitoring resource utilization and aid disbursements, for assessing capacity of agencies to implement projects, and for defining future resource allocation. This will normally be the ministry of finance.
- One or more agencies responsible for ensuring accountability to donors and to the national legislature and executive for the use of project funds. This will normally be the ministry of planning in coordination with the auditor general.
- A M&E cell in each development agency and line ministry.
- In federal systems, there should be a M&E cell in each state or province. In South Asia, this will normally be located in the planning and development department of the state or provincial government.
- Monitoring (and possibly evaluation) cells in each major project.

There are many different ways to define the relative responsibilities of each of these agencies and the coordination and communication between them. The central planning ministry should normally be responsible for developing and helping coordinate the operation

of the overall M&E system. Without an overall framework and adequate coordination, one or more of the following problems will commonly arise:

- Certain kinds of essential information will not be collected or analyzed.
- Available information will not be communicated to the agencies requiring it in an adequate and timely manner.
- Information will be incomplete or inaccurate.
- The collection of information will be duplicated.
- Unneeded or unusable information will be collected.

Location of the Central M&E Agency

While many different agencies may have specific M&E functions, there needs to be a central agency responsible for the definition and coordination of a national M&E strategy. Different agencies may be responsible for the implementation of project monitoring and program evaluation.

There is no single, ideal location for M&E, and the location in any particular country will be determined by the overall planning and development strategies and management system, and the relative strengths and responsibilities of different ministries and agencies. Factors affecting the organization of the national M&E system and the location of the central M&E agency include the following:

- The size of the country.
- The level of professional skills available in the areas of M&E.
- The economic level of the country and its access to computer technology.
- The adequacy of internal communication systems.
- The degree of decentralization in planning and the proportion of external development financing.

The possible locations of the central M&E agencies are the ministry of planning, ministry of finance, and the ministry of plan or program implementation:

- Although M&E may originate in the ministry of planning, this may not be the ideal location in the long run for project monitoring since it is normally too far removed from the process of project implementation and management.
- If M&E is located in the planning ministry, it is essential to ensure rapid feedback to the line ministries and implementation agencies.
- If M&E is located in a ministry of plan or program implementation it is essential to ensure adequate feedback to the planning ministry, so that M&E information can be used in future investment planning and project design.

One option is to assign project monitoring to the ministry of plan/program implementation and to assign project and program evaluation to the ministry of planning. Assuming there is adequate coordination between the two ministries, this option has the merit that adequate attention can be given to both M&E.

While recognizing the importance of locating M&E in agencies that have direct access to the chief executive and senior decisionmakers, it is essential to think in terms of long-term systematic development and not to create an organization responding to short-term political situations which may change with the rotation of officeholders.

When deciding the location and functions of M&E at the national level, it is essential to realize that the functions of this agency should be to facilitate planning and coordination of development projects and programs. It should not try to assume the project management functions of the line ministries.

Responsibilities of Different Central Government Agencies in the M&E of Projects

The functions of different organizations will be dependent on the way in which M&E are incorporated into the national planning and project management system.

The central M&E agencies, irrespective of their location, will normally have the following responsibilities:

- To ensure that all projects are being implemented within their timetable and resource allocation.
- To identify projects deviating from their timetable, budget, or objectives, and to identify the causes and provide remedial actions.
- To provide the chief executive and the senior planning and policy agencies with timely information on projects encountering problems, and to identify the causes of the problems and propose solutions.
- To ensure concurrent ongoing evaluation, as well as ex-post evaluation, so as to redefine the project objectives as circumstances change and more information becomes available.
- To ensure coordination between all of the different agencies involved with project implementation so as to eliminate bottlenecks and ensure timely provision of resources and services.
- To provide information to the ministries of planning and finance, other central government agencies and donors on the progress of projects and any potential problems that arise.
- To ensure that information from projects is fed back into the planning process to be used in future investment planning and project design.
- To develop systems of accountability to ensure that project funds are used appropriately. This should involve a system of project completion reports, project auditing, and follow-up studies to evaluate project sustainability and impacts.
- Create a data bank to be used in planning future projects.
- To advise the ministry of finance, and other agencies responsible for loan negotiating with donor agencies, on the reasonable M&E requirements for donor funded projects.

Irrespective of where the central monitoring unit is located, the ministry of planning should always assume the following responsibilities:

- Design and coordination of a national M&E system that satisfies the information needs of policymakers, planners, managers, and donors at the national, sectoral, provincial, and project levels.
- Development of systems to ascertain periodically whether all projects are achieving their intended objectives.
- Proposal of corrective measures to ensure that objectives are achieved.
- Supervision of the preparation of project completion reports and implementation of procedures for project auditing.
- Ensuring the creation and use of the project data bank, and ensuring the completeness and validity of the data.
- Conducting evaluation studies on selected projects to ensure that they are cost-effective, and that they are being sustained and producing (and continuing to produce) the desired impacts.
- Development in coordination with other central agencies of standard M&E procedures and the preparation of manuals documenting these procedures.
- Coordination with national training institutions to ensure that adequate training is provided on M&E at the national, sectoral, and local levels.
- Coordination with line and technical agencies to ensure that donor information needs are integrated as far as possible into the national M&E system. The planning ministry should be responsible for protecting line ministries from excessive and unreasonable information requirements from donors.

