CASE STUDIES OF EVALUATION AND MONITORING IN AID PROJECTS: A HANDBOOK

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The views and interpretations expressed in this report are those of the authors and should not be attributed to the Agency for International Development.

PREFACE

Preparing a handbook of cases is a challenging and rewarding task because it provides an opportunity to "learn while doing." Producing a set of cases is not a solitary undertaking but rather requires the committed efforts of a number of people. Before presenting the cases, it is my pleasure to thank the colleagues that have provided their skills and time to help create this handbook. Credit for originating the idea and providing the financial and technical guidance is due Nena Vreeland, PPC/CDIE/AID. Her enthusiastic comments and substantive contributions made this process enjoyable and a real learning experience. Dr. Marcus Ingle, Coordinator of the International Development Management Center (IDMC), provided overall technical guidance for the project and authored one of the cases. His continued support and expertise provided the necessary foundation for this effort. There would be no case book without cases, and the authors, Dr. Derick Brinkerhoff and Terry Schmidt, of IDMC, and Dr. Merlyn Kettering, of the Development Program Management Center, USDA, were a pleasure to work with and provided interesting and instructive cases. Judy Gilmore, AID/FVA/PPC, contributed the evaluation reports and supplementary information for three of the cases, and her insights and suggestions were most helpful. Several staff members at IDMC provided support without which this handbook would not have appeared. Craig Tenney's efforts in reviewing the cases and thinking through the analysis process during the life of the project, Gaye Wagner's encouragement and editing during the preparation of the report, and Arti Kennedy's and Denise Smick's support in producing the manuscript have given new meaning to the phrase, "team effort."

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FOREWARD

Conducting program evaluation in developing countries often presents challenges that conventional evaluation approaches are unable to meet. Evaluation is an important program management tool and AID tries to transfer skills for using it as such to recipient country partners. This aim implies that a given evaluation approach should be feasible, practical and sustainable from the perspective of limited host country resources.

Accordingly, AID encourages a search for alternative evaluation methods, or combinations of methods, that are appropriate for developing country contexts, that will serve the information needs of both AID and counterpart managers, and that can be adapted to counterpart operations and decision-making. Of particular interest to AID are information systems, useful for both monitoring and evaluation, that can be built into the routine processes of project implementation and management. AID-supported projects and programs provide opportunities to set up and operate such systems, and to expose counterparts to their practical utility, in ways that promote their continuation when specific AID funding ends.

Actual AID experience in developing and applying alternative approaches can illustrate to project designers and managers, more concretely than overall guidance, some of the realistic opportunities, difficulties and costs involved. For this reason PPC/DCIE commissioned this first set of studies of recent cases in program evaluation, and in systematic ways of bringing evaluative information to bear on management decisions and action. Readers are encouraged to comment on the cases and to submit suggestions for cases that could be considered for a subsequent collection. These can be addressed to AAA/PPC/CDIE, US Agency for International Development, Washington, DC 20523.

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EXECUTIVE SUMMARY

Case Studies of Evaluation and Monitoring in AID Projects: A Handbook illustrates approaches to evaluation and monitoring which are sensitive to the opportunities and limitations of a field setting. The handbook is intended to provide ideas to help the field manager design and implement practical, useful monitoring/evaluation systems.

Seven AID cases using innovative evaluation methods are examined here, six of them are applications in management improvement projects and Food for Peace programs, the seventh is a post hoc benefit-cost analysis. Elements of the monitoring and/or evaluation systems which have been examined in these cases include:

- The role of evaluation/monitoring in the project,
- Major characteristics of the design,
- Data requirements, collection and analysis, and
- The methodology.

The monitoring/evaluation approaches used in these cases differed from traditional methods in a number of ways. Qualititative as well as quantitative data were used; monitoring/evaluation was treated as an ongoing process, rather than a discrete event; host country personnel were trained in requisite skills; and all major actors were involved throughout the design and implementation of the system. These features were present in varying degrees in each of the systems examined: all were qualities contributing to system flexibility and an understanding of both process and results which reached beyond the evaluation contractor/team. Some of the cases were more successful than others in accommodating the dynamics of their field environments, however.

Variables which seemed to influence the success, operationally and politically, of the monitoring/evaluation systems were: the presence or absence of a management information system, the ability of the design to accommodate change, and the role of the users and producers throughout the process.

The cases present no formulas for designing a monitoring/evaluation system guaranteed to yield an effective program management tool, but they do offer some direction for designing a feasible strategy to that end.

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INTRODUCTION

This handbook is designed to address concerns within the Agency for International Development (AID) about the limited guidance available to Project Officers on monitoring and evaluation. Through case studies, the handbook illustrates how some field managers have approached these tasks and provides an analysis of the techniques used.

A number of problems face the Project Officer when trying to apply traditional evaluation and monitoring techniques in developing country settings. Traditional program evaluation methods many times rely on quasi-experimental designs that require extensive data. Often the evaluation process is extremely long, requiring data that are difficult to obtain. As a consequence, the evaluation may bog down under its own weight. Another issue complicating field evaluation efforts is the inability of generally favored quantitative techniques to provide adequate information on the phenomena being evaluated. Qualitative data are frequently essential, such as in the study of institutional development and management improvements.

Just as evaluation presents difficulties in field applications, so does monitoring. Identifying appropriate activities to monitor and devising practical means for gathering data can be unusually challenging in the developing country context. Yet, investing the effort in good monitoring practices can increase the chances of identifying ineffective activities, increase efficiency in the use of project funds, and increase the probability of project success. With good monitoring, Project Officers and counterpart managers can have a better sense of their project's status and greater control in both correcting problems and reinforcing successes throughout the project's life.

METHODOLOGY

The seven cases selected for this handbook were chosen on the basis of several criteria. First, the cases were limited to AID funded projects or programs. Second, each case was supposed to present some interesting and/or innovative approach to evaluation or monitoring of a project or program. From the range of possible projects and programs, it was decided that for an initial handbook of this type it would be beneficial to focus on a limited range of projects. Four cases related to management improvement projects and two cases related to Food for Peace programs were selected for inclusion because of the readily available information on these projects. In addition, a summary of cases involving benefit-cost analysis was included to provide a contrast to the other cases.

A set of guidelines was developed to help the authors structure their cases and address common questions and issues so that there could be some comparability after the cases were written. Actors responsible for

developing the evaluation and monitoring systems in the four management improvement projects wrote those cases. Information for the other three cases was obtained from project evaluation documents and from interviews with the AID/Washington Evaluation Officer involved with the projects and written up by the editors of the handbook. The cases were reviewed and edited by the staff of the International Development Management Center, Office of International Programs, University of Maryland College Park and returned to the original authors and contributors for review, correction, additions and comment. Any errors in fact or interpretation are the responsibility of the editors.

OVERVIEW OF THE CASES

The seven cases selected for this handbook represent projects in which AID tried 'different' ways of accomplishing monitoring and evaluation. These cases were different for a variety of reasons, including the types of data collected; the process used in design and implementation; and the scope of the evaluation.

Four of the cases concern management improvement projects:

- a management improvement effort in an agricultural production enhancement program in Portugal,
- a management improvement project in Haiti's Ministry of Plan,
- a management training project for local government officials in Indonesia, and
- a financial management improvement project in the Sahel.

Two cases are from the Food for Peace Program:

- an impact evaluation of a PL 480 Title II Program of Nutritional and Health Protection in Senegal, and
- a planning, monitoring and evaluation system for a PL 480 Title II Food for Work program in India.

The final case is a post hoc benefit-cost analysis used on five projects (in Upper Volta, Honduras, the Dominican Republic, Brazil, and Peru) in which Private Voluntary Organizations (PVO's) assisted microenterprises.

When examining a monitoring and/or evaluation system, it is useful to determine whether there is an overall framework or design and whether there is a management information system in place. Of the seven cases presented, three of them (Sahel, Portugal and India) developed a management information system to monitor the project or program.

A management information system provides a potentially valuable resource for evaluation. Information collected for monitoring is available for

evaluation without additional investment of resources. As a practical matter, however, oftentimes such factors as lack of political support or predelictions of project personnel lead to incomplete use of the management information system as an evaluation resource. The India case was the only one in which the monitoring and evaluation system was implemented as an integrated system. The remaining cases did not benefit from management information systems (Senegal, Benefit-Cost Analysis, Indonesia and Haiti), but in all of them, monitoring and/or evaluation were guided by a conceptual framework.

Another important issue to examine when looking at the cases is design change over time. In at least five of the cases, the capacity for redesign to accommodate changing conditions and data requirements was built into the project.

In the India case, the monitoring and evaluation design was in a state of constant negotiation. The system was redesigned regularly based on project experience and continuous dialogue between project participants and personnel. In the Portugal case, the monitoring system was continually being revised at the regional and central levels. This resulted in considerable design change over time. The Sahel monitoring and evaluation system also incorporated system redesign as an ongoing process, although not as successfully as India and Portugal.

The impact evaluation carried out in Senegal changed over time due more to operational considerations than to design characteristics. Because data collected for other purposes were already available and host country personnel were willing to collect different kinds of data than originally planned, the evaluation design was changed to accommodate this. The original design, which called for a biochemical evaluation of nutritional impact from clinical examinations, was changed to include more data on the nutrition centers and on the families both in and out of the program.

The monitoring system being developed in Haiti is constantly being revised to meet changing information needs of clients and of the project itself. The data gathering techniques do not change over time, but the focus of the monitoring system does change. Because of the post hoc nature of the Benefit-Cost Analysis case, and the single-activity focus of the Indonesia case, these evaluation systems did not change much from design to implementation.

When reflecting on the design of a monitoring or evaluation system, it is important to ask for whose benefit is the information being collected. Other important questions are: who is identified with having initiated the system and who with supporting it?

In most projects or programs, there are multiple users of monitoring and evaluation information. The cases presented here are no exception. Since all of the cases are based on AID-funded efforts, AID is a primary or secondary user of the information generated by each of the systems. The cases can be placed on a continuum based on the level of AID's use of the information in relation to other actors. At the high end of the continuum

is the Benefit-Cost Analysis case which was undertaken to help AID evaluate and make policy decisions about their PVO Microenterprise projects. The monitoring system in Haiti was designed primarily for use by AID/Washington and the consultant's other institutional affiliations in the U.S. Other than as a tool for self guidance, this monitoring effort does not seem to be geared toward information sharing with host country project personnel.

The systems presented in four of the cases would fall in the middle range of a continuum. The Sahel, Portugal, Senegal and India cases were designed to meet the needs of multiple actors, only one of which was AID/Washington. In the Sahel and Portugal cases, the information was also used by the project personnel, the USAID mission and the contractors back in the U.S., as well as by the host country governments. In Senegal the evaluation was designed to feed information back to project personnel in the host country, but both the USAID mission and AID/Washington were interested in the results. India presents a case in which the project participants or beneficiaries share in using the monitoring information along with the typical users noted in the other cases. The Indonesia case presents the other end of the continuum, where the USAID mission was not particularly interested in the results of the evaluation. The host country project participants and their supervisors were the primary users of the evaluation information.

There is little variation among the cases regarding the agent who initiated the monitoring and/or evaluation system. In four cases (Sahel, Portugal, Indonesia and Haiti), the contractor providing technical assistance in management or management training initiated the monitoring and/or evaluation systems. In one case, (Benefit-Cost Analysis) the system was initiated by an AID/Washington office and in another (India) by a USAID mission. In the remaining case (Senegal), the evaluation effort was initiated jointly by AID/Washington offices and a USAID mission.

The pattern of support for the monitoring and evaluation systems can also be put on a continuum. India presents the extreme case in which everyone, from project beneficiary to the top officers of AID and the implementing PVO (Catholic Relief Services) supported the monitoring and evaluation system. In Senegal, the system was also supported by all key actors, but the project participants were not continuously involved in the process as was the case in India. In both the Portugal and Sahel cases, the monitoring and evaluation systems were supported by the management contractors and host country management specialists trained in the management information systems, but in both cases support was lacking from key actors.

In the Portugal case the system was never completely accepted by the ministerial level coordinating group and in the Sahel the project team leader was not comfortable with the system. In the Haiti case, the monitoring system was not necessarily designed for host country personnel, and therefore could be said to be supported by all key actors, i.e., AID/Washington, USAID/Haiti and the consultant's institutional affiliations in the U.S. (IDMC/UMCP and DPMC/USDA). Because of the post hoc nature of the Benefit-Cost Analysis case, the major consumer of the evaluation information, the initiator of the system, and the major supporter were one and the same, AID/Washington. There is some evidence that the PVO's

involved with the Microenterprise projects are coming to see the benefit-cost analysis technique as valuable, but support for the method is not well diffused at present.

DISTINGUISHING CHARACTERISTICS

Each of the seven cases had characteristics which merit attention from project personnel engaged in monitoring and evaluation:

- In Portugal the selection and training of Ministry of Agriculture and Fisheries (MAP) staff to serve as internal management specialists was a step toward assuring sustainability of the management improvement effort beyond the project's life. The monitoring and evaluation system relied on an integrated approach in which the information collected for monitoring could also be used in periodic evaluations. In addition, the use of microcomputers, primarily in the budgeting process, also allowed for the integration of data collected at the regional level to be quickly aggregated at the national level. The use of microcomputers as a 'new' technology also aided in the acceptance of a new management information system by host country project personnel.

- In the Sahel case the most striking feature is the iterative process used to develop and implement the monitoring and evaluation system. The monitoring system was designed to be constantly redesigned, and thus responsive to the changing needs of the project.

- The Indonesia case is noteworthy for using program participants to develop the criteria for evaluating the training program. Host country project personnel developed their own action plans in a training workshop, and these plans were later used to evaluate the effectiveness of the workshop. Another important feature was the fact that the participant being evaluated was also evaluating his/her own performance against the action plan he/she developed.

- The India case presents several useful ideas. First, the monitoring process relied on open dialogue between project personnel and participants. This approach was designed to maximize learning about techniques and practices within and across projects in the program. By requiring frequent visits of 'experts' to the field to guide, interpret, and monitor, there was also open information sharing within the system and a layered effect to the monitoring and evaluation process. For example, information gathered in the field was shared with regional project personnel and then eventually transmitted to the national and international levels. At each stage the information was analyzed and discussed so that an interactive process was used to effectively monitor and evaluate the program. Monitoring was a

regular process at the local level, and evaluation involving the national and international levels was an annual process.

- The Senegal impact evaluation case is interesting because it used a data set collected for other purposes, thus reducing the cost significantly in this 'data heavy' evaluation approach.

- The Haiti case presents a unique data collection technique, participant observation. The management consultant assigned to the project keeps a journal of "process notes" which help to convey an understanding of the dynamics of the change process, as well as to record the progress of project activities.

- The PVO microenterprise case is interesting as an example of a post hoc evaluation technique which uses data from completed project evaluations. Another important characteristic of the case is that it considers social factors as part of an economic cost-benefit analysis.

SUMMARY OF COMMON STRENGTHS

In reviewing the seven monitoring and evaluation cases, certain themes emerge from the record of their accomplishments. The examples given below are designed to highlight some of these.

- The evaluation and monitoring techniques presented here relied on both qualitative and quantitative data. Even the economic benefit-cost analysis case used qualitative data to describe the nature of the economic system in which the microenterprise operated, in order to put values on certain factors used in the analysis.

- Evaluation and monitoring was treated as an evolving process in most of these projects. In the Portugal case, for example, the monitoring and evaluation systems were developed in workshops and were revised at least annually.

- Developing skills of host country project personnel in the monitoring and/or evaluation process was a priority. In the Senegal project for example, host country personnel were trained in all aspects of the impact evaluation process so that the capacity to continue this process would be developed within the host government.

- Involvement of various project actors in the monitoring and evaluation process seemed to be positively associated with system flexibility. Where the various actors were most involved in developing the system, such as in the India case, the system seemed to be most responsive to specific monitoring and evaluation needs.

- Involvement and "buy-in" of all major actors in developing the monitoring and/or evaluation system seemed to be positively associated with greater acceptance and success of the system. The India case again presents a good example. Participation by all actors was continuous and substantive, and this seemed to be a factor linked to the high acceptance of the system.

CONCLUSION

Each case study included in this volume tells a very different story of how the general principles of monitoring and evaluation were applied to a specific situation and context. The intention was to draw upon these field experiences to provide the basis for understanding a number of different models and approaches to monitoring and evaluation. While reading this group of case studies, the development project officer will want to keep in mind the projects he or she currently manages or influences.

The success of this handbook will depend on whether these cases succeed in providing some initial guidance to project officers on ways they can further develop their current approaches to monitoring and evaluating projects.

INNOVATIVE MONITORING AND EVALUATION TECHNIQUES AND METHODS: A CASE STUDY OF PORTUGAL'S AGRICULTURAL PRODUCTION PROGRAM

Governments rely on a range of policy and programmatic responses to develop their agricultural and rural sectors. Historically, most governments, with the support of international assistance agencies, have emphasized the transfer of new or improved agriculture production knowledge and technologies. Much less priority has been given to the creation and application of innovative managerial technologies, by which we mean the knowledge and methods necessary to mobilize, direct and coordinate--in short, to guide--agricultural development efforts.

In recent years, as managerial technologies have come to be viewed as an integral component of successful development programs and projects, governments and donor agencies are giving increased priority to experimenting with innovative management techniques and methods. The case study presented here reviews one such innovative management approach within the context of an agricultural production program in Portugal. The particular focus of this study is on the monitoring and evaluation subcomponent of the program. Specifically, the study will concentrate on explaining and assessing the overall value of several innovative features of the Portugal program's monitoring and evaluation approach. The monitoring and evaluation approach is viewed here as an integral part of a more comprehensive effort aimed at improving the overall management of this program.

This case study is organized in several sections. First, an overview of the program's setting and background is given. Then, the monitoring and evaluation approach is explained within the context of the program's overall management system. Based on this presentation, an assessment will be made of the impact of the innovative monitoring and evaluation techniques and methods on the implementation of this agriculture production program. The study will close with a summary of lessons and implications emerging from the application of this monitoring and evaluation approach.

I. PROGRAM OVERVIEW

In 1980 the Government of Portugal (GOP) and the U.S. Agency for International Development (AID) agreed to cooperate on a major agricultural development program with the overall goal of reducing Portugal's dependence on food and feed imports, thus improving the nation's overall balance of payments position and making way for eventual entry into the European Common

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This case study was written by Dr. Marcus Ingle (International Development Management Center, University of Maryland)

Market. The GOP refers to this effort as the Program for Limestone, Fertilizer, and Forages (PROCALFER). AID is providing $10 million in grant assistance and up to $65 million of PL 480 assistance to PROCALFER. The Portuguese contribution is estimated at $4 million over the initial five-year program implementation period.

In 1980 the Ministry of Agriculture and Fisheries (MAP) set out the objectives for the PROCALFER program as follows: to improve the overall production of crops and forages in Portugal through a multi-faceted approach to soil correction and fertilization combined with the strengthening of the national research and extension systems. The AID project purpose is to "strengthen and support Ministry of Agriculture and Fisheries institutions responsible for meeting objectives of the Ministry's Agricultural Production Program."

The PROCALFER program, including the AID project, represents a rich context within which to examine an innovative monitoring and evaluation approach. First, the program is a multi-year, multi-organization effort that touches on almost every segment of agricultural production activity in rural Portugal. The program thus exists within the context of traditional public sector monitoring and evaluation practices within Portugal, and within AID. Thus one finds in this case an opportunity to examine an innovative approach within the context of more conventional approaches to monitoring and evaluation.

Second, PROCALFER encompasses three key sets of actors frequently associated with development program monitoring and evaluation concerns: Portuguese public and private sector units and staff; USAID donor assistance agency officials; and a technical assistance contractor (in this case the U.S. Department of Agriculture--OICD/USDA under a PASA agreement with AID) with responsibility for assisting with the implementation of the program through the provision of a series of short- and long-term technical assistance and training activities.

A third strength of PROCALFER for our purposes is that the management component of the program has been viewed as an experimental action-research effort since early 1981. As a result, considerable data has been systematically gathered and maintained on the monitoring and evaluation approach used in the program. Enough resources have been applied to design and implement an innovative approach, and enough time has now elapsed to gain a proper historical perspective on this innovative approach.

II. ROLE OF MONITORING AND EVALUATION IN THE PROCALFER PROGRAM

The initial design of the PROCALFER program did not specify the role of monitoring and evaluation in the program's implementation and redesign. Mention was made that monitoring and evaluation should be done, and a small amount of donor assistance funds were set aside for that purpose, but few details were provided. Accordingly, distinctions between monitoring and evaluation, and particulars about a "preferred approach and timing" were not specified in the initial GOP or AID documents.

The precise role of monitoring and evaluation in the program, therefore, only began to be articulated during the implementation start-up phase of the program in the spring of 1981. In May of that year, the PROCALFER Coordinating Group of the Ministry of Agriculture and Fisheries, in cooperation with AID, sponsored a one-week implementation management workshop in Lisbon for representatives of PROCALFER, AID, and OICD/USDA. This workshop was conducted by Marcus Ingle of USDA's Development Program Management Center and two Portuguese management trainers. At the workshop an integrated program management approach, since referred to as the Program Implementation Management System (PIMS), was introduced (See figure 1). PIMS is an open systems approach which stresses the importance of generic management functions, analytical tools and techniques, and team modes of action in fostering the successful implementation of development efforts. The PIMS approach involves monitoring and evaluation as a necessary program and management function.

Initially developed for U.S. public sector applications, variants of the PIMS approach have been adapted and used in various international public and private sector agencies since the early 1970's. An underlying premise of the PIMS approach is that the likelihood of successful program implementation increases where five generic management functions are performed by the key actors in a development effort. The five generic management functions are:

- development objectives and strategies are clearly stated and agreed upon;
- realistic program workplans and budgets are developed and accepted;
- individual and team roles and responsibilities are clearly stated and negotiated;
- appropriate incentive and sanction systems are operational to control the execution of program tasks; and
- monitoring and evaluation systems allow for continuous modifications and periodic redesigns based on systematic feedback and learning about progress to date and changes in the program environment.

To ensure satisfactory performance of these five basic management functions, management tools and work processes are selectively introduced, adapted and used. These tools include, but are not limited to, objective trees, logical frameworks, team-building sessions, responsibility charts, monitoring mechanisms, and evaluation designs. The basic concepts of PIMS are quite straightforward and simple to apply. A chief source of the approach's appeal is that the conceptual framework underlying the approach is usually kept in the background. Program personnel are asked to collaboratively identify opportunities for successfully accomplishing program goals, and are introduced to concepts and tools only as work tasks emerge which require

FIGURE 1: LIST OF INTEGRATED PRINCIPLES, CONCEPTS, AND TECHNIQUES IN THE P.M.S. MANAGEMENT TECHNOLOGY

Generic Principles	Everything is uncertain; For every cause there are multiple effects and vice versa; Organized forms tend to displace disorganized forms; There are limits to the extent that single entities can become more organized or more complex; therefore, organization of organized forms is the process of evolution; Everything is part of a system--all systems are part of or subsume other systems; and Direction and feedback are essential ingredients for evolutionary success.	
Generic Manangement Functions	Clear and agreed-upon objectives; Consensus on roles and responsibilities; Realistic scheduling and budgeting; Appropriate incentive and sanction systems; and Cost-effective means for monitoring and reporting.	
Key Techniques (partial list)	Objective Trees Logical Framework Forming the Project Team Management Feasibility Basic Scheduling Techniques Performance Networking Resource Estimates and Projections Assigning Responsibilities and Tasks	The Management Contract Monitoring and Reporting Management by Objectives (MBO) Evaluation and Practical Uses of Scientific Method Congruence Diagrams Objective Verification, Data Collection and Measurement Benefit Continuation Methods

their application. In the process, program personnel learn how to apply concepts and tools in an "action-training" or "learning-by-doing" mode.

In the PROCALFER case, the PIMS was elaborated and adapted through a series of action-training consultancies and workshops during 1981 and early 1982. The design effort usually involved one or two USDA consultants and three to five Portuguese agricultural technicians and consultants designated by the subdivisions of the Ministry of Agriculture and Fisheries responsible for PROCALFER. In early 1982, the PIMS effort was formalized in a two-year effort aimed at assuring that all key PROCALFER actors would be trained in and using appropriate management tools and processes--including monitoring and evaluation--by the end of 1983.

Within the PIMS context, the particular approach to monitoring and evaluation emerged in early 1981. It was further elaborated and developed from the middle of that year until the summer of 1984. The PIMS approach to monitoring and evaluation differed markedly from the traditional, bureaucratic approach typical of the Portuguese system.

From the outset, a distinction was made between the two concepts of monitoring and evaluation. Monitoring was defined as the systematic watching of the internal and external elements of a program to determine the manner and extent to which implementation is occurring. Evaluation, on the other hand, was seen as being more concerned with whether intended program objectives were being accomplished, whether observable results could be attributed to the program intervention, and whether the underlying rationale of the program remained valid.

Monitoring, as used in the PIMS context, addressed two key questions: (1) whether program elements were implemented in accordance with design specifications, and (2) whether the program was involving the appropriate target populations. The first question addressed the issue of compliance or accountability -- providing sponsors with evidence of conformity to program specifications and fiscal requirements. This kind of monitoring was primarily concerned with the timely procurement of goods and services, the arrival and initial use of physical and human resources, the adherance to implementation procedures, the quality of implementation agents, and the achievement of implementation milestones. The second monitoring issue, whether target populations and organizations were involved in and covered by the program (a 'coverage' issue) was particularly important where target populations or organizations had been defined as being important to the implementation process, as was the case in the PROCALFER program. The focus of PROCALFER was on smallholders in the northern regions of Portugal and a series of intermediary public and private sector entities.

In PROCALFER, monitoring was set up to involve tracking of actual program progress, along with the status of critical external conditions, against planned progress and expected external conditions. Therefore, monitoring was viewed as a fairly continuous function which encompassed the specification of program activities and objectives, the gathering and analysis of internal and external program data, and the use of information

for managerial decision making throughout the program implementation process.

Evaluation in PROCALFER was viewed as a management activity aimed at determining the effects of program actions and providing useful information on how these effects had occurred in order to better predict and control the future. The scope of the evaluations was viewed as considerably broader than that of monitoring.

III. SELECTION OF EVALUATION/MONITORING METHOD

The approach taken to monitoring and evaluation was selected based on a series of operational considerations. First, the lack of staff experience in evaluation and monitoring combined with a number of agencies spread over a broad geographic area indicated that a Portugese standardized, yet simple, approach was needed. Second, AID's involvement required that an approach acceptable to them be used. Thus, the program's substantial budget for training allowed for the development of monitoring and evaluation competencies within the context of an overall management improvement effort and allowed for a more complex system to be developed and used over the life of the program. Finally, since PIMS was the first major management improvement effort of its type in the Portuguese Ministry of Agriculture and Fisheries, there was considerable Portugese support for managerial experimentation. Thus, a more innovative approach was possible than otherwise might have been the case.

IV. MAJOR CHARACTERISTICS OF THE DESIGN

Monitoring and evaluation were considered important by the team of consultants fielded by OICD/USDA. Within the Portuguese Coordinating Group, one member was interested in evaluation from the outset and was assigned by the Planning Department to be the officer responsible for monitoring and evaluation. He desired to employ a traditional quantitative approach to measuring production increases in each region. The OICD consultants attempted to demonstrate to the evaluation officer how their monitoring and evaluation approach would also allow for the collection of quantitative production data along with the monitoring of progress on work plans. However, agreement was not reached on this issue. The conflict between the OICD consultants and the Portuguese evaluation officer regarding the approach to be taken for monitoring and evaluation was never fully resolved.

USAID/Portugal backed the approach suggested by OICD. They saw this kind of monitoring as serving their need for periodic progress reports. At first they used informal channels, such as meetings and discussions with the consultants, to monitor the progress of the project. Later, the Coordinating Group assisted by the PIMS monitoring system sent AID more formal reports. There were also two formal evaluations, one at the end of the second year (1982) and one at the end of the fourth year (1984) of the project.

The monitoring system was based on the planned progress of the program in each region and central organization. Therefore, the first step was to develop a plan and schedule against which to monitor. This required workshops to design the entire system and to design targets for each year. Each region carried out workshops to set annual targets. For example, each region agreed to operate a negotiated number of limestone demonstration plots for the year. Monitoring on how well this had been done was carried out by the Coordinating Group, its Chairman deciding that trimester monitoring sessions should be held to review progress. The results from one year were used as planning targets for the next year. The first meeting was held in Lisbon in early 1982 using targets established in 1981.

On the evaluation front, each evaluation had its specific issues to be addressed by the three major actors. For example, AID was interested in whether the poor regions were receiving most of the resources per their initial intent. The Northern Coordinating Group was concerned about conditions in the external environment which were influencing the program's accomplishments. OICD was concerned about the overall effectiveness of its technical assistance and training.

The monitoring and evaluation system that finally evolved was arrived at through an adaptive process. The initial conceptualization was based on previous work done in Haiti. From this basis, a simple system was developed and accepted at a large workshop held in 1982. Subsequently, the system evolved through a process of refinement and adaptation with each key actor involved in the program and with considerable on-the-job training.

Several principles were at work during the evolution of the system. First, the system which is actually implemented will be different, and most likely less comprehensive, than the system that is designed. Second, it is most effective to start with one segment of the system and move through the system in subsequent time periods. In both the monitoring and evaluation areas, the principle of "structured-flexibility" is relied on. In other words, the overall project design sets the boundaries for the monitoring and evaluation plans, but adaptations are allowed to fit the changing conditions of the project context and to reflect what is learned as the project progresses and changes.