The ministries of planning and finance should coordinate closely to ensure the following:

- The integration of data on physical progress and expenditures to project future cash flows and to anticipate future cost overruns. This should be done in a timely manner so as to take remedial actions at an early stage.
- Regular, cost-effectiveness analysis on selected projects.
- Adequate financial provision for M&E, both within donor sponsored projects and for nationally financed projects.

Coordination

The central M&E agency should coordinate closely with the line ministries and should receive information from the central planning and monitoring division of each ministry on the projects it is implementing. The central monitoring agency must be careful, when communicating with the regional and district offices, of line ministries not to usurp the responsibilities of the ministries and to avoid creating duplication and communication problems. The central M&E agencies must seek to support and strengthen the line ministries and not take away their authority.

Periodic review meetings must be held between the central M&E agency and the line ministries. The central agency staff should also conduct regular field visits to maintain contact with provincial and project level staff, to provide feedback, and to assess the validity of data. Formal and informal communications channels should be developed to promote more interaction between various levels. Verbal as well as written reports should be used.

The Role of Donor Agencies in M&E

While donor agencies have played an important role in promoting M&E systems, they have often also had a disruptive influence on the ability of countries to develop their own approaches to the M&E of national development projects and programs. Some of the problems include the following:

- Each donor has different information requirements, which are usually defined without reference to information being requested by other donors. Consequently, in projects with funding from various donors (a very common situation for large projects), the implementing agencies may be required to develop separate M&E systems to satisfy the needs of different donors.
- Donors have been mainly concerned with monitoring physical implementation, so they are partly responsible for the very limited attention given to the M&E of project operation and maintenance, the sustainability of benefits, and the assessment of impacts.
- Donors will sometimes make excessive and unrealistic demands with respect to the volume or detail of the information they require.
- Donors will sometimes ask governments to conduct evaluation studies which are of more use to the donor for planning projects in other countries than they are to the borrower country.

The following recommendations are made to overcome these problems:

- Donors should become familiar with the national M&E systems and should try to request information in a format and with a periodicity that can be generated through the existing M&E system.
- Donors should coordinate among themselves to try to standardize information requirements.
- Donors should assist the central M&E agencies to strengthen their capacity through training and technical assistance.

- Donors should try to work through the central M&E agencies and should channel their requests for information through these agencies. Where they coordinate directly with M&E units at the project levels, donors should maintain close contact with the central M&E agency.
- Donors should encourage and assist borrowers in ensuring that adequate budgetary and staff provisions are made for M&E of projects.
- An administrative difficulty in the organization of impact evaluations and studies of project sustainability is that most M&E financing is covered under project loans, with the result that financing ends when physical implementation is completed. Donors should work with governments to develop new financing procedures, so that evaluation studies can continue to be financed after implementation is completed.
- While trying to ensure uniform M&E data requirements, the borrower must also appreciate that each donor is required to obtain certain kinds of information mandated by the donor's board of governors or by the national congress or parliament.

Management Issues in M&E

Management Issues at the National Level

The central M&E agencies will be required to provide information to the following:

- Administrative ministries and agencies responsible for project implementation.
- Ministry of planning or plan implementation.
- Ministry of finance.
- Foreign donors.
- Prime minister's office/cabinet secretary/national economic council.

Since central M&E agencies are required to monitor projects being conducted by different agencies, systems must be organized to permit rapid collection and processing of information for all of these agencies.

The staff of the central M&E agencies should include people who have worked in the major implementation agencies for the following reasons:

- Technical expertise is required for implementation of projects.
- To facilitate formal and informal channels of communication between the administrative ministry and project implementing agency.

The CMA staff, including technicians and economists as well as M&E specialists, should be multidisciplinary, and have implementation experience.

The kinds of monitoring information to be provided to the central M&E agencies on each project should be agreed to with the responsible agency or line ministry. The key indicators of project progress should be based on a CPM or similar network analysis.

The periodicity of reporting will depend on the nature of each project, but the following kinds and periodicity of reports will normally be required:

- Monthly financial reports.
- Quarterly reports containing physical performance and information on areas requiring special attention.
- Annual review of project performance.
- Project completion reports.

The periodicity of reports should be based on the decisionmaking cycles and on a realistic assessment of how long it takes for information to be collected, analyzed and communicated. The danger of collecting too much information or of establishing unrealistically short periods for its collection and transmission must be avoided.

Staff from the central M&E agencies should make regular field visits to observe how the information is being collected and to agree with project managers on what kinds of information can realistically be collected without placing undue strain on staff resources.

The central M&E agencies must ensure that they have access to the feasibility and planning studies conducted before the start of the project.

Careful attention must be paid to questions of the validity, timeliness, and completeness of the information. Validity of the information is likely to be a more serious problem for the social sector than for infrastructure or industrial projects. Computers are essential in the M&E of large projects for accuracy of analysis, management of large data sets, data retrieval, and electronic filing, but managers must be aware of a number of potential problems which are related to computer use in M&E.