The innovative elements of the application of the monitoring and evaluation approach to PROCALFER included the following:

- Key actor involvement on a continuous basis from the outset. This included attempting to gain a consensus on the meaning and functions of both monitoring and evaluation in the PROCALFER context. To do this, presentations were given to the Coordinating Group in 1981 and to a team of visiting PROCALFER dignitaries in the U.S. early in 1982. Additional training sessions were held in Portugal and the U.S.during 1982, 1983, and 1984.

- Development of a monitoring and evaluation perspective beginning from the needs of PROCALFER program actors rather than the needs of AID or OICD/USDA. The central notion was to use PROCALFER-

generated information to meet the reporting requirements of the other main actors.

- Management specialists within the Central Coordinating Group and in the regions were trained to assist with monitoring and evaluation at their respective levels. Thus it was possible to develop a standardized and gradually more sophisticated approach which would be followed throughout the program.

- The consultants played a third-party role throughout in the form of facilitators and developers rather than managers of the program. In this way they attempted to remain an objective source of advice to all parties involved over time.

Figure 2 below shows how the PIMS, or Project Implementation Management System, differs from a traditional approach to monitoring and evaluation.

FIGURE 2: COMPARISON OF THE "TRADITIONAL" AND "PIMS" APPROACHES TO MONITORING AND EVALUATION

TRADITIONAL APPROACH	PIMS APPROACH
* Learn what should work from an ideal model of problem-solving	* Model adapted by building on what works at home and elsewhere
* A CURATIVE focus reacting to problems as they arise	* CURATIVE deepening to a PREVENTIVE focus avoiding unnecessary problems by having a holistic and integrated approach
* Focus on discrete problems	* Discrete problems generalizing solutions for use by the whole
* Oriented towards individuals	* Individuals broadening to include team or small-group orientation
* Management lecture courses concentrating on skill/capacity development in training institutions	* Lecture courses adding action-training, learning-by-doing, concentrating on immediate problem-solving in workshops
* Rely permanently on external consultants	* External consultants used only as necessary to build local capacity with phased skill-building
* Paper System	* Paper shifting towards a microcomputer system for better data collection and analysis
* Focus on implementation phase	* Implementation focus on continuous feedback/replanning process throughout design and implementation

V. DATA REQUIREMENTS

Data requirements were substantial due to the complexity of the program, its many elements, various regional locations, and multiple actors. The data were organized as indicators of the objectives listed in the project's logical framework. Key indicators were selected in each area based on the annual plans generated with the assistance of PIMS management specialists and decisions made by operational personnel. For each indicator, the regions had to set their own numerical targets. Initially, targets were established in a regional PROCALFER workshop. Thereafter, targets were revised during the annual monitoring session facilitated by the Management Specialist.

Two types of indicators were identified. There were a number of management indicators having to do with the establishment of program policies, structure and procedures and other management activities. In this way, program officials could monitor basic management aspects of the overall effort. In addition, there were the typical indicators that dealt with the achievement of specific agricultural outputs. For example, several measured progress in the amount of limestone and fertilizer (and the number of their respective storage facilities) produced and used. Indicators for the rural extension services included numbers: of new and upgraded extensionists, of extension demonstration plots, of extension visits to farms, and of farmer visits to demonstration plots.

Baseline data that was available was not considered very important as it was basically unreliable in most technical areas. However, the monitoring sessions and first formative evaluation were used as opportunities to gather higher quality baseline data for future evaluation use.

VI. DATA COLLECTION

For the monitoring system, data was collected by each of the Central and Regional units involved. The management specialists assisted in devising the forms for data collection and reporting, but collection was done at the local level. The Management Specialists provided action-training sessions for regional staff in data collection procedures, and assured that the forms were understood. For evaluation, the team of evaluators collected the data themselves. Much of the evaluation data came from the PROCALFER monitoring system, as similar indicators (from the PROCALFER logical framework) were integral to both processes. The evaluators collected their information from PROCALFER monitoring reports, oral presentations by program staff and site visits to several Central and Regional offices.

VII. DATA ANALYSIS

In monitoring, the analytical technique used was a "congruence diagram" in which planned versus actual data tables were presented. Some statistical reporting was done in several program areas where quantitative data were available, such as limestone distribution and credit. For these statistical

reports simple microcomputer Visicalc templates were created and used. But for the most part, microcomputers were used for planning and budgeting and not for monitoring against plans.

VII. REPORTING

For monitoring, monthly reports were sent from the field to headquarters. Based on these, the Coordinating Group submitted a monthly program report to the Minister of Agriculture and Fisheries with copies going to AID. Tri-annual monitoring and replanning sessions were also held with the Coordinating Group. From these meetings, the Chairman of the Coordinating Group prepared a memo to Ministry of Agriculture and Fisheries officials presenting a comparative analysis of progress in different program areas. Each of the two evaluations that took place had its own final report, submitted to both the Portugese and AID entities.

VIII. ASSESSMENT OF THE MONITORING AND EVALUATION APPROACH

In general, the Portuguese and AID were very positive about the monitoring and evaluation system. The system that evolved allowed the Coordinating Group to have up-to-date information, although this information was not always accurate and reliable. One reason for this was the fact that the regional offices did not want to share any negative or potentially damaging information, because they were concerned that their funds would be reduced. There was also the fear that indication of poor performance would bring reprisals rather than support and efforts toward improvement.

The fear of the negative consequences of not meeting project objectives produced incentives not to report any negative aspects of the program. Problems were caused in the evaluation system since norms of using information for improvement were not institutionalized. One of these problems was that certain questions were avoided because it would make the program officials look bad in terms of future funding prospects.

Costs for this component of PIMS were not very substantial. The major costs involved were those to produce forms, meeting reports and the actual evaluations.

IX. LESSONS LEARNED AND IMPLICATIONS FOR MONITORING AND EVALUATION

- Favorable economies of scale are involved where monitoring and evaluation is an integral part of a broader program management system. In such a system, design and implementation become complementary and lead to substantial cost savings in staff development and system operations.

- The innovative monitoring and evaluation approach discussed here is feasible up to some level in a traditional bureaucratic setting, but has some specific attributes that have to be closely

monitored and dealt with in order to be effective. Improvements in internal performance are easiest to achieve but require continuity of effort and acceptance by all actors in the system. Sustained improvements require institutional change in the broader program setting.

- Incentives must be built in for accurate reporting of what was and was not accomplished. Specifically, higher level officials need to take a tough, but fair, stance in response to poor program performance by various program units. If higher level officials are viewed as unfair, program units will likely not report poor results accurately.

- Team approaches involving host institutions, donors and consultants are effective and are important for designing and carrying out monitoring and evaluation processes.

- Microcomputers offer high potential for use in monitoring and evaluation. Better management software packages or management templates are needed before the microcomputer can be of additional assistance.

- Donors, host countries, and contractors need to agree on common sets of data and common analysis/reporting methods to save time in collection and processing. There is a tendency for the operation of a management information system to take greater and greater amounts of time, with little increased benefit to the program.

- Given that programs are highly complex and constantly changing, flexibility in monitoring and evaluation, such as was the case in Portugal, is needed. Thus, the "structured-flexibility" approach appears to be a good one and needs to be continued and tested in other contexts to examine its applicability for more widespread use.

MONITORING THE PROCESSES OF IMPROVING FINANCIAL MANAGEMENT: A CASE STUDY OF THE SAHEL REGIONAL FINANCIAL MANAGEMENT PROJECT

I. INTRODUCTION AND BACKGROUND

Financial management shortcomings in the AID Sahel program reached the public agenda in 1981, following negative reports by the AID Inspector General (IG) and the Africa Bureau. The U.S. Agency for International Development (AID) initiated a major financial management improvement effort in response to serious problems of financial accountability, particularly for local currency funds used in AID-financed projects.

To ensure accountability for U.S. funds in the Sahel Program, legislation was passed amending the International Security and Development Cooperation Act of 1981 in Section 308 (B): subsection 121(d) that required "certification" for systems of accounts in organizations managing U.S.-provided funds. Certification refers to the capability to maintain minimal financial management standards including documentation of receipts and expenditures, documentation for accounting transactions, timely and accurate reporting, reconciliations, internal controls and an audit trail. A basic accounting system was developed in the pre-project activities to demonstrate the functions of a minimally-acceptable system. This was used in action-training consultations and workshops with AID and host country officials to examine and adapt existing project financial systems so that certification could be achieved and maintained.

The AID initiative for financial management improvement focused on the financial management capabilities of host country institutions that house AID projects. Under the direction of the Development Program Management Center (DPMC) of the U.S. Department of Agriculture, an action-oriented approach to management improvement was developed. Participatory, collaborative needs assessments and workshops involving both AID and host country officials were conducted to ensure that standards for basic accountability for improved financial management were communicated and maintained.

During eighteen months of field training and consultation, financial management improvement teams of USDA/DPMC worked with AID and host country officials to improve financial accountability on AID-funded projects. Based upon this approach and experience, the Sahel Regional Financial Management

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Project (SRFMP) was designed and initiated by AID in late 1982, again under the leadership of USDA/DPMC. The SRFMP (1982-85) has been implemented by USDA (OICD/DPMC) in cooperation with the Virginia Polytechnic Institute and State University (VPI). SRFMP is being implemented through June 1986, and AID is presently designing Phase Two to continue financial management improvement for another five years.

Numerous actors were involved in the SRFMP. The U.S. groups involved include AID/W; USDA; VPI; SRFMP/headquarters; SRFMP/country teams (6); and USAID missions, including Directors, Controllers, and Project and Program Officers. Host country officials included Program Executives, Project Directors, Project Accountants and Central Ministry Officials. A central project unit was established in Washington, D.C., to manage the project and to provide guidance to the country team programs which were agreed upon by USAID and the sponsoring host country organizations. The project thus operated in a complex organizational environment and had to interface at multiple levels within the host country while balancing AID and USAID (AID country missions) interests and meeting the requirements of implementing agencies, USDA and VPI.

The complexity of the $6 million SRFMP was compounded by its regional responsibility covering eight West African countries: The Gambia, Niger, Mali, Burkina Faso (formerly Upper Volta), Chad, Senegal, Mauritania and Cape Verde. All are Francophone, except the Gambia (English) and Cape Verde (Portuguese). Each had distinctly different sets of financial management practices and problems.

The goal of the project was to increase the ability of Sahelian governments to manage donor-assisted development programs, thereby increasing benefits to Sahelian citizens. It can be characterized as a "project for projects." Its purpose was:

> to improve the financial management of Sahelian development institutions that directly handle funds provided by AID (sustained at or above 121(d) requirements) and encourage the institutionalization of improved management practices.

Resident financial management teams (FMTs) consisting of an expatriate technical assistant and a local expert were located in each of six countries (Mauritania and Cape Verde received only short-term technical assistance). These teams were responsible for implementing the project. During planning sessions for project implementation, four operational objectives were identified to represent the project purpose and outputs:

- improve accountability on projects,
- institutionalize improved accounting and financial management practices,
- establish on-going financial management training programs, and
- enhance the role of accountants as professionals.

These operational objectives became the core for the design of a management information system.

II. ROLE OF EVALUATION/MONITORING IN THE PROJECT: SRFMP's MANAGEMENT INFORMATION SYSTEM

To achieve the purpose of sustained financial management improvement, much information had to be collected, processed and shared between all relevant organizations and officials. An effective Management Information System (MIS) was seen as a core mechanism for project management to ensure appropriate guidance, autonomy, and communication about the project between the many organizations, levels, and persons involved. The MIS was developed from the beginning of the project with the understanding that it would be a critical factor for project success.

The purpose of the MIS was to facilitate information flows and feedback mechanisms for effective decision making, implementation and management. It was designed to meet the internal project needs for management, project monitoring and formative evaluation of impacts on project and program financial management improvements. Its design was highly influenced by the fact that country teams were the core of project activities.

The country teams and the action-training approach were the center of the project. Therefore, SRFMP information gathering and assessments centered on the activities of the teams and their impacts. Information was also collected from other organizations in the host country and AID which were influenced by SRFMP activities. The MIS focused at the project level to assess impacts on project accountability, at the country and regional levels to assess the accomplishment of broader objectives, and at the SRFMP team level for internal management purposes.

The resident teams and the short-term consultants were relatively autonomous in operations from the SRFMP headquarters (SRFMP/W). They worked with host country project staff (project managers, accountants and other management personnel) and Ministry personnel to solve practical problems of project implementation--designing and establishing accounting systems as needed and training project staff in financial management techniques and practices. Each FMT operated in a third-party role to initiate and facilitate coordination and communication between USAID and the host country. In this role, FMT's sought to bring both sides to a common understanding of project goals, purposes and outputs. They helped to initiate systems and practices that would enhance the financial management capabilities of responsible organizations and officials. The role of each team was to coordinate, influence and manage learning among all actors for improved financial management performance and long range competence.

The MIS was designed to guide SRFMP management and personnel at all levels by focusing project activities on key SRFMP goals. Using the MIS at various project levels, project personnel were able to use the MIS to periodically examine and refine their planning in response to implementation and environmental realities. The MIS was also designed to identify strengths

and weaknesses of varying approaches used in the field and as a basis for reviews and revisions in the allocation and use of project resources.

The premise of the MIS was that monitoring and evaluation are ongoing processes shared by project personnel at all levels. The MIS provided a basis for:

- guiding a process which yielded an overall image of project success developed through interaction of the parties relevant to SRFMP goals;

- guiding a process which assured the development and integration of action plans likely to lead to project success;

- guiding a process through which project participants developed approaches and sets of procedures which enable managers at all levels to gather, report and use information to prepare and modify action plans, refine specific objectives and revise the mix of activities; and

- guiding a process of systematically gathering and consolidating records documenting the potential for extension, expansion and replication of the project.

The MIS also functioned as the mechanism to collect the necessary information to evaluate the SRFMP staff performance. The FMTs are the field arms of the SRFMP. Each FMT must be evaluated, primarily by determining the degree to which they meet AID and SRFMP directives (explicit or implicit) under the conditions faced in their Sahel country. As the primary instrument of the SRFMP, each FMT is measured strictly by how well it satisfies SRFMP's goals, purposes and outputs. FMT contact with SRFMP/W was sparse, infrequent and largely contained in policy documents, memos, and word-of-mouth instructions from managers and consultants: therefore, FMT's had to understand and be committed to their ultimate responsibility for achieving the project outputs in their country.

III. SELECTION OF THE EVALUATION/MONITORING METHOD

The stated purpose of the project emphasized institutional development of Sahelian organizations for enhanced financial management. The initial impetus for the project came from the need to satisfy U.S. Congressional concerns regarding the accountability of AID-supplied project funds. The purpose of the project therefore had two equally important objectives which had to be balanced. First, there was the concern for "accountability." This was a U.S.-based, project-focused, short-term concern. Second, there was a concern for "institutionalization," an objective which emphasized long-term, Sahelian program concerns. The tension created by attempting to simultaneously achieve the two objectives of accountability and institutionalization became a major issue for project management and implementation.

The major management challenges of the project were:

- to achieve both of the objectives of accountability (certification) and institutional-development (capacity-building among Sahelians), and

- to be responsive to the variety of situations and differences between countries and even between projects within a single country, while maintaining a common purpose and approach.