- If computers are subject to breakdowns or long down periods due to power failures or lack of service facilities, they can paralyze access to data. Where these problems are prevalent, care should be taken not to become too reliant on computers.
- Concern with programming and data analysis can sometimes divert management away from more mundane problems of data validity and reliability.
- Sometimes qualitative data, which is difficult to analyze by computer, will be ignored, and M&E will be based exclusively on a set of quantitative indicators which may not adequately reflect the true situation of the projects being studied.

In order to ensure wide dissemination of results, reports should be distributed directly to all concerned ministries for speedy action.

Monitoring information should be presented on the principle of "Management by Exception," i.e., those areas requiring decisions should be presented in a succinct way.

At the central M&E agencies, the following kinds of evaluation would be carried out:

- Impact evaluation: to see the impact or change occurring as a result of the project.
- Cost-effectiveness studies to compare the cost of alternative service delivery systems.
- Regular mid-term evaluations.
- Ex-post project audits.

Management Issues of M&E at the Project Level

Project managers require frequent and detailed progress information on all projects. Similar but less detailed information should also be provided to headquarters managers, district-level public representatives, line departments, central M&E agencies, the donor and the auditor. Periodicity of reports will usually be approximately as follows:

- Project manager receives a weekly report.
- Headquarters receives monthly and quarterly reports, others receive annual data.

The project M&E unit should be headed by a person second in line to the project manager. The M&E team should contain a mix of technical staff with experience in the project and people with training in research methods and analysis. Circumstances will usually determine whether the head of the unit is a researcher or a project technician, but ensuring an adequate mix among the staff is important.

Efforts must be made to provide financial and professional incentives to attract good M&E staff, who must be assured of a regular position and promotion opportunities once the project on which they are working is completed.

The M&E unit will often have to address the issue of training recently recruited graduates who have limited project or research experience. Formal and on-the-job training should be combined.

The project manager and the M&E units must agree on the kinds of information required for project supervision and decision-making. This will determine the kinds and periodicity of studies.

Great care should be taken to ensure the validity and reliability of data through:

- Careful design of research instruments.
- Frequent site visits.
- Combining different data collection methods to provide consistency checks.
- Frequent contact with key informants to obtain continuous feedback from all of the main groups involved with the projects.
- Maintaining good relations with project managers and project staff.

Microcomputers should be installed, and monitoring should be based as far as possible on a CPM network. Adequate financial provision should be made for purchasing and installing computers and software.

Effective management information systems should be developed to make full use of computers at the project level.

Results should be presented in a concise and "need to know basis." Over-reporting should be avoided as it hampers timely action and desensitizes the users.

To develop adequate and effective M&E, the information requirements of center and project management must be clearly defined.

Although monitoring studies must be conducted by the implementing agency, evaluation studies will often be assigned to consultants, universities, or other specialized research groups.

Methodological Issues in M&E

Project Characteristics and their Effects on M&E

For the purposes of M&E, it is useful to distinguish between at least three groups of projects: rural development, other social sector projects, manufacturing and infrastructure. The methodological issues will be different for each kind of project.

Rural development projects are dispersed over wide areas, implemented by a large number of different agencies, and they produce outputs that are difficult to quantify and measure. They are usually targeted for specific groups of beneficiaries; the participation of the beneficiaries is usually crucial at all stages of project planning and implementation. Many of the projects are also characterized by uncertainty as to how intended beneficiaries will respond. Finally, the sustainability of the projects depends on the motivation, education, and involvement of beneficiaries as well as budgetary (and sometimes) engineering considerations. All of these factors make outputs and benefits more difficult to monitor and evaluate, make it necessary to rely heavily on labor-intensive methods of data collection, and require great care in the validation of the data.

Infrastructure projects, including many capital-intensive agricultural projects, tend to be located in a particular site and to be implemented primarily by a single agency. Their outputs are normally easy to measure, and precise implementation schedules can be defined (thus facilitating the design of a monitoring scheme). One complication is that many projects are accessible to all people in the locality (for example, roads), so it may be more difficult to identify and contact beneficiaries. On the other hand, monitoring is greatly simplified by the fact that most projects do not require beneficiary participation in their implementation, nor do they involve motivation and educational programs (people do not have to be educated on how to use a road, for example).

Social sector projects such as population, health, education, and housing tend to be spread out geographically, although they will usually be implemented by a single agency. Many of the projects will have a principal objective, which is relatively easy to measure (provision of health services, building of houses, etc.), but also a number of more intangible objectives, such as the creation of community organizations, changing attitudes, etc. The target population is usually well defined in terms of its socioeconomic characteristics, although there may be considerable uncertainty as to how many people will participate. As

with rural development projects, the participation of beneficiaries in project planning, implementation, and sustainability is usually crucial. Finally, beneficiary response is by no means certain and may require considerable education and promotion.

Impact evaluation is most important for rural development and social sector projects, where benefits are harder to quantify and impacts are more difficult to identify.

Identifying the Key Indicators for Each Kind of Monitoring Study

Most of the indicators for input-output monitoring can be obtained from a project implementation network, which should be prepared before the monitoring begins. This should identify the main stages of the project and the timetable for completion of each stage.

In addition to the indicators derived from the project implementation network, monitoring indicators will usually be required on the following:

- The quality of the project inputs and outputs.
- The effectiveness and efficiency of the project-implementing agencies.
- Effectiveness of coordination and communication between the implementing agency and other government and private organizations, and with intended beneficiaries.
- Costs of each component.
- Disbursements and cash flow.

An important and difficult task is to combine indicators of physical progress with indicators of expenditure to compare actual and planned expenditures. This is rarely done due to delays in obtaining financial data and in presenting it in terms of cost-bearing components.

Indicators of project operations and maintenance will normally include the following:

- Stability of the project management agency (staff, budget, etc.)
- Budgetary provision for maintenance of physical infrastructure and plant.
- Indicators of the condition of infrastructure and equipment.
- Records of maintenance (both to assess how regularly maintenance is actually carried out and also as an indicator of the condition of infrastructure and equipment).

Continued accessibility of project services will be monitored through the following:

- The numbers of beneficiaries who receive services each month or year.
- Comparison of the actual socioeconomic characteristics of project beneficiaries with the profile of intended beneficiaries.

Data Collection and Issues of Reliability and Validity

Many central monitoring systems suffer from the weakness that they rely almost exclusively on data sent in from local offices, and which they accept uncritically and without any attempt to validate. Central M&E agencies must allocate time and resources to assessing the validity and reliability of data.

Field visits are an essential component of a monitoring system, both to check the validity of data and also to ensure that the most appropriate indicators are being used.

For all kinds of projects, a careful assessment should be made to ensure that appropriate, reliable, and valid indicators are being used.

For rural development and social sector projects, combining quantitative and qualitative indicators and comparing information obtained from different indicators as a form of consistency check is highly desirable. Some of the qualitative methods of data collection can include the following:

- Direct observation (for example, the condition of roads or the quality of house construction).

- Interviews with key informants in the communities and project, agencies.
- Participant observation in which an observer lives for some time in a project so as to understand how the project and the implementation agencies are perceived by intended beneficiaries.
- Group discussions with beneficiaries.

It is essential to motivate project staff to provide timely and accurate data by providing them feedback and by demonstrating that the information is used to help managers overcome their problems.

The Main Kinds of Evaluation Studies

Three main kinds of evaluation studies can be used:

- Impact evaluation to assess whether the project has produced the intended impacts on the target population.
- Effectiveness analysis to compare the costs of delivering a set of outputs or producing benefits through alternative projects or delivery systems.
- Process evaluation to assess the overall effectiveness and efficiency of the project implementation process and to understand how project performance is affected by external political, social, and economic factors.

Project managers and planners must decide which of these kinds of studies is most appropriate in a particular context, since each type provides information that can be used in making different kinds of decisions. Impact evaluations are used to assess whether projects are achieving their ultimate objectives, and who does and does not benefit from them; effectiveness analysis is used to help planners and managers to select the least-cost alternative.

Methodological Issues in Conducting Impact Evaluations

There are severe limitations on the applicability of the quasi-experimental design (QED) models of impact evaluation advocated in most evaluation text books, for the following reasons:

- For many kinds of projects, it is impossible to find a comparable control group, particularly for projects intended to cover the whole target population (for example, an integrated rural development project).
- Many projects (such as a major irrigation project or an agriculture area development project) gradually develop over several years, so that it is impossible to define clearly the "before" and "after" conditions required for QED analysis.

Impact evaluations face many sampling problems, which may limit their use in certain circumstances:

- It may be difficult to separate the project and control groups (for example, in an integrated rural development project a particular village may receive some services and not others).
- When a project begins, it may be difficult to know which families will be beneficiaries.
- A representative control group may be difficult to find. For example, families who use the services of a maternal and child health care center may have different characteristics from the families who do not use it.
- In areas with high geographical mobility or where addresses are not clearly defined, it may be difficult to locate the original families several years later to re-interview them.

Here are several common measurement problems, which can be difficult to overcome:

- Many studies, for reasons of cost or the preference of the researchers, rely on a single method of data collection. Since all methods include bias, it is strongly recommended that several different data collection methods be used to provide a consistency check.

- The evaluation should try to combine both quantitative and qualitative methods. When this is done, care should be taken to ensure that equal weight is given to both, since there is a tendency to ignore much of the qualitative data at the analysis stage (particularly when a computer is used).
- It is important to find a way to include indicators for variables that are difficult to measure (for example, indicators of satisfaction with the project, opinions about different programs, or measures of health status). All intended impacts must be assessed, even when some of them can only be included in a descriptive or qualitative way.
- A careful assessment must be made before deciding to monetize indicators of benefits (i.e., reduce to a monetary value). Although this approach greatly facilitates the analysis (for example, by permitting the use of cost-benefit analysis) in most South Asian countries, housing and land markets do not operate freely; hence, indicators such as increases in rent, can be very misleading.
- While the computer is an essential tool in the analysis of many studies, care must be taken to ensure that the requirements of computer analysis do not eliminate much of the qualitative information the evaluation would like to examine. Methods must be developed to ensure that all important sources of information are included in the analysis and final reports.

It is essential for the evaluation design to have the flexibility to detect unexpected outcomes. This can be done through a process evaluation, which combines the analysis of project records, sample surveys, direct observation, interviews with key informants, and participant observation.