In addition to being able to deal with these project challenges, the SRFMP MIS had to satisfy the following criteria:

- be as simple as possible while providing needed information;

- provide a record capable of showing progress over time;

- permit comparisons between projects and countries which differ in purposes, funding level, and time of initiation;

- provide a means of providing useful feedback to project managers, ministries, and a broad spectrum of organizations involved in analogous projects;

- provide a means of differentiating between weak and strong project systems; and

- provide a body of information upon which to base decisions about project or program improvement.

Expected benefits of the MIS system users included:

- monitoring of activities and expenditures that would facilitate management and administration;

- systematic documenting of experience and progress, to help ensure that ongoing activities moved steadily toward established goals;

- summarizing information for policy makers and consolidating communication between SRFMP partners to support SRFMP objectives;

- identifying successful activities, so they could be continued; and

- identifying less than successful activities, the specific symptoms of or reasons for their lack of success, so they could be modified, replaced or terminated.

To accomplish the purposes of this kind of MIS, SRFMP leadership used recruitment, assessment and pre-field preparation to develop commonly shared images of project success, with roles and responsibilities for reaching success clearly defined and differentiated. Then key activity areas were identified and the key elements of a management system developed. Reporting

mechanisms were put in place to assist in the strengthening of operational plans which supported contributions to overall project success. The MIS was to be a tool for guiding the above processes and for tracking outputs, outcomes and the processes to reach them.

An important assumption of the SRFMP MIS was that it is as important to monitor processes as products. Products and processes were considered to be intimately related; the quality of results are often directly determined by the way in which results are achieved. One set of outputs of SRFMP centered upon building financial systems that meet the certification requirements of donors. Specifically, these outputs included improved accounting and reporting systems, improved financial management practices and an increased number of committed and qualified Sahelian financial management professionals. The processes important for achieving these outputs included host country and AID agreement on overall goals and strategies, on the purpose and design of the financial systems and practices, on their commitment toward shared resources and plans, and on a means to review progress and planning.

Another important assumption was that the MIS had to respond to the dynamic and ambitious nature of the project. Over time, the focus would have to shift from start-up to extension and replication, from certification to institutionalization, from projects to programs and organizations, and from donor needs to host country needs.

IV. MAJOR CHARACTERISTICS OF THE DESIGN

In the long run, the objective of the SRFMP MIS was to facilitate establishing financial management processes in Sahelian projects and institutions. By generating all the necessary information while the SRFMP was in existence, the MIS could be used to ensure that the groundwork existed for sustained long-run processes. The MIS was designed to monitor the evolution of those financial management processes, indicating the achievement of SRFMP goals and objectives. It was designed to be an exemplary process for future financial management improvement projects.

The specific activities to be monitored were determined by their relationship to immediate and long-term goals. These goals included:

- to strengthen the financial management capability of specific development projects;
- to enlarge the capacity of the projects to use timely financial reporting in planning and management decisions;
- to enlarge the use of financial management in host country program decisions;
- to develop the capacity to sustain the improved performance in these areas, in the absence of FMTs; and

- to develop strategies to replicate a sustained, effective financial management capability and information use in other projects and countries.

Specifically, the SRFMP MIS was designed to do the following:

- Measure the activities that would satisfy the 121(d) requirements of AID of assuring financial accountability on USAID-financed projects.

- Measure the institutionalization of improved financial management capabilities.

- Provide feedback to FMTs for upgrading performance in the area of financial management.

- Provide management feedback to SRFMP, VPI and USDA/DPMC in order to assist these organizations in supporting activities.

- Provide an assessment of the "environmental" factors influencing SRFMP implementation.

- Provide a data base to evaluate FMT activities and to assess the underlying assumptions of the project's approach.

Initial management information focused on logistics of the project. Over time, SRFMP teams proceeded from project start-up to full engagement with host country development projects and to addressing longer range goals. SRFMP staff shifted their work focus, priorities and time allocation. The focus of the MIS and the data collection was intended to shift accordingly. As the project proceeded, MIS emphasis shifted, along with dominant project management concerns, from the different stages of implementation to improving project financial management capability. This ensured conditions for independent maintenance of successful financial management in host country development projects and for developing approaches conducive to replication.

To assist managers in measuring progress, the MIS was intended to provide information regarding the relative progress on designated activities. A limited set of indicators was designed to describe the success of significant clusters of activities. The differing needs of the users were to guide the selection of indicators and the form of their presentation. Accessibility of the data and simplicity of use of the entire system, from data assembly to distribution and review, are major considerations as well.

The structure of indicators differed in response to the nature of the data that was to be captured. In some cases, simple numerical or yes/no measures were used. Examples include the number of trainees who participated in a specific type of workshop, or the timely meeting of reporting requirements. For more complex issues, such as enhancing the role of accountants and institutionalizing improved financial management in an organization, scalar indicators were designed to mark a range of performance, e.g. from very weak

(1) to very strong (5). Operational, observable indicators were identified for each point of the scale. These scales proved particularly difficult to operationalize and have gone through several iterations, none of which has led to consolidated, comparative information for project management and evaluation.

V. MIS DATA COLLECTION, ANALYSIS AND REPORTING

The MIS documentation can be classified into three groups: (1) internal management reports; (2) progress reports; and (3) activity evaluation reports. For all reports and flows of information, formats and schedules were tentatively specified at the beginning of the field programs. The MIS was intended to produce periodic, timely reports which could be processed on automated systems. In practice, the Project Director and Principal Investigator were unable to develop or use the field reports for systematic horizontal or linear comparisons within a country or between countries.

Internal Management Reports were based on the country action plans. Country action plans were prepared by each country team in consultation with USAID and the sponsoring host country organization. These plans were prepared and revised biannually and were approved in country before being submitted to SRFMP headquarters for consolidation and approval by USDA and AID. The country action plans provided the opportunity for all key actors to come to agreement about the focus, priorities and mixes of activities for SRFMP teams.

Other internal management reports included requests for budgets and technical assistance, monthly project reports, quarterly analytic project reports and financial reports on a monthly and quarterly basis. These were used more or less systematically, but SRFMP/W never developed a consolidated reporting system or reports which integrated country information or which were used for control or rolling planning.

Progress and Summary Reports were used to (1) assess progress toward achieving accountability for project systems, and (2) assess the institutionalization of improved financial management practices and training. For project reporting, a detailed checklist was developed, and then modified by country teams, for carrying out project site visits. The format was created to record observations over time so that changes in each project could be recorded. The institutionalization assessment was to be documented against ten to twelve priority indicators using a five-point qualitative/quantitative scale along a progress continuum. Each country team eventually developed their own project assessment methods. These were not compared between countries, nor was any central record of performance maintained. In-country needs were met relatively well, but the regional framework was neglected.

Finally, Activity and Personnel Evaluation Reports included (1) workshop or training evaluations, (2) evaluations of short-term consultants, (3) SRFMP team evaluations of SRFMP (including self-evaluations and of headquarters) and (4) assessment of SRFMP by host country, USAID and AID officials. This

last assessment is particularly important because it gives feedback to SRFMP about special problems and/or successes that need action or attention. These all function as mechanisms for communicating a sense of the project and its direction among all relevant countries. These were also maintained, though with varying rigor, by country teams; but not on a regional basis.

The MIS was intended to provide guidance for managers and decision makers at all levels. It was to relate progress toward major project goals to activities and indicators appropriate to each particular project phase. Based on MIS monitoring data, analysis and feedback, SRFMP Country Teams and SRFMP/W were to identify strengths and weaknesses in their efforts, and respond accordingly. Data generated did help guide the effectiveness of the teams' developmental activities, as well as their functioning (soundness of planning, use of resources, etc.). MIS data helped most teams focus on their effectiveness. Several SRFMP teams used the MIS to model the use of monitoring data for management. But in most cases, only minimal data was maintained on host country development projects. Financial management information on project planning and decision making was given much lower priority than accountability for certification.

Overall, the intended function of the MIS was to assure that data would be generated and analyzed in such a way that managers could identify remedial actions required, and carry out any necessary replanning. The basic elements of the MIS were used by field teams in different ways. For example, based on MIS data, field teams often made decisions to monitor the activity more closely but take no immediate action, or decisions to discuss projects with those involved to attempt to diagnose the source of difficulties, or decisions to call an urgent meeting to discuss modifying, replacing or cancelling activities before more damage is done. But field use of the MIS beyond data on project accountability was minimal. Regional use was nearly non-existent.

In general, the use of the MIS for management purposes was disappointing and confusing. SRFMP/headquarters tried to use the internal management information for administration and logistics; but due to the lack of agreement and consistent application of tools, the progress indicators and evaluation never got organized. The mid-term evaluation concluded that the MIS was primarily an administrative reporting device for the purposes of SRFMP/W. Limited feedback was given to country teams; the reporting burden was excessive; and reporting standards were inconsistent. Consequently, it was recommended that there should be a distinction between "nice-to-know" and "must-know," that management purposes should be highlighted, and that compliance should be consistently ensured.

VI. EVALUATION OF THE METHOD

Overall, the MIS did not perform the functions for which it was designed. Specifically, systematic information on projects was not collected and consolidated. Internal project management information was not consistent, collated, disseminated or systematically used for management decisions or reporting. Feedback to country teams tended to be vague, sporadic and

without specific guidance. Anticipated timely reporting, analysis and information sharing did not occur. Some use was made of reports for financial modifications, amendments of plans and for descriptive listings of project activities. The program indicators never materialized into useful tools for monitoring and recording overall changes in financial management practices. The MIS never became functional at the regional level.

However, some aspects of the MIS were employed with mixed results. The existence of country team data bases, though not perfect, were inspired by, but not integrated into the SRFMP/W MIS. These provided very useful foundations for country team programs and for the mid-term evaluation. However, regional management reports by SRFMP/W were not detailed or systematic, nor did they have a consolidated data base which could be referenced if necessary. Some evidence suggests that more systematic use of the MIS was incompatible with the director's management style. Its design to share information did not match his bureaucratic, directive and personalized practices. Similarly, there was an attempt to modify the text of the mid-term evaluation report, making changes that were not warranted by field comments or objective data. This could be interpreted as falsification of results This experience reflects the extent to which systems are at the mercy of individuals who play dominant roles in their operation, management and use.

Because of the incompatibility of the MIS with the styles and practices of managers and key users, the MIS can be viewed as certainly less than effective, if not nearly a failure. There were no consolidated reports after two years of SRFMP operations nor systematic reports on overall country and regional impacts. The data base for comparative studies is very weak. Commitment to the mechanics of the system is nearly totally lacking--except for mandatory requirements that were used to ensure funding of country programs.

The costs for the system were also criticized. A large portion of the time of the Principal Investigator and a consultant over two years was charged to system development. Another element of cost, the amount of time required by some teams to meet reporting requirements, was also criticized as unjustifiably high. This reflects the extent to which the MIS was not integrated into operations, but was an "imposed" external requirement. The development costs were extraordinarily high compared to apparent benefits. This may be due, however, to the lack of experience and the innovative nature of the MIS.

The above analysis may suggest that the MIS was a waste of energy and time. However, there is another perspective. It did perform some of the functions intended from conception. It provided a "vision" of the project which did become the basis for strategic and operational plans and program decisions made by the country teams in their relatively autonomous units. It did reinforce the distinct SRFMP methodologies including third-party roles, action-training, performance-oriented approaches, and project impact analysis. Based on a shared project approach, teams modified their visions, the concepts, and, consequently, the tools to meet their specific country needs.

The conceptual base of the MIS also provided a common framework. Data was obtained and analyzed by country teams on the most critical objectives of the project. By drawing periodic attention to the operational objectives, project goals were continually reinforced and reinterpreted in light of environmental and operational realities. Finally, the MIS provided the basis for some exciting innovations for enhancing financial management improvement and project management. Two innovations were the "institutional field of opportunity" and the "financial management improvement program model." These were introduced late in the project and were very useful for analyzing country workplans and reports. They will be used for the final stage of the present project and formed a framework for future planning.

In the later stages of the project, institutionalization and capacity-building began to receive higher priority than certification and narrow accountability for donor funds. The "institutional field" is a tool for analyzing and formulating long- and short-term strategies and plans. It identifies five strategic choice areas--target of change, functions for change, scope of intervention, levels of intervention and performance objectives. For each of these dimensions, possible elements are identified and presented in an array. These form a grid for promoting decisions of priority within each array and for portraying the logical relationships between arrays or choice areas.

The "Program Model" is a management, monitoring and evaluation framework and tool which is based on generic change strategies which involve systematic steps for collaboration and adaptation when introducing and carrying out change or development efforts. The generic steps of needs analysis, sensitization, systems development, adoption, adaptation, nurturing and evaluation are defined in a Financial Management Improvement Cycle reflecting the experience and topic focus of the project. The change cycle in relation to functional areas of change form a grid. The grid is used to map activities for planning, monitoring, or evaluation and as a tool for analysis and feedback on focus, process and emphasis. This has proven very useful for country teams and, on a regional basis, for understanding and guiding the project.

Finally, the MIS established a norm of sharing program information and training/consulting materials between countries and between regions. Overall, this led to improved quality of some materials (accounting systems, project officer training, assessment checklists, etc.) and to higher efficiency for teams which could build upon work done by others.

EVALUATION OF THE INDONESIA LOCAL GOVERNMENT TRAINING PROJECT (LGT-II) PROJECT MANAGEMENT SYSTEMS (PMS) COURSE

I. BACKGROUND

The purpose of the Local Government Training (LGT-II) Project is to enhance the institutional capacity of Badan Diklat to provide effective management training to Indonesian public servants. Badan Diklat is the training directorate housed within the Departemen Dalam Negeri. Departemen Dalam Negeri is charged with running government affairs and appointing public officials at the national and provincial level, and is a key ministry within the Indonesian government.

The LGT-II project (Project Number 497-0308) is a $15.4 million project that began in 1981 and will run through 1986. The project was funded by USAID in recognition of the need to improve management capacity at the national and the regional levels.

Besides Badan Diklat and USAID, the other major actor is PADCO, a U.S. consulting firm, based in Washington, D.C. PADCO is contracted to provide approximately 25 man-years of technical assistance support.

The major activities of PADCO were to develop curriculum, train trainers, and in general create an institutional capacity for Badan Diklat to conduct regional planning and analysis training courses. A smaller, but important, component of PADCO's workscope called for establishing an institutional capacity to conduct Project Management Systems (PMS) courses. To conduct the PMS component, consultants from the USDA's Development Program Management Center (DPMC) and the University of Maryland's International Development Management Center (IDMC) were asked to assist. Terry Schmidt played the lead role in this effort. Schmidt's assistance consisted of four different consulting trips to Indonesia, during which he worked with PADCO and Badan Diklat staff to conduct a needs assessment, develop and test pilot training programs, train Badan Diklat trainers to conduct the training, and coach them during their initial training experiences.

II. ROLE OF EVALUATION/MONITORING IN THE PROJECT

Both Badan Diklat and PADCO recognized the importance of evaluation and monitoring of the Local Government Training project, but had not succeeded in integrating monitoring and evaluation practices into their activities.

This case study was written based on information provided by Terry D. Schmidt (IDMC Associate).

Monitoring refers to the monitoring of inputs, budget expenditures and the completion of scheduled project activities. Evaluation relates to the measurement of ex-post facto project impact, examining the long-term effect of an activity. As applied to the ongoing LGT-II regional training effort, measuring impact was considered a difficult task as the benefits were expected to occur years after the project was finished.

There was recognition of the need for better monitoring and evaluation by the Minister of Departemen Dalam Negeri and the Kapala (head) of Badan Diklat, as well as by USAID Indonesia. One concern was to determine what impact the Local Government Training II Project was having.

The Project Management Systems workshop component provided the opportunity to apply selected evaluation and monitoring concepts in an exciting way to one training activity within the LGT-II project. Unlike the nine-month regional planning course designed to teach general skills, PMS was a two-week course whose participant action-planning approach provided a more suitable basis for conducting evaluation studies.

The PMS courses introduced in Indonesia had been developed over a period of ten years by Schmidt and a number of other development professionals (e.g., Marcus Ingle, R. Moses Thompson, Larry Cooley) in work in a variety of developing countries. A key feature of this workshop was that participants were taught the basic concepts of project management and then were asked to apply them to actual projects during the workshop itself.

The PMS course involved the first significant use of training evaluation by Badan Diklat. The use of evaluation techniques began with a course given to 30 senior officials in January 1984, the second time the PMS course had been offered. Evaluation was important because several dozen PMS courses were planned over the following two-year period.

The purpose of the evaluation was to meet several objectives. Evaluation would provide explicit feedback to Badan Diklat concerning: (a) the validity of PMS concepts in the Indonesian working environment, (b) procedural or regulatory constraints to on-the-job use, and (c) the quality of the teaching.

There were several events that triggered the evaluation -- PMS had the strong support of the Director of Badan Diklat and top management in general, substantial resources were to be invested in the PMS course, and the subject matter lent itself to effective follow-up.

In Logical Framework terms, the <u>output</u> of each training workshop was 24 to 30 government officials trained in PMS concepts. The <u>purpose</u> was that participants applied the concepts on the job to priority development projects to support the <u>goal</u> of more effective and timely implementation.

Measurement was focused at the purpose level and on key assumptions. The Logical Framework carried an assumption that government procedures and regulations would not stymie or prevent effective utilization, and the follow-up measurements would test this assumption. But the emphasis was on

the purpose level, evaluating whether, in fact, the participants were using what they had learned. In the process, sufficient data could be gathered for later evaluation at the goal level.

III. SELECTION OF EVALUATION/MONITORING METHODS

The evaluation approach used was a variation of the PAPA (Participant Action Planning Approach) method first developed by the U.S. Civil Service Commission (now Office of Personnel Management). This approach was selected for its simplicity in data collection and analysis. The approach would provide Badan Diklat and PADCO staff with insight into the extent of utilization on the job (purpose level objective), and help identify the possible constraints. This information would feed back into the design of future PMS courses.

The PAPA approach is based on following up on the post-workshop actions that participants stated they would undertake. Because PMS is a very action oriented subject, with substantial emphasis given to identifying what participants will do after the workshop, this seemed an appropriate approach.

IV. MAJOR CHARACTERISTICS OF THE DESIGN

The first nine days of the PMS workshop were devoted to teaching essential concepts of project design and management, including use of such tools as the Logical Framework, responsibility charting, resource budgeting, and project scheduling. These concepts were taught through brief lecture and application to sample cases in small work groups.

The tenth and final day was devoted primarily to action planning, in which each participant developed a written plan for how he or she would use what was learned. The development of these action plans was the key step both for linking the concepts to the job, and for simultaneously providing course developers to conduct the evaluation.

To help participants develop action plans, the trainers provided examples of some of the different ways the concepts could be used formally and informally on the job. They described actual experiences that other people had gone through after the workshop. These included, for example, use of the Logical Framework for planning one's own project, for organizing the work unit, or for putting routine activities into a project format. Other possible action steps included informally teaching the concepts to colleagues, briefing the governor or other high officials on the PMS approach, and other actions to promote the use of better management.

After participants had some ideas of ways the concepts could be used, they were grouped according to region. (At each workshop, participants were from several different regions and organizations. For action planning purposes, they were grouped by region so as to establish some linkages with each other in their back-home environment.)

Participants in the small groups discussed their ideas for about 30 minutes and made a list of these. Each regional group (between five and seven groups of three to four persons each) was asked to publicly share with the entire workshop group some of its best ideas. By so doing, all participants were exposed to a broader range of possible action ideas.

V. DATA REQUIREMENTS

As a final step, participants were asked to develop a written action plan for the application of what they had learned within their roles as managers and as teachers. They were asked to identify the steps they were planning to carry out and by what date. It was suggested that they consider forming action plans around organizing and running PMS courses, serving as a resource person on PMS, promoting PMS courses, applying PMS to priority projects, and teaching PMS concepts and tools to one's own staff.

Participants identified, on the average, between five and seven action items. For example, one participant planned to use responsibility charts with his staff to resolve issues of coordination and duplication of effort. Another participant planned to develop a Logical Framework for the new projects he was designing to submit in support of budget requests. They were cautioned to put down only things that they planned to do, and not to simply write down items for the benefit of the trainers. Before the workshop adjourned, copies were made of each plan with the participants retaining the original and the Badan Diklat training team keeping a photocopy.

VI. DATA COLLECTION

About three months after the workshop, the PADCO consultants telephoned each participant and had a ten-minute discussion concerning his or her action plan. With a copy of the action plan in front of him, the consultant went through each item and asked about the progress made on each. Participants were asked if they had done these activities, and what were the results. If they had not done the activities they were asked why.

VII. DATA ANALYSIS

Surprisingly, about 50 to 60 percent of the activities that had been planned had actually been carried out. For verification, participants were asked to send photocopies of written reports, completed logframes, or other evidence. In those cases where the item had not been carried out, further questions were asked to determine why. The responses were classified by the consultants into several categories: no opportunity, no time, lack of supervisor support, incomplete understanding of the concepts, or procedural constraint.

Information regarding applications of the concept was collected for use in future workshops and PMS newsletters. Reasons as to why the concepts were

not used were considered valuable information, and the training team categorized these. In those situations where the lack of use was due to improper understanding of the concept, changes could be made in the workshop itself. In those cases where the problem was due to lack of supervisory understanding, plans were made for executive briefings at other levels. In those cases where government procedures did not support use of the concept, the inhibiting procedures were documented for later action. One important finding was that participants who planned to teach PMS to their colleagues thought they did not have the appropriate training and support tools. Based on this, Badan Diklat contracted with DPMC consultants to write some supporting PMS materials.

VIII. USE OF DATA MANIPULATION TOOLS

The volume of data did not warrant the use of data processing equipment for its analysis. However, as future workshops are evaluated, the volume of information will grow. It would be valuable to classify and track by computer the usage of PMS by region, type of project and organizations involved.

IX. REPORTING

A report was prepared by the PADCO consultants for Badan Diklat management. The report summarized the action items that each participant had identified at the workshop, then commented on what had and had not been accomplished. It summarized the reported reasons why some plans were not carried out successfully. This report was first written in English and then translated into the Indonesian language.

The report was well received by Badan Diklat key managers. They commended PADCO on the quality of the work, for indeed this was the first time that such an effort had been undertaken.

X. EVALUATION OF THE METHOD

There were several benefits to this evaluation approach. First, the evaluation was based on the use of participant action planning. This kind of planning helped to overcome one of the major problems in training courses -- lack of on-the-job applications. The action planning session of the workshop, during which participants put in writing specific actions they planned, created a bridge to on-the-job use.

A second major benefit is that it was simple and inexpensive. The subject of the evaluation was clearly identified and contained in the action plans themselves. A third benefit was that the results obtained could be used to improve future workshops, and provided the basis for actual case studies of PMS applications.

One of the major difficulties of the approach concerned the need to contact each person by telephone. Telephone communication in Indonesia, a country of many islands, is difficult at best. This difficulty could perhaps be reduced by the use of written questionnaires, but this would not allow for follow-up questions and discussions with participants. A possible bias exists in that we were relying on the participants own report of what they did and did not do. There may have been a tendency to state actions that were in fact not carried out, or to over dramatize the results they achieved. This could be overcome using a more costly evaluation design in which evaluators would travel to the various regions, and discuss with other people (e.g., the supervisor) the actions that were taken.

XI. COSTS

The evaluation involved little cost. Ignoring the trainers time to help participants develop action-plans (which would occur with or without the evaluation), it took about two person-days for the follow-up calls and another three days to assemble the report. Other financial costs were limited to phone calls and report duplication.

XII. SUMMARY OF KEY LESSONS

A real constraint to evaluation in general is that a host of urgent operational needs compete with the time and attention of key staff. If these demands on staff time are high, evaluation will not get done.

The primary virtue of this evaluation approach is that it was inexpensive and easy to carry out while providing useful feedback that could be used immediately to improve training. It provided a better understanding of the practical constraints to effective on-the-job use of the project management techniques, and it helped identify procedural bottlenecks for possible action by the Minister. In addition, this evaluation approach can be carried out by relatively unskilled personnel.

The evaluation resulted in two types of changes. First, the finding that the PMS course participants were able to apply the PMS concept after a course of two weeks led to a redesign of the longer regional planning course. This course was cut from nine to four months, and several of the PMS modules (e.g., means-ends analysis and the Logical Framework) were incorporated. The PMS terminology and definitions (e.g., goal, purpose, outputs, and inputs) were incorporated into the regional planning courses.

Second, based on the evaluation findings, changes were made to subsequent PMS courses. The initial "generic" case studies were replaced by Indonesia-specific cases. A unit on contracting and procurement was added. An explanatory book on PMS was written. Most importantly, the decision was made to expand PMS training capabilities to the regional training centers and to expand the number of courses provided.

MONITORING AND EVALUATING MANAGEMENT IMPROVEMENT IN HAITI'S MINISTRY OF PLANNING

Given the complexities and uncertainties involved in building organizational capacity for improved performance, the monitoring and evaluation of projects with management improvement objectives faces particularly difficult problems. This paper describes how these problems have been dealt with in a USAID/Haiti project currently being implemented. The case author participated in the design of the project as a member of the Project Paper (PP) team, and subsequently was recruited by the Mission to serve as the resident technical advisor to the Ministry of Planning (MOP).

I. PROJECT OVERVIEW

The project with the MOP's "Direction d'Evaluation et de Controle" (DEC) is a component of the USAID's Technical Consultants and Training Project (521-0167). However, it is a sufficiently discrete set of activities so as to be treated by AID and the MOP as a project in its own right, and is called the DEC Capacity-Building Project. Implementation began in October 1983 and is scheduled to be completed in May 1986.

The project emerged from the USAID's desire to strengthen certain key Government of Haiti (GOH) public sector institutions that play an important role in the management of Haiti's development efforts. This strengthening is intended to complement the Mission's strategy initiative in private sector development. The MOP is charged with the programming and oversight of the GOH development budget, of which about 75 percent is donor-funded. Within the MOP the DEC has specific responsibility for allocating resources among projects, monitoring disbursements and implementation progress, and evaluating project results. GOH interest in the project sprang from the Minister of Planning's assessment of difficulties in effectively fulfilling the monitoring and evaluation aspects of the DEC's responsibilities.

The objective of the project is to improve the effectiveness of the DEC in carrying out the MOP's monitoring and evaluation functions in ways that contribute to better GOH project implementation. The focus of project activities to attain this objective is threefold: the DEC's management information system (MIS), its organizational procedures, and its staff capabilities. Project outputs include the following:

- Modification and improvement in the DEC's MIS,

This case study was written by Derick W. Brinkerhoff (International Development Management Center, University of Maryland)

- Creation of a capacity to monitor and evaluate project progress and performance, and

- Application of the new capacity to GOH development projects.

The life-of-project funding is $440,000 from AID, and a GOH contribution of approximately $200,000. Of the AID funds, USAID/Haiti has provided 90 percent, and the Science and Technology Bureau's Office of Rural and Institutional Development (ST/RD) has furnished ten percent through its Performance Management Project (936-5317). This is an applied research effort in management improvement methodologies that seeks to build knowledge about effective management practice in developing countries. The joint funding of the DEC project led to the inclusion of an additional set of outputs: documentation and analysis of the DEC capacity-building experience in order to distill lessons learned.

The project is being implemented through a PASA with the U.S. Department of Agriculture's Development Program Management Center (DPMC), which furnishes one long-term resident advisor complemented by periodic short-term technical assistance. The DPMC has subcontracted the resident advisor position to the University of Maryland's International Development Management Center (IDMC). Both DPMC and IDMC are implementing agents for AID/ST/RD's Performance Management Project.

The project, therefore, combines technical assistance and research aims. The major thrust of the effort is to strengthen the DEC's performance capacity, thereby contributing to USAID/Haiti's development goals. However, the experience gained in carrying out the project also serves AID/ST/RD's research goals by providing feedback on the utility of the management improvement approach used, and hence contributing to their refinement and improvement. This combination of aims resulted in a split approach to the project's monitoring and evaluation.

II. THE DEC PROJECT'S MONITORING AND EVALUATION APPROACH

Because of the project's dual aims, it developed two approaches to monitoring and evaluation. These two overlap to some extent but can be separated into one set of procedures designed to meet Mission needs for project implementation monitoring and eventual end-of-project evaluation, and another designed to answer AID/ST/RD's research questions concerning the effectiveness of the project's technical content.

Approach to Meeting USAID/Haiti Needs: Apart from stating that a final evaluation will be undertaken, the Technical Consultants and Training Project (TCTP) Paper mentions nothing specific about monitoring or evaluation activities. The Haiti Mission, however, has a project tracking system, the Joint Project Implementation Plan (JPIP), through which it monitors project progress. The JPIP system, designed in late 1981 and installed in 1982, originally called for a detailed set of financial and activity data to be provided on both a life-of-project and quarterly basis.

In early 1984, the level of detail was substantially reduced in response to USAID project officer workload constraints.

As part of implementation start-up, the DEC resident advisor met with the USAID project officer responsible for the TCTP's MOP component to devise a reporting mechanism that would provide the Mission with the information needed for the JPIP. A quarterly report document was designed consisting of four sections: project overview, major accomplishments for the quarter, implementation issues and problems, and an action plan for the next quarter.

These latter three sections were the same as those in the JPIP quarterly project status report (QPSR), and their contents were prepared in a format that combines underlined summary statements with explanatory detail. The USAID project officer used the summary statements as the information input for the QPSR, which is computerized on the Mission's Wang word-processing system.

This element of the project's monitoring and evaluation approach responded to AID's standard management information needs: is the project making progress toward its intended outputs on schedule? Agency response is triggered only by a negative answer to this question. The project's quarterly reports fulfilled this periodic monitoring task, and also provided a summary of implementation experience of eventual utility for Mission project evaluation purposes.