Methodological Issues in Cost-Effectiveness and Cost-Benefit Analysis

While there was not enough time to discuss these methods in detail, several general recommendations were made. From the point of view of the project manager, and the policymakers and planners, cost-effectiveness analysis will often be a more useful tool than impact evaluation for the following reasons:

- In order to select between different projects or service delivery systems it is essential to have information on the costs of producing required outputs. This information can be obtained from cost-effectiveness or least-cost analysis, but is not provided in impact evaluation.
- Cost-effectiveness analysis can provide results in a timely manner, so that the information can be of practical utility in decisions about future projects. The results of impact evaluations will normally not be available for several years after a project begins to operate, by which time decisions on future projects will usually have been made.
- A practical problem in the use of cost-effectiveness analysis is the choice of the alternative options with which the project is to be compared. Many projects are unique in their geographical location, range of services offered, etc., so that it may not be possible to identify a comparable alternative program.
- The weakness of cost-effectiveness analysis, if used on its own, is that it does not assess the extent to which a project has achieved its objectives and produced the desired impacts. Services such as water, health, roads, etc., may be delivered in a timely and economical manner, but they may not achieve their desired impacts on income, health, employment, etc. It is recommended, therefore, that cost-effectiveness analysis be combined with impact evaluations.

The Organization of M&E Training

The Target Populations for M&E Training

M&E are intimately related to all stages of project planning and implementation, so basic familiarity with M&E concepts and procedures is required by all of the following groups:

- Policymakers.
- Planners.
- Line ministries (the specific training needs will depend on the nature of each sector).
- Integrated courses for officials, managers, and beneficiary organizations at the district or local levels.
- Intended beneficiaries of projects.

For many of these groups, M&E will be integrated into more general courses also covering project planning and management.

More specialized courses will be required by the staff who will work in the M&E units. The complexity of these courses will obviously be greater for national-level than for local-level M&E staff.

The Institutionalization of M&E Training

It is essential to develop a national M&E training strategy rather than *ad hoc* courses from time to time. This strategy should be based on a conceptualization of the stages of project planning and implementation at the national, sectoral, and local levels, and on a careful training needs assessment.

An assessment should be made of the M&E training capabilities of the principal training institutions, and a decision made as to how their capacity must be strengthened and whether any new institutions need to be involved.

Programs should be developed to train trainers. These may be conducted within the country; initially it may be necessary to send key trainers overseas. It may be necessary to establish a regional training network to make maximum use of the limited number of training specialists in the areas of M&E.

The universities must be involved in some of the more specialized forms of M&E training. In many countries, very little use is made of universities in these areas.

All participants in M&E training programs should be required to prepare action plans of how they will implement their training, and regular follow-ups should be conducted to assess the impact of the training in the practical work of trainees.

The quality and utility of the training programs should be assessed continuously.

The Content of M&E Training Programs

While the content of courses will vary according to the audience, following are some of the areas to be stressed:

- Conceptual framework for understanding the linkages between M&E, and project planning and implementation. M&E procedures at each stage of the project cycle.
- Project completion reports and project audits.
- Use of networking techniques as a framework for monitoring.
- Methods of data collection and validation.
- Defining the objectives of studies and the way in which the results will be used.
- Methods of data analysis.
- Use of computers.

- Presentation of study results.
- Use of M&E findings.
- Field visits and practical work experience.
- Use of case studies.
- Monitoring and evaluating the poverty impact of programs.
- Defining follow-up and action plans.

Short seminars must be designed to help policymakers understand the crucial role of M&E, and to obtain feedback on their information needs.

All training programs must stress the importance of human relations in ensuring the success of M&E. As M&E are often seen as a threat (or a waste of time), it is essential to gain the confidence of the project staff who must provide the information and who are the intended users of the studies.

10

NEW DIRECTIONS FOR MONITORING AND EVALUATION IN SOUTH ASIA

One of the main conclusions of the Seminar was that there is an increasing awareness throughout the subcontinent of the need for improved M&E systems at national, provincial, and local levels. Resource constraints and the increasing complexity and intersectoral nature of development programs emphasize the need for timely and precise information on the progress, efficiency, and likely benefits of projects and programs. Considerable progress has been made during the past five years in developing national M&E systems, and the basic elements of the systems are now in place in most countries. The seminar identified a number of key issues, which need to be addressed in order to improve the scope and performance of the M&E systems. The following are some of the likely new directions for M&E in South Asia during the next five to ten years.

Performance Evaluation⁵⁸

Public enterprises play a major role in all sectors of the South Asian economies. Many of these enterprises have been protected from private sector competition through monopolies, tariffs, or import controls, and many operating at a loss have been kept alive through massive government subsidies. Recent concern to stimulate economic growth has resulted in attempts to create a more competitive environment in which public enterprise managers will have incentives to improve efficiency, and at the same time to develop evaluation systems to assess performance. Considerable interest has been created by the systems of performance evaluation being developed in Pakistan, India, and Bangladesh. Under these systems, measurable targets are negotiated with enterprise management at the beginning of each year. Ideally, the targets are defined in terms of profitability; when this is not possible, indicators of output will be used. It is possible to use several indicators (other indicators include employment generation and energy conservation) and to assign a weight to each one. At the end of the year, performance is evaluated on each indicator, and bonuses are awarded to enterprise management according to how well the enterprise has performed on each indicator.