Approach to Meeting AID/ST/RD Needs: In the context of ST/RD's Performance Management Project's research objectives, the DEC project is one case among several from which it is intended that a set of generic lessons for management performance improvement will be drawn. Selection and design of a monitoring and evaluation approach were undertaken in consideration of the following critical factors:

- The monitoring and evaluation method must generate data comparable across cases.
- It must deal with the complexities of cause and effect linkages inherent in social phenomena.
- It must produce analyses and findings both easily accessible to, and perceived as relevant by, practitioners while meeting some set of accepted social science methodological criteria.
- It must be able to be piggybacked onto technical assistance activities at minimal additional cost.

The initial design of the DEC project incorporated a model of organizational performance improvement that has been distilled from a wide base of managerial research and practice; it is this model that the Performance Management Project seeks to test and refine. The model informs: a) the DEC project's technical content by providing a what-to-do guide in order to attain its objective, and b) its monitoring and evaluation approach by indicating what to track and what to analyze.

Simply stated, this model posits that improved organizational performance is a function of an organization's ability to manage itself strategically. How to achieve improved performance builds from the research-supported premise that all organized activity, in order to be feasible, must fulfill certain generic functions. These functions apply equally, for example, to community self-help groups, agricultural cooperatives, or central government ministries. Effectively fulfilling the functions, combined with a set of supportive environmental conditions, means that the organization can manage itself, build a satisfactory level of performance, and sustain this over time.

The generic management functions include: clear and shared objectives; consensus on strategies and means for attaining objectives; agreed-on and delineated roles and responsibilities; incentives and sanctions in support of goal-directed behaviors and actions; and feedback, guidance, and adaptation mechanisms. Efforts to build strategic management capacity involve undertaking actions designed to strengthen the organization's ability to fulfill these functions. Figure 1 graphically illustrates the model.

III. MAJOR FEATURES OF THE MONITORING AND EVALUATION METHOD

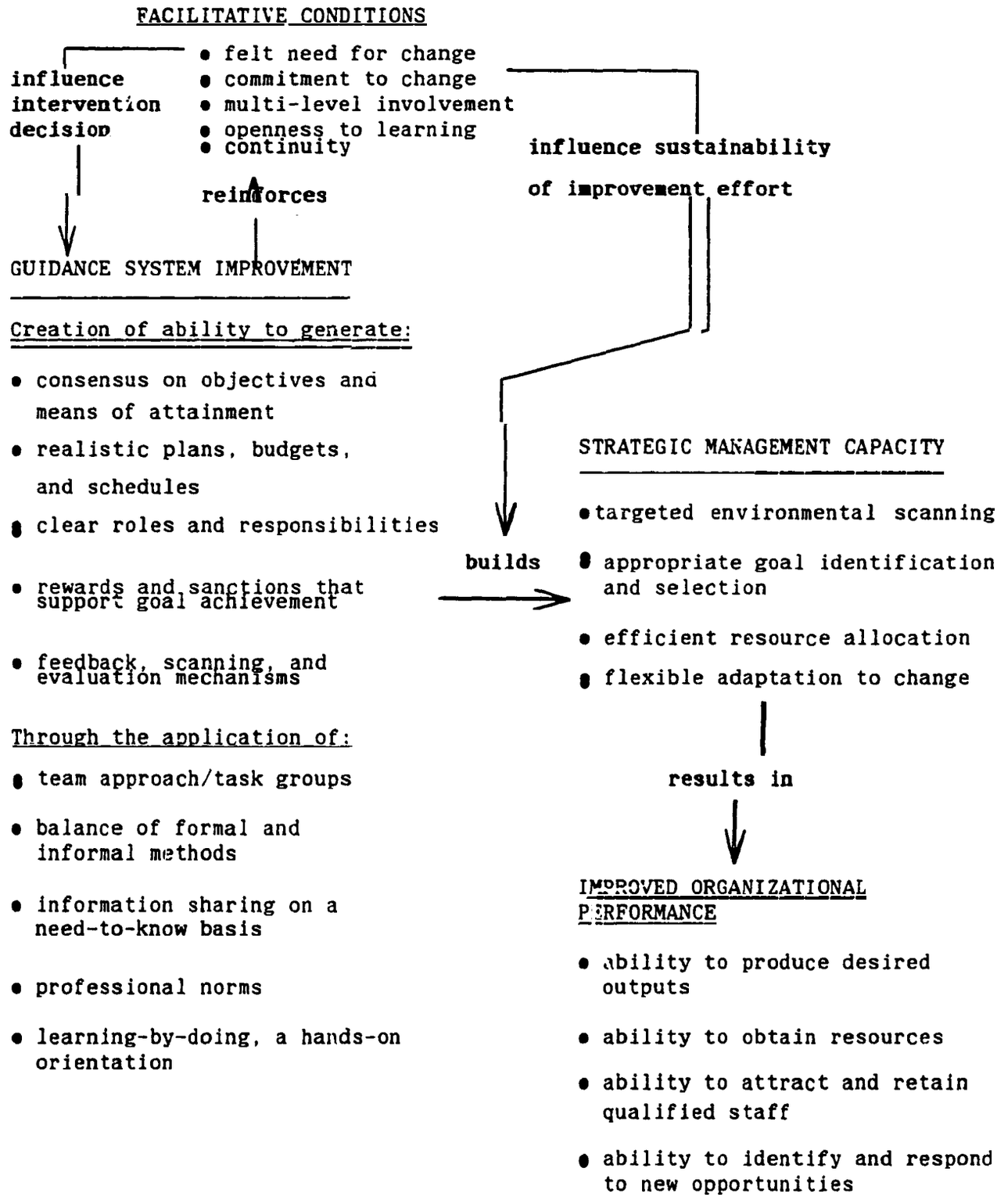
The monitoring and evaluation method that the DEC project employed applies the techniques of action research in tracking and analyzing the key variables derived from the Guidance System Improvement Approach (GSIA). Action research, the approach to applied research selected for the project, involves iterative cycles of problem diagnosis--planning--action--rediagnosis to organizational change interventions as a means to meld the active solution of immediate problems with reflection on the effectiveness of those solutions in order to improve problem-solving capacity in the long-term as well as the short-term.

The action research mode compresses the usual time lag between monitoring and evaluation by stimulating a search at the start of implementation for answers to questions usually reserved for end-of-project assessment. This practice allowed the project to assess its effectiveness during implementation and to make mid-course adjustments based on a continuous tracking and evaluation of progress.

The DEC Capacity Building project's targets were established based on a Logical Framework prepared in initial form by the resident advisor along with DPMC and IDMC staff, which was then slightly modified in collaboration with DEC staff. Because the DEC project was part of a larger project, the overall TCTP Logical Framework was insufficiently detailed for either monitoring or evaluation of the DEC work.

The outputs of the DEC's Logframe were subdivided by the resident advisor and his counterparts into quarterly action plans that served as implementation guideposts. Following project start-up, their first action plan was prepared with a six-month horizon. Implementation experience in

CONCEPTUAL MODEL: GUIDANCE SYSTEM IMPROVEMENT APPROACH



the constantly changing MOP setting, however, soon demonstrated that six-month detailed targets were too ambitious. The advisor and DEC staff reduced the planning horizon to three months. At quarterly DEC meetings called by the advisor, accomplishments for the preceding quarter were noted and action steps for the next quarter laid out. This information comprised two sections of the quarterly reports submitted to USAID Haiti and also to AID/ST/RD.

This process set up a rolling implementation plan that was adjusted every three months. It sought to build a guidance system that was appropriate for the degree of turbulence in the project's implementation environment: one that could adapt successfully by providing realistic yet flexible targets. Occasional major readjustments were required to assure that this iterative flexibility did not lead the project too far from its intended outputs. For example, after eighteen months of operation, the resident advisor held a planning workshop with the DEC's management group to reassess progress in light of protracted delays in follow-on funding that had repeatedly altered quarterly plans. Guided by the advisor, the group analyzed progress to date and rated each output category in terms of degree of progress, discussed the reasons for the current situation, and then agreed to a general replanning exercise for the remaining life of the project (one year) in order to serve as a revised guide for the more detailed, quarterly action plans.

This workshop is a good example of how the applied research monitoring and evaluation mode was used to improve implementation success. Data collected by the advisor were employed by DEC management to evaluate progress, and served as the basis for both a reaffirmation of the utility of the project's outputs and an adjustment in the means to achieve them. The workshop clearly illustrates how monitoring and evaluation information was used to shape action.

However, the focus of the applied research monitoring and evaluation method was wider than just the attainment of quarterly targets. It concentrated data and analysis around the elements of the GSIA framework. Each of the sub-elements in the framework were monitored: at a gross level along a presence-absence scale, with qualifiers added for a finer-grained analysis.

For example, in monitoring the Facilitative Condition "Commitment to Change," it was first necessary to specify this variable by organizational actor--DEC staff, MOP top management, donor agency, line ministry--and then add a dimension specifying the effectiveness of the commitment. This fine-tuning was necessary due to the observation that while MOP top management espoused commitment to the organizational changes to be put in place by the DEC project, that commitment only rarely translated into concrete support to the project. This finding suggested a refinement in the GSIA's specification of this component of the model.

Following the specification by actor and qualifying the variable in terms of effective commitment, the advisor devised a set of rough indicators to use in assessing effective commitment to change. For DEC staff, for example, indicators included: regular allocation of worktime to project activities despite competing demands on available time, espoused enthusiasm for project

objectives in the face of implementation setbacks, and willingness to confront other MOP personnel about the problems with current practice. While measurement was admittedly subjective, such indicators, and other similar ones, nonetheless proved useful in judging progress with the management improvement effort at the DEC.

As these examples indicate, the project's monitoring and evaluation method employed mainly qualitative data, collected by the resident advisor using participant observation techniques and supplemented by some periodic interviewing. The elements of the GSIA do not lend themselves readily to quantification, and collecting and analyzing data on them necessarily means dealing with words, not numbers. As a result, data mainly took the form of situation descriptions at particular points in time, with choices of what to describe guided by the GSIA. Baseline data, for example, consisted of a descriptive "picture" of the DEC and the MOP prior to the start of the project. This "picture" was compiled partly during PP preparation as input to the document's institutional analysis, and then was modified during reconnaissance updates at the start of implementation.

During implementation, however, data collection was continuous, with the resident advisor keeping a project diary/log that recorded in detail events, activities, interpretations, and impressions. The log emphasized process as well as outcome data; that is, how things took place besides what happened. Every two weeks the notes in the log were assembled into a bi-weekly activity report which varied in length between two and ten pages. These reports were submitted to AID/ST/RD, DPMC, IDMC, and to USAID/Haiti for information. The activity reports were extremely useful as an information base upon which to draw for the preparation of quarterly reports. They provided the resident advisor with details to compile accomplishments for the quarter and to assess the quarterly action plan. This is another illustration of how the project's research-oriented approach to monitoring and evaluation contributed as well to fulfilling the progress reporting needs of USAID/Haiti.

Directly related to the project's applied research aims, the quasi-anthropological data base that the project built served as the information foundation for analyzing and refining the linkages among the variables in the GSIA over the life of the project. This analysis and refinement took place through interim reports prepared by the resident advisor and through ongoing discussion among the advisor, IDMC, DPMC, and ST/RD. The final product of the project's monitoring and evaluation component will be a case study of the DEC experience analyzed in terms of its success in achieving its objective and of the extent to which it confirms or disconfirms the conceptual validity of the GSIA as a replicable model for management improvement. This case study will be prepared by the resident advisor and submitted to IDMC, DPMC, and ST/RD at the end of the project.

IV. ASSESSMENT OF THE METHOD

The monitoring and evaluation method used in the DEC project has facilitated the project's response to the information needs of both USAID/Haiti and

AID/ST/RD. The relatively straightforward needs of the Mission have been fully satisfied by the quarterly reports submitted by the resident advisor. Regarding the more complex information demands of ST/RD's applied research aims, on the monitoring side the method has provided AID with in-depth information on implementation progress at a level rarely found in AID-funded projects. On the evaluation side, because the project is still ongoing, only an interim assessment can be made. However, it appears that the method is building a database that will permit an evaluation of the project's experience in terms of the GSIA.

There are, nonetheless, several concerns with the method that should be mentioned. As with all applied research efforts, where action and research are combined, the project has had to make some trade-offs. The major one is the choice between providing technical assistance and doing research. Given that there is only one person at the DEC on a long-term basis and that the major emphasis of the project is on technical assistance, research is necessarily secondary. Under the action research mode, these two project components are integrated; but there are still compromises, mainly in the breadth and depth of data collection. The resident advisor does not have time to engage in formal data gathering and analysis that are not an integral part of his day-to-day activities.

This trade-off has meant that the adoption of an informal, participant observation method for project data collection was as much a product of necessity as of choice, given resource levels. From the perspective of mainstream social science, in which valid findings derive from carefully controlled interventions modeled after the physical sciences laboratory experiment, this method diminishes empirical rigor because the data are presumed to be "contaminated" by the resident advisor's involvement in the intervention as an actor, not simply an observer. However, there is another stream of thought in social science that questions the causal link between ignorance of, or lack of involvement in, a particular situation and objectivity regarding it. Especially for the quasi-ethnographic method employed here, some familiarity with the setting and the phenomena of interest is increasingly viewed as a prerequisite for its effective utilization, and offsets the presumed bias derived from being a part of what is under study.

Another concern has to do with the skill and background requirements needed to apply the method. It is dependent upon people with a high level of social science training who, in addition, possess the practice orientation called for to provide technical assistance in management. Without this mix, the piggybacking of research onto action at low extra cost becomes impossible. In sum, the use of the method requires people who:

- are familiar with the project's larger environment (prior in-country experience) and with the phenomena to be researched,
- are conceptually oriented,
- bring a multi-disciplinary perspective, and

- offer a valued set of practical skills for technical assistance.

A further, related set of concerns stems from the features of qualitative data analysis employed by the project's monitoring and evaluation method. First, the method, by collecting, storing, and analyzing data in the form of words, quickly generates a large data base that can easily become overwhelming. Second, avoiding this overload and the risk of analytical confusion requires an explicit conceptual framework for guidance. Without such a framework, the method cannot be effectively used. Third, because qualitative analysis techniques are relatively new, they are neither as well developed, nor accorded the same confidence, as the "harder" tools of quantitative analysis. The method described here runs the risk of producing findings and conclusions that some may not feel are sufficiently grounded in the "facts," and thus are less valid or believable.

In the management field, however, there is a growing awareness that qualitative approaches to assessing organizational change interventions have a stronger potential for generating operationally relevant guidelines or conceptual breakthroughs than the narrow hypothesis testing of quantitative social science. The simplifying assumptions involved in translating organizational variables into quantifiable units for statistical manipulation lead the analyst so far from organizational reality that results may be methodologically valid, but practically irrelevant.