Several features of this system have attracted attention. First, it is one of the few evaluation systems which reward people for good performance rather than just punishing or criticizing them for bad performance. Second, the indicators and their relative weights can be varied to reflect changing national priorities. For example, energy conservation can be given a higher weight in times of rising oil prices. Third, the system is "results oriented," since it evaluates performance or outputs and thus encourages initiative and risk-taking on the part of managers. This compares favorably with many monitoring systems which focus on correct use of resources and hence encourage managers to be overly cautious and not to deviate from an established plan.

There is interest in extending performance evaluation beyond industry and manufacturing to other economic sectors and even to social sectors. However, a number of important methodological and operational issues remain to be resolved. It is difficult to apply the system fairly in centrally planned economies (i.e., most of South Asia) where prices, and

58. See Siddiqui (1987).

often supply of inputs and outputs are determined administratively and often without reference to market forces. Thus, the financial profitability of an enterprise may fluctuate dramatically from one year to the next for reasons beyond the control of enterprise management. It is also difficult to make the systems fair to all managers. Many enterprises are subject to heavy administrative controls, which severely restrict the freedom of action of the manager.⁵⁹ In many enterprises, output rather than profitability must be used as the indicator, and as the state is often the sole purchaser of the enterprise's products, output variations may be largely unrelated to managerial performance.

M&E in Decentralized Development

There is a move throughout the subcontinent to decentralize project planning and management from the national to the local levels. This is often (but not always) associated with an increased involvement of intended project beneficiaries in the planning and management of projects. One logical component of decentralization should be "participatory evaluation" (discussed below) in which beneficiaries are involved in assessing how well projects are managed and whether they have achieved their objectives. However, to date very little progress has been made in this respect. Decentralization will also require the development of simple and economical M&E systems which can be implemented at the local level without the need for research specialists. Issues of quality control and timely communication of data will also arise. Where necessary infrastructure exists, there is potential for microcomputer networking systems to link local planning and implementing agencies to provincial and national agencies.

Strengthening Ex Post Evaluation and Project Auditing

In order to ensure accountability to donors and national funding and planning agencies, it is necessary to improve the preparation of project completion reports (ideally by the implementing agency) and the systematic auditing of these reports (normally by the national planning agency, often in coordination with the auditor general's office). Once the project completion report preparation procedures are operating, a national data bank needs to be developed, so that the experience from completed projects can be used in the appraisal, design, and implementation of new projects.

Monitoring Project Sustainability and Evaluating Project Impacts

Most M&E ends when project implementation is completed. Little systematic information is obtained on operations and maintenance or the extent to which projects have achieved their intended benefits. There is a need to develop institutional mechanisms and cost-effective methodologies to monitor project sustainability and to assess the impacts of a small number of selected projects or programs.

Participatory Evaluation

Although there is increasing recognition of the need to involve intended beneficiaries in the selection, design, and implementation of development projects, very little attention has been given to beneficiary involvement in the M&E of projects. This is likely to become an important issue in the future, particularly as attention focuses on improving project sustainability.

59. In Bangladesh, for example, many enterprise managers have very little control over their labor supply, due to political pressure to create new employment opportunities. In a recent EDI seminar on "Project Sustainability" in Bangladesh, several managers of public enterprises in sectors such as textiles reported that their labor force was at least twice as large as in comparable private enterprises.

Computerization of M&E

The advent of microcomputers is beginning to produce a dramatic change in the organization of M&E. At a relatively modest cost, it is possible to establish a network of interconnected terminals so that data can be transmitted and accessed electronically, thus eliminating many stages of the reporting and compilation process. "User-friendly" software is readily available for project planning and for basic monitoring. The systems are only just beginning to be introduced in South Asia. It is too early to assess their performance, but the potential is clearly enormous. Despite the potential, a number of issues are beginning to emerge.

First, unreliable power supply and difficulties of acquiring spare parts and servicing are likely to create a number of mechanical and logistical constraints on the use of computers. A second and potentially more serious issue is that computerization is changing the nature of project monitoring. The easy transmission and processing of data means that a much higher proportion of staff time is spent in the central office with fewer field visits and hence the danger of the central agency losing touch with what is really happening in the field. There is also a tendency to rely more heavily on the use of simple quantitative indicators that can be easily reported and processed. Qualitative and descriptive data are often dropped because the information is difficult to process. Complex activities such as institutional development are assessed through a set of numerical indicators (number of meetings, number of people attending meetings etc) which can give a very distorted and limited assessment of what is happening. A third related problem is the lack of quality control over data due to reduced contact between central office and the local staff who generate the data and prepare the reports on which the analysis is based. There was a widespread belief among seminar participants that the quality of much of the reported data was questionable. However, none of the agencies had developed effective systems for quality control of data.

Increasing numbers of agencies are beginning to use computerized systems of project planning and control. These systems can lower costs and reduce the technical expertise required to implement planning and control systems thus making it technically feasible to integrate M&E more closely with planning. Until now, however, relatively little progress has been made towards the integration of M&E and planning, and much of the potential value of the data which is collected on project implementation and impacts is not used for planning purposes. For example, it is quite common for a second project to be planned without making use of any of the information the first project had produced on questions such as time and cost overruns.

If the problems of quality control of data can be resolved, the new computer technologies can greatly increase the utility of M&E studies to planners and financial analysts, as well as to project managers.

Improving the Effectiveness of M&E as Management and Decisionmaking Tools

Seminar participants unanimously agreed that the full potential of M&E data is rarely used and in many cases much of the available data is not used at all. How to make effective use of the data is a central issue. A number of questions have to be addressed. First, how to ensure that stakeholders are correctly identified and that the M&E systems are designed to provide the kinds of information they need, when they need it, and in an easily understood and usable form. Second, a system of priorities has to be established between the competing demands of stakeholder.

Third, it is essential to clarify which M&E studies are intended to aid project managers and which to control them. A common weakness is to assume that the same monitoring or evaluation study can be used both as a management tool and a way for central government authorities to control or evaluate management. This dual objective will almost always fail.

Staff can only be expected to express their views freely if they know that the information they give will not be used against them or their immediate managers.

Fourth, every effort should be made to make the collection and use of M&E data as nonthreatening as possible. Staff and managers should be kept informed as to what data is to be collected and how it will be used. Staff should be given the opportunity to review and comment on studies before they are finalized. If staff are involved in the design of studies and if they have the opportunity to comment on the results, they are much more likely to cooperate in the design and execution.

Fifth, the M&E system must include mechanisms for the rapid identification of needed studies and for conducting and reporting on the studies. Often a study is conducted very rapidly, but a great deal of time is then spent analyzing the data and preparing the report. Researchers are concerned about making sure the report is perfect before it sees the light of day, with the consequence that information that might have been of considerable operational value is out of date before it reaches management.

Finally, management must ensure that reports rapidly reach the people who can use them and that there is a regular review mechanism for discussing reports and deciding what actions should be taken on the study findings and recommendations.

EDITORIAL NOTE

The country chapters are based on information derived from the papers contributed to the seminar and on the discussions that took place during the seminar. Additional information was obtained from published or mimeographed reports, reports of various institutions, and personal interviews. A major source of reference was the review paper by Adil Khan, "A South Asian Regional Study on Current Thoughts and Practices in Monitoring and Evaluation," which was commissioned for the seminar and which will be published by EDI. However, the present authors are responsible for any inadvertent errors or inaccuracies, and for the interpretation of the information. The sources listed below are not available from EDI. Inquiries and requests should be addressed directly to the authors.

Bangladesh

- | | |
|------------------------|--|
| Mr. S. A .S. H. Taifur | "Planning Process, Monitoring and Evaluation in Bangladesh" |
| Mr. Abdullah Al-Faruq | "Role and Effectiveness of Monitoring for Implementation of Development Projects in Bangladesh" |
| Mr. Liaquat Hossain | "Proposal for Reorganization of Monitoring Unit and Program Directorate of Bangladesh Water Development Board" |
| Mr. Jainul Abedin | "Planning Academy's Approach to Monitoring and Evaluation in Bangladesh" |

India

- | | |
|--------------------|--|
| Mr. M. M. Goyal | "Organization and Methodology of Monitoring, Ministry of Programme Implementation (Government of India)" |
| Dr. Udesb Kohli | "Monitoring of Development Projects in India" |
| Mr. M. Thyagarajan | "Data Management and Integrated Planning and Monitoring in the Indian Context: The Current Need" |
| Mr. V. Sadamate | "Monitoring and Evaluation of Training & Visit Projects in India" |

Nepal

- Mr. Gauri N. Rimal & "Monitoring and Evaluation of Development"
Mr. Mohen Raj Sharma "Projects in Nepal"
Mr. Rajendra Suwal "Monitoring and Evaluation System of Projects and Programs in Nepal"
Mr. Prakriti Shumsher & "Monitoring and Evaluation of
J. B. Rana Agricultural Projects in Nepal"

Pakistan

- Dr. M.A. Aghai "Project Appraisal, Monitoring and Evaluation of Development Projects and Schemes in Pakistan"
Dr. Mutawakkil Kazi "Monitoring and Evaluation of Development Activities in the Sind Province"
Mr. A.R. Siddiqui "Monitoring and Evaluation in Experts Advisory Cell"
Mr. Khalid Mohtadullah "Monitoring and Evaluation Programs at the Water and Power Development Authority Training Academy in Pakistan"

Sri Lanka

- Dr. V. Ambalavanar "Central Monitoring and Evaluation in Sri Lanka: Past Experience and Present Plan"
Mr. P. B. Wanninayake "Monitoring and Evaluation of Development Projects in Sri Lanka: Past Experience and Present Plan"
Mr. K. A. L. Premaratne "The Experience of the National Planning Division of the Ministry of Finance and Planning in Monitoring and Evaluation of Development Projects in Sri Lanka"
Dr. A. Attanayake "Monitoring Experience in the Accelerated Mahaweli Project, Sri Lanka"