The method utilized for monitoring and evaluating the DEC project offers a level of data richness and detail that reflect the complexity of the socio-technical systems in which the project is attempting to intervene. While relatively more costly in time and funds than AID's standard output tracking and end-of-project evaluation, it holds the promise of generating an important payoff for AID's institution-building goals by helping to identify a set of generalizable actions that are associated with improved management performance and a set of conditions under which those actions can be successful. In addition, this method could be appropriate for testing and refining other technologies with significant social dimensions where it is critical to identify within a complex setting the factors associated with successful application of the technology.

A PLANNING, MONITORING AND EVALUATION SYSTEM FOR PL480 TITLE II FOOD FOR WORK PROGRAMS IN INDIA

I. BACKGROUND

In the Food For Work program in India, Catholic Relief Services (CRS) embarked upon a difficult and unique endeavor which has implications for FFW projects worldwide. It has implemented a Planning, Monitoring, and Evaluation System (PM&E) designed collaboratively by CRS and the Agency for International Development (AID) to measure program impact. Most importantly, this system has allowed program staff to reflect upon project and program results in a manner which permits them to design, plan and implement future project activities more effectively.

One of the rarest and perhaps most important characteristics of the CRS Food For Work system is its "from the bottom up," decentralized approach to development. The implementors of specific projects, the project holders, operate at the grassroots level. A significant percentage of the population served by the CRS projects is made up of the poorest of the poor with a substantial representation of Harijans and tribal groups. Project sites are frequently in remote areas which have few, if any, governmental services.

The need for variety in project type is, therefore, great. The highest priority need in one region is often relatively low in another. While CRS identified seventeen different types of projects spread among four categories, there are hundreds of variations on them.

The implementation environment introduces great diversity: India is a very large and diverse country both physically and socially. The program reaches many places that are very different from one another. Zone headquarters are located in Bombay, Cochin, Madras and Calcutta. The country headquarters is in New Delhi.

The CRS Food For Work program involved the contribution of food from the U.S. through AID's PL 480 Title II program to CRS-sponsored work projects. In 1984 there were 142 distributors of food, called consignees, each supplying food to several project holders who each had one or more projects. In some cases, a consignee was also a project holder. Each year several thousand small projects were completed.

This case study was based on the report, The Implementation of a Planning, Monitoring and Evaluation System for PL480 Title II Food for Work Programs in India, by William D. Drake and John D. Nystuen (Community Systems Foundation), June, 1984, and from conversations with Judy Gilmore (AID/FVA/PPE).

The Food Corporation of India (FCI) was responsible for inland commodity deliveries from port to consignee warehouses. Thereafter, the consignee was responsible for distribution to project holders. Distances were very great, except for the Cochin Zone, which is primarily in the State of Kerala. Difficulties in supply varied greatly by zone, being easiest for Cochin and most difficult for Calcutta. The Calcutta port facilities and operations were poor, and rail connections to the eastern states were difficult and uncertain.

Almost every Food For Work project proposed by a project holder was subject to a whole range of factors which made for a turbulent implementation environment. Commodity levels available in a particular season, and the time of arrival of commodities to the project site were other uncertainties. Shipping schedules for the United States were sometimes not kept. Occasionally, the commodity was delivered to the wrong port, thereby requiring a "juggling" of in-country transportation arrangements and the corresponding delivery schedules for nearby consignees.

CRS was dependent upon the Food Corporation of India (FCI) for delivery of commodities to the consignee. FCI assigned low priority to shipments, resulting in delays and unexpected deviations from the delivery schedule. Occasionally, there were labor situations, especially in Calcutta, which affected all ship unloadings including those of PL 480 Title II commodities. In short, the entire CRS system had to be prepared to adapt quickly to major changes in the availability of commodities.

Changes in commodity availability often forced changes in the project to be implemented. A well or dam could not be constructed if it was filling with water due to a delay in project initiation which pushed the project into the monsoon season. Thus the consignee had to either delay the project for a season or shift the initiation date of some other project in order to utilize the food in a timely manner. Since all of the commodities have a finite shelf life, it was impossible to simply hold them in storage until they were needed. Thus the consignee frequently attempted to juggle the implementation schedule of the projects under his or her jurisdiction. Sometimes what the variation in commodity delivery did not do, the vagaries of climatic condition did. Monsoons that did not arrive on schedule often created problems similar to shipping delays.

Finally, there were a whole range of variations which had to be anticipated during the implementation of the projects. If a well was being constructed, at what depth would water be reached and what type of soil or rock would be encountered along the way? What was the size of the workforce which could be assembled, especially if there had been a lapse or acceleration in the original schedule? What was the impact on the project of an unexpected availability of inputs contributed by other donor agencies? Conversely, how could the project be modified and carried out regardless of an unanticipated loss of non-FFW resources?

Perhaps the appropriate image of a project holder is an individual who constantly has to monitor the status of the planned project implementation schedule, and be ready to adjust to any number of deviations in the factors

outside his or her control. S/He has to weigh the impact of making changes in the project, and the disruption often caused by deviation from the plans, especially for those who can least afford a withdrawal of assistance.

The Planning, Monitoring, and Evaluation System (PM&E) described in this case was designed to help the project holder deal with the problems of project planning and implementation. The PM&E System was developed through a process that included these steps:

1. A series of eleven studies on program impact and beneficiary profiles was commissioned and carried out between 1981 and 1983.

2. A joint team of CRS, USAID and Community Systems Foundation (CSF) members spent an intensive month during July of 1983 formulating the preliminary design for the PM&E System and testing some of its components in the field.

3. A series of workshops on the PM&E System was held during the fall of 1983. Facilitated by a training organization, ACORD, these workshops provided valuable feedback on the system design. CRS then proceeded to sharpen the specific components and disseminate the results to both CRS zonal staff and selected consignees responsible for implementing Food For Work projects.

4. During early 1984 a substantial field testing of the instruments and protocol derived from these workshops was undertaken. Each of the four CRS zones tested both types of the analysis formats: one for capturing benefit and cost characteristics of income improvements projects (Beneficiary Improvement Analysis), and the other for describing the effectiveness of community-wide assets (Asset Effectiveness Analysis). Ninety-six analyses were performed and the findings were summarized by zonal staff members.

II. MAJOR CHARACTERISTICS OF THE DESIGN

The Planning, Monitoring and Evaluation (PM&E) System that was designed in the four-step process involved a number of activities at different levels by different actors. The first activity was on project analysis (Beneficiary Improvement and/or Asset Effectiveness) carried out on-site by a zonal FFW evaluator and a FFW field reviewer in concert with the project beneficiaries and/or project holder. Data was gathered from the concerned parties and the analysis was performed. The results were discussed and interpreted. Any errors were corrected, one copy was left on-site with the project holder, and a second copy was provided to the zonal office. Information on factors which might have contributed to program success was gathered from the project holder. In some cases, a pre-analysis was performed.

The second activity involved the utilization of a collection of project analyses by the consignee to consider alternative approaches to accomplishing project goals. The FFW evaluator helped articulate options

that had shown promise elsewhere and should be considered. The consignee was helped by the FFW evaluator to explicitly formulate goals wherever possible, and to fill out the next year's planning forms.

After the review and discussion of project analyses by the consignee and FFW evaluator, the discussion would become expanded to include the larger zonal staff and the entire group of consignees from that zone. Care was taken to avoid the assumption that higher output numbers were necessarily "better" and to look at other important, non-quantifiable factors. An effort was made to identify factors which were not readily amenable to quantification. The dialogue with the consignees was informal and drew upon information from other zones. Whenever possible, the zonal staff, including the director, met with small groups of consignees.

After the zonal meetings had taken place, CRS/Delhi reviewed the data and organized the information to reflect the benefits accrued (both quantitative and qualitative) by project type, management style, and amount and type of follow-up. Then CRS/Delhi, working with FFW evaluators, prepared case study reports and disseminated them to consignees at the annual All India FFW meeting. Finally, data and case study summaries on FFW program progress in India were presented to USAID/Delhi, AID/Washington, and CRS/New York.

III. DATA REQUIREMENTS, COLLECTION AND ANALYSIS

Data was required for the Beneficiary Income Improvement Analysis and the Asset Effectiveness Analysis as well as to complete other forms relating to the monitoring of the Food For Work process. Each analysis protocol told only a portion of the story in a Food For Work project. They were not intended to capture everything. Their main purpose was to promote a dialogue among zonal staff and consignee and project holder on how to improve project design and implementation. They were working well when they also facilitated transfer of knowledge about successful projects or project components from one consignee to another.

In order to ensure that the "bottom line" of the analysis (i.e. the benefit-cost ratio, payback period or cost-per-beneficiary ratio) was not the only factor considered in the dialogue, a review of the limitations of the analytic portion of the protocols was also done. Those factors which were not adequately reflected in the analysis became the subject of much useful dialogue.

For example, one area of limitation in the two analyses was the estimation of the useful life of the improvement. The calculated annual cost of the project is heavily influenced by the estimated useful life of the improvement. Estimates of project life varied depending upon the method of construction and the environmental conditions encountered. The longer the life of the project, the better the cost ratio. Because project life estimation was so critical to the outcome, it became an important subject for dialogue with consignees as well as a key factor for the analyst.

Other limitations in the analysis were that many other factors besides the asset improvement could have been responsible for the reported change in income or community benefit. For instance, a dramatic change in market price could heavily influence reported net gain. Climatic variation from one year to the next certainly affected the outcome. In addition, estimates by the farmer or project holder on situations which existed one or two years ago could have often been faulty. Sometimes even the perspective of the farmer changed so that in one year he included the opportunity costs of his own labor and in another he excluded it. It is important to restate that these results were for the purpose of promoting a development strategy through dialogue -- not for resolving basic scientific questions.

IV. EVALUATION OF THE METHOD

The Planning, Monitoring and Evaluation System came about after a lot of evaluations had been performed on the Food For Work projects all over India. The evaluations indicated that the program was reaching the poor and that incomes were increasing as a result. What the evaluations did not indicate was why the program was working, what caused the variations in results between projects, and what the costs of the program were. The USAID Mission in India wanted to develop an ongoing monitoring and evaluation system to respond to those issues. This system was developed in some innovative ways:

- The PM&E system attempted to look at costs, particularly local costs that were not usually considered.
- The system used existing staff to collect information, and the training of the staff was used as an opportunity to try out the system, see if it was viable on a long-term basis, and start to collect data on a routine basis.
- The information was forwarded to each level when it was needed and refined to meet the needs of each level.
- The cost of the PM&E System was spread throughout the program and did not rest too heavily on any one part.
- While the PM&E System did not specifically address social empowerment issues, these factors were addressed in the workshops and dialogues at each level of the monitoring and evaluation process.

V. COSTS

The monitoring activities and evaluation studies that occurred over a two-year period cost the Asia Bureau and the Food for Peace Office of AID approximately $25,000 in consulting costs a year each. It is estimated that the cost for CRS was about the same for staff time. After the start-up period, CRS was to assume all costs for keeping the system going.

It is important to note that a series of evaluations were completed on individual projects throughout India prior to completion of the system design examined here. This too involved about two years' effort at approximately $25,000 a year.

VI. KEY LESSONS LEARNED

- If a process is initiated with PVO involvement by AID, a monitoring and evaluation system can provide information on the PVO's performance without causing them to feel threatened by the information.

- The workshops used to set up this cooperative system were a successful strategy for involving all major actors in the design, development and implementation of the system.

- Acceptance of the system was facilitated by the involvement of all major actors in the development process from an early stage.

IMPACT EVALUATION: EVALUATION OF PL 480 TITLE II AND THE PROGRAM OF NUTRITIONAL AND HEALTH PROTECTION (PPNS), SENEGAL

I. BACKGROUND

The PL 480 Title II Food Assistance Program was mandated by Congress in 1954. The primary objective of the act was to combat malnutrition, especially among children. The act additionally sought to promote economic and community development in less developed countries.

In Senegal, approximately $10 million worth of food is distributed annually under this program to over 100,000 children. This distribution is accomplished through the assistance of Catholic Relief Services (CRS). CRS is also charged with the responsibility of educating the mothers of recipients about those factors which influence nutritional status.

The distribution of the food in Senegal takes place in over 400 feeding centers. Most of these centers are located in dispensaries that are run by the Senegalese Ministry of Health (MOH). The operation of the food distribution program and the MOH maternal and child health programs in Senegal are integrated into the Program of Nutritional and Health Protection (PPNS).

As part of its on-going program of administration of PL 480 programs, and in accordance with congressional mandate, the evaluation office of Food for Peace and the Nutrition Office of AID, Washington, performed evaluations of the Title II food distribution programs throughout the world. This evaluation project was part of that process. In addition, AID/Senegal requested the evaluation as part of an examination of its entire program in order to improve planning and to integrate its nutrition and health projects. And the Division of Nutrition of the Ministry of Health (DANAS) had been planning its own evaluation of the PPNS program in compliance with its mandate to evaluate the program for the Senegalese Government.

A joint evaluation committee was established which consisted of an evaluation team from the International Science and Technology Institute (ISTI), contracted by AID/Washington, and representatives of AID/Dakar, DANAS, and CRS. The aim of this committee was to determine if the objectives of the PPNS program were being met. Progress in meeting objectives was to be determined by examining measured or estimated impact of the program on the children of Senegal. On the basis of the evaluation, the

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This case study was based on the report, Evaluation of PL 480 Title XX and PPNS Program, Senegal, by Dean Echenberg and Harrison Stubbs (International Science and Technology Institute, Inc.) and conversations with Judy Gilmore (AID/FVA/PPE).

committee was then to implement changes that were recommended to improve the functioning of the program.

The committee carried out the evaluation in three phases. Phase I consisted of the evaluation design. Phase II included data collection and analyses. Phase III had not taken place at the time of this writing, but it was to be a workshop to discuss the evaluation findings and recommendations and to develop a viable action plan for program improvement.

II. FACTORS THAT INFLUENCED THE EVALUATION DESIGN

Originally, the Food for Peace Office in Senegal wanted an extensive impact evaluation that would include both biochemical and clinical tests. AID/Washington and FFP/Senegal engaged in a six-month dialogue about what sort of evaluation was really necessary. It was decided not to do the biochemical and clinical evaluations, primarily because of cost and logistical factors. The two offices agreed to do an impact evaluation that would identify factors associated with the effectiveness of the FFP program. The evaluation team worked collaboratively with the host country administrators of the program to design the evaluation so that it would primarily address the needs of these administrators.

In designing the study, the team hoped to accomplish four objectives. First, information was to be obtained which would illuminate the epidemiology of undernutrition in children in Senegal by a systematic examination of its distribution and the associated factors that might influence its prevalence. Second, there would be a comparison of families and children participating in the program and those not participating as a way of evaluating program effectiveness. Third, the evaluation of program effectiveness would also be based on an investigation of the relationship between a short-term interruption of food supplementation and the size and growth of a population of children participating in the PPNS program. Because of methodological difficulties encountered in this kind of investigation, the evaluation team was not expecting to find an association. Nevertheless, this part of the project was attempted in light of its potentially significant findings and the relatively low cost and effort involved in collecting and analyzing the data. Lastly, the evaluation would include an examination of overall program components such as the targeting of susceptibles, turnover of program participants, and education of parents. These components would be examined as a way of determining the adequacy of the program design in meeting the objectives of the program.