Burma

- Daw Aye Aye Mar "Monitoring and Evaluation System of Project Appraisal and Progress Reporting Department, Burma"

China

- Mr. Zhang Xiaogiang "Monitoring and Evaluation System in China"

Annex A

PARTICIPANTS IN THE REGIONAL SEMINAR ON MONITORING AND EVALUATION OF DEVELOPMENT PROJECTS

Lahore, Pakistan, April 5-16, 1987

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Mr. P.K. Basu
Secretary
Ministry of Programme Implementation

World Bank

Dennis Casley
Adviser on Monitoring and Evaluation
Agriculture and Rural Development

Christian Polti
Operations Evaluation Department

Seminar Directors

Viqar Ahmed (PASCOL)
Michael Bamberger (EDI)

Annex B

SEMINAR PROGRAM

Sunday April 5

Inaugural session: Seminar opening by invited speaker, introduction by seminar co-director and introduction of participants.

Module 1: Monitoring and Evaluation Systems at the National and Sectoral Levels

1. Approaches to monitoring and evaluation in the South Asian countries , Adil Khan Consultant).
2. The relationship between national development strategies and the approaches to monitoring and evaluation - Group Discussion.
3. The relationship between national development strategies and the approaches to monitoring and evaluation - Group Presentations.

Monday, April 6

1. Monitoring and evaluation of programme implementation in India
Mr. P.K. Basu, Secretary, Ministry of Programme Implementation, India
2. Monitoring and evaluation of programme implementation in Pakistan
Mr. Muhammad Husain, Planning Commission, Pakistan.
3. General discussion on approaches to monitoring and evaluation in India and Pakistan.
4. Discussion continues.

Tuesday, April 7

1. Performance Auditing in Pakistan
Mr. Riyaz Bokhari, Auditor General, Pakistan
2. The Role of the General Accounting Office in the United States and Lessons for Asia.
Eleanor Chelimsky, Director, Evaluation and Methodology Division, United States General Accounting Office (GAO).
3. General discusssion of the approaches of the Pakistan Auditor General's Office and the GAO.
4. Discusssion continues.

Wednesday, April 8

1. **The World Bank approach to ex-post evaluation and project audits**
Christian Polti, Chief, Agriculture Division, Operations Evaluation Department, World Bank.
2. Ex-post evaluation and project audits continued
3. Sectoral approaches to monitoring and evaluation: Agriculture and Rural Development - Group Discussion.
4. **The Agriculture and Rural Development sectors continued: Group presentations and general discussion.**

Thursday, April 9

1. Review of Module 1: Group Discussion
2. Recommendations on Monitoring and Evaluation Systems: Group Presentations.

Module 2: Management Issues in Monitoring and Evaluation

3. **Management issues in monitoring and evaluation**
Michael Bamberger (EDI); Adil Khan (Consultant).
4. Group discussion of the following topics:
 - A. Identification of stakeholders and information needs for different kinds of monitoring and evaluation studies.
 - B. General and sectoral issues in data collection for monitoring and evaluation.
 - C. Data analysis and the role of computers.
 - D. Presentation and use of monitoring and evaluation studies.

Sunday, April 12

1. Group discussion continues
2. Group presentations on Topics A and B.
3. Group presentation on Topics C and D.
4. Groups prepare written recommendations on the topics discussed.

Module 3: Methodological Issues

Monday, April 13

1. **Sectoral issues in project monitoring.** Adil Khan (Consultant)
Following the presentation groups will be formed to review the methodological issues in the design and implementation of monitoring studies in the following sectors:

- A. Agriculture and rural development
 - B. Other social sectors
 - C. Infrastructure (roads, railways, irrigation)
 - D. Public enterprises and other industrial projects.
2. Group discussions continue.
 3. Presentations by Groups A and B.
 4. Presentations by Groups C and D.

Tuesday, April 14

1. Methodological issues in project evaluation.
Michael Bamberger (EDI)
2. Group discussion of methodological issues in project evaluation in the four sectors discussed on April 13.
3. Group discussions continues.
4. Group presentations on Sectors A and B.

Wednesday, April 15

1. Group presentations on Sectors C and D.

Module 4: Training needs in the areas of monitoring and evaluation

2. Monitoring and Evaluation Training needs at the national level: Group discussion.
3. Monitoring and evaluation training needs at the sectoral level: Group discussion of the four sectors discussed previously.
4. Group presentations and discussion.
5. Seminar evaluation

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WORLD BANK PUBLICATIONS OF RELATED INTEREST

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Lawrence F. Salmen. Oxford University Press.

Project Monitoring and Evaluation in Agriculture.

Dennis J. Casley and Krishna Kumar. The Johns Hopkins University Press.

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The Collection, Analysis, and Use of Monitoring and Evaluation Data.

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Putting People First: Sociological Variables in Rural Development.

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Michael Bamberger and Eleanor Hewitt. World Bank Technical Paper 53.

A Manager's Guide to "Monitoring and Evaluating Urban Development Programs: A Handbook for Program Managers and Researchers."

Michael Bamberger and Eleanor Hewitt. World Bank Technical Paper 54.

The Role of Community Participation in Development Planning and Project Management.

Michael Bamberger. EDI Policy Seminar Report 13.