There were many factors that contributed to the manner in which this evaluation was designed. There were unique circumstances in Senegal which the evaluation team found could be used to the benefit of the evaluation and all involved groups. The first of these circumstances was the availability of various types of growth data. In Senegal, the monthly weights of all children seen in each center and their birthdates are registered in accordance with guidelines issued by the MOH. In addition, CRS/Dakar receives monthly reports on the size of the children in each center and the

amount of food distributed per child. This data is a part of CRS/Dakar's routine surveillance and monitoring system.

Secondly, there was an accidental disruption of the food supply to many of the feeding centers in early 1982. The evaluation design team hoped that this rupture, along with available growth data, might provide a demonstration of the impact of the food supplementation component of the program.

Thirdly, the evaluation team discovered that a cooperative study was being planned by the Centers for Disease Control (CDC) and the Senegal Bureau of Census (BNR) which would consist of a survey of a random sample of all mothers in Sine-Saloum and include the measurements and weights of all their children under six years of age. The evaluation team was able to suggest some additional questions for the survey to differentiate participants and non-participant families while controlling for access to feeding centers. They were further able to suggest questions which would assess the mother's knowledge of factors which might be related to their children's nutritional status. This survey would provide a description of the nutritional status of all the children in the region using the anthropometric measures of weight/age, height/age, arm circumference for age, and arm circumference for height.

Fourthly, the evaluation team identified a computer at the Ministry of Finance (MOF) in Senegal, which, with the addition of some technical aid, could be utilized to allow all groups to participate in the in-country analysis of collected data. Once the data was collected, however, the team decided to send it to the U.S. for processing because of the lack of sophisticated statistical programs for the MOF computer.

Lastly, a joint approach that involved all key organizations was planned to ensure that the evaluation would become an accepted and relevant basis for future planning. It was planned that all participants would engage in discussions of the important issues throughout the evaluation. The evaluation team hoped that this process would facilitate the implementation of any important changes in the program recommended as a result of the evaluation findings.

III. MAJOR CHARACTERISTICS OF THE DESIGN

This evaluation consisted of three phases: Phase I, the evaluation design; Phase II, data collection and analysis; and Phase III, the workshop.

Phase I: Evaluation Design

In May 1982, the evaluation team members from ISTI arrived in Senegal and visited 17 PPNS feeding centers. In addition, they held extensive discussions with CRS/Dakar, AID, and MOH representatives from DANAS. These team members designed the evaluation based on input from the three organizations.

Phase II: Data Collection and Analysis

During Phase II, data were gathered in Senegal according to specifications of the ISTI evaluation team members. These data were sent back to the Western Consortium for Health Professions in San Francisco for preparation and preliminary analysis. An integral part of this phase of the evaluation was to be the further analysis of this data in Senegal. To this end, the evaluation team returned to Senegal to continue analysis and incorporate participants' suggestions as to further uses. This critical and cooperative approach to analyzing the data helped to ensure the validity and acceptance of the findings. Phase II also included a field study to address other aspects of the program such as education, management, supervision, and training issues.

The data collection and analysis was designed in four parts. Part 1 was a study done with CDC in Sine-Saloum. Part 2 was an analysis of the data collected from all 457 feeding centers. Part 3 was the analysis of the growth data of over 6,000 children from 20 randomly selected centers. Part 4, the field work, consisted of two sections. The first section of the fieldwork was a series of interviews with the 45 randomly-selected center chiefs. Another component of the field work was a second series of site visits to yield more extensive data on specific program components in 16 of the 45 centers already visited.

Phase III: Workshop

This phase culminated with a workshop in April 1985 for host country program leaders and staff members of CRS and AID/Dakar to devise a plan for implementation of recommended changes. The specific goal of the workshop was to discuss the issues raised by the evaluation and produce a detailed and viable plan to implement program changes.

IV. DATA COLLECTION

The collection of data and preliminary analysis took place from November 1982, until April 1983. The data was collected from three sources.

The survey in Sine-Saloum province which provided the data for Part 1, was administered in November 1982. The survey utilized a random sample of all the children outside of the large cities. A questionnaire was given to the mothers, and the children were measured. These data were key punched in Senegal and then sent to CDC in Atlanta. A quick preliminary editing was done in April 1983, to provide a working data base for further use in Senegal. After the meetings held in Senegal in May 1983, further analysis was suggested and final work on this data base was accomplished in January 1984 in San Francisco. The clinical examination of a sub-sample of children in Sine-Saloum was performed by DANAS, and these data were thus available to be analyzed in Senegal.

Data collection for Part 2, an examination of the master charts at CRS/Dakar, began in February, 1983. These data revealed the percentages and

numbers of children in different categories of nutritional status for each of 400 feeding centers for the past 24 months. Information on food distribution was included to characterize each center. After being photocopied in Senegal, the master charts were sent to San Francisco for key punching.

Data for Part 3 were taken from the registers of a random sample of 45 operating PPNS centers. These registers included the weights on each child each month over the previous three years. A team in Senegal visited each center, obtained the growth register and asked the chief of the Centers a set of questions. The registers and the questionnaires were then photocopied and sent to San Francisco.

Although not envisioned in the original design, the evaluation team devised a fourth part to the evaluation. They developed a questionnaire to be used during their visits to the 45 centers. The purpose of these interviews, led by team members from DANAS, was to give center directors an opportunity to present their views regarding the program and to get their support for the evaluation process. As a result of this work, DANAS drafted a separate report based on the visits to all 45 centers. This DANAS team also performed more in-depth analysis of 16 of the centers.

V. DATA ANALYSIS AND USE OF DATA MANIPULATION TOOLS

Because the computer facility in Senegal did not have statistical programs available, it was decided that the data would be collected according to the evaluation team's specifications, and then sent to the Western Consortium in San Francisco for key punching, editing and initial analysis at the University of California at Berkeley. With the help of ORANA, a multi-national nutritional organization in Senegal which had provided other technical assistance to DANAS, further processing and analysis was planned to be done in Senegal. This furnished the Senegalese with their own data base to utilize in later planning and studies.

All useable growth data received in San Francisco was key punched, verified and cleaned. These preliminary examinations served to establish the validity of the data by seeing if expected results were found (e.g. the growth data were inspected for seasonal, as well as age and sex specific differences). In addition to cleaning the data and examining their validity, initial attempts were made to evaluate program impact on nutritional status as defined in the protocol.

In January of 1983, the evaluation team arranged for the BMDP statistical package to be sent through ORANA to the Ministry of Finance of Senegal. The provision of these BMDP programs was an important facet of the transfer of technology goals in this evaluation, since there were no comparable statistical programs available in Senegal at the time. These BMDP programs were prepared by ORANA for use in the in-country evaluation scheduled for May 1983. At that time, the data which had been processed and put on computer tapes would be further analyzed by all the evaluation participants.

Prior to its return to Senegal, the ISTI evaluation team presented its preliminary results to AID/Washington for comments and guidance. After arriving in Senegal, this evaluation team presented selected preliminary results to all representatives from AID/ Senegal, DANAS and CRS. During this meeting, the selected results were discussed and critiqued in detail by the entire group. Subsequently, the preliminary results were discussed in small working groups so that all participants had the opportunity to examine the data in detail and to discuss the findings more intimately with members of the evaluation team.

This process was valuable in eliciting ideas for the direction of further data analysis, since these groups were able to pose questions reflecting their own needs and concerns. Most importantly, representatives from AID/Dakar, CRS, and DANAS all contributed to the continuing analysis of the data. This approach fostered a common understanding.

Further data analysis was then accomplished in Senegal using data files on magnetic tapes that were brought by the evaluation team. All data files were turned over to the Division of Nutrition of the Ministry of Health, DANAS. A representative from ORANA performed statistical analyses for DANAS using the newly installed BMDP statistical programs.

As a result of the on-going data analysis in Senegal, many statistical results were refined and new important findings were obtained. However, because of time constraints and occasional unavailability of the Ministry of Finance computer system, certain important analyses could not be accomplished. A plan for the further analysis of the data to be performed in the U.S. was created by the evaluation team with the assistance of the representatives of AID/Dakar, DANAS and CRS.

In addition to the analysis of the data from Parts 1, 2 and 3, of the evaluation design, data analysis was conducted on data obtained during the in-depth field study of 16 centers. This field study was designed after the data had been gathered and partially analyzed for Parts 1 through 3 of the evaluation. For this part of the evaluation, questionnaires were developed in Dakar by representatives of CRS, DANAS and AID. Two field teams were sent out to visit centers in the Northern and Southern parts of Senegal. As a result of efforts to include representatives from all agencies on both teams, the trips fostered a great deal of fruitful collaboration and laid the foundation for positive future interactions.

During these field trips, questionnaires were administered to the center chiefs, the heads of the committees of mothers, and selected other mothers. A separate questionnaire was administered to all regional medical offices by DANAS. Some of the questions were constructed to obtain additional information on issues raised by the results of the earlier data analysis. Other questions were included to meet heretofore unaddressed questions raised by CRS, DANAS or AID.

Following the field work and the data analysis, a series of meetings were held in Senegal to consolidate the findings and to integrate the results of the field work with the data analysis. A preliminary document was prepared.

From these discussions, the evaluation team completed a summary of program effectiveness on which they based their recommendations to improve program effectiveness.

VI. COSTS

The evaluation cost more than $200,000 over a 2-1/2 year period.

VII. REPORTING

The following reports were generated:

- Pre-evaluation feasibility study
- Community Systems Foundation's initial design and analysis
- GOS in-field trip reports
- Data analysis and reports
- Final report

VIII. EVALUATION OF THE METHOD

A less expensive method could have been used but this evaluation as conducted has several strong points. Among the advantages of this design are:

- It resulted in the most complete nutrition impact evaluation yet conducted by FFP.
- It allowed for a comparison of participants and non-participants in the program and of families from participating villages and non-participating villages.
- The evaluation was conducted in an iterative process of design, data collection and analysis, and redesign which allowed for the participation of all key actors in an ongoing learning process.
- The pre-evaluation feasibility study dealt with the issues of what components had to be in place to do the evaluation, identified issues of data reliability and validity and in general contributed to the quality of the evaluation design.
- The evaluation design emphasized the comparison of program components to the specific impacts on the recipient population, although this was more difficult to achieve in actual implementation.
- The evaluation plan included arrangements for a final workshop

that will help contribute to meeting the goal of redesigning the project to enhance its effectiveness.

The limitations of this design are:

- The original plan was to build capacity in the GOS to do data analysis. Training in data analysis was built into the design and did take place. The analysis was based on what the GOS could do. However, there were constraints to the capacity building and the data, after being cleaned up by CRS in Nairobi, were brought back to the U.S. for final analysis.

- This approach takes a tremendous data analysis effort. Originally scheduled for one year with a budget of $100,000, this evaluation took over two years with a cost of over $200,000.

- This approach has sophisticated data requirements and needs a highly skilled epidemiologist.

- The involvement of multiple organizations and the complexity of the design made it important for the organizations and individuals involved in the evaluation to come to a common agreement on the purpose and methods of the evaluation.

IX. KEY LESSONS LEARNED

- In planning an evaluation, the possibility of taking advantage of other studies that are going on in the country should be investigated. Data collected and analyzed in other studies can sometimes be productively incorporated into an evaluation study.

- It is very important to link the impact portion of the evaluation with the evaluation of the program itself in order to identify the program components that have contributed to the impact.

- Use of a collaborative evaluation process is important, as it allows for the use of evaluation findings by program implementors to evaluate and modify their program. In this case, a planned workshop was extremely useful in allowing the organizations involved to take the evaluation findings and integrate them in the program redesign.

- Involving various, and often conflicting, actors in a common evaluation task allows for a dynamic exchange of views which requires skillful management and facilitation.

LOOKING FOR BENEFITS: BENEFIT-COST ANALYSIS OF FIVE MICROENTERPRISES

I. BACKGROUND

The five projects under examination in this case study were designed to assist producers at the lower end of the small-scale enterprise sector. Variously described as micro or informal enterprises, they provide some form of employment for a sizeable fraction of the non-farm labor force. Because of their large numbers, relatively modest incomes and the fact that they are far removed from the normal pathways of access to scarce developmental resources, producers in this sector are attractive targets for an equity-oriented aid strategy--if they can be reached.

Microenterprises are ubiquitous, found in towns and villages and operate in the areas of services, transportation, manufacture and distribution. Utilizing simple artisan technology and frequently operating in make-shift quarters, these enterprises are one-to-five person units which provide a wide array of goods and services to the bulk of the nation's households. Because these producers seldom have access to externally-supplied inputs of the production process--loan finance, imported capital and intermediate inputs, knowledge of improved techniques and managerial procedures--it would seem to follow that correcting these deficiencies would lead to an expansion of income and output.

A range of enterprises received assistance through the projects in this study. They were located in Upper Volta, Honduras, the Dominican Republic, Brazil and Peru. The average number of employees, including the owner, in the enterprises was between three and four; half of the units were one or two-person units. Of the employees, about 80 percent received a wage, with apprentices and family labor constituting the balance. Both as employees and owners, women made up about one-fifth of the population. Average investment ranged from less than $200 to over $7,000.

There was greater commonality with respect to the age of the entrepreneur and the level of monthly earnings. These units were not established by young men as a form of marginal employment while they searched for higher paying jobs in the formal sector. Rather they were permanent enterprises that yielded a substantial income to their owners.

In terms of industrial organization, most microenterprises entailed little specialization of labor or management organization and were based on existing technical knowledge, existing labor skills and use of existing raw

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This case study was extracted from the report, Searching for Benefits, by Peter Kilby and David D'Zmura (Wesleyan University), May, 1984, and from conversations with Judy Gilmore (AID/FVA/PPE).

materials and supplies. Production risks were few, barriers to entry were low and competition could be quite intense as departing apprentices and employees set up their own units in the same industry. These traditional microenterprise activities could be contrasted with non-traditional ("modern") small-scale industries which were typically characterized by a greater degree of technological specialization, a formal management organization and a larger scale of investment and employment (usually ten or more employees). For these non-traditional enterprises the knowledge, skill and inputs did not already exist in the needed form; and, therefore, the risks of failure were high. Because there were barriers to entry both with respect to capital and knowledge, the number of producers were fewer and intra-industry competition was light.

The economic roles played by these two subsectors were quite distinct. For a long time to come, the traditional subsector will provide more employment and income than the non-traditional subsector. Moreover, a larger share of the traditional sector's (including farmer's) output will be fulfilling "basic needs;" that is providing low-income consumer and producer goods for which there are no substitutes save at far higher prices. For its part, non-traditional enterprise from its small base will provide a much wider range of goods and will enjoy a faster growth rate. It will also be this subsector that ultimately furnishes the largest single source of indigenous entrepreneurs for large-scale industry, albeit the number of modern small firms that grow up and out of the small-scale sector will constitute a minute percentage of the total population of such firms.

A central characteristic of the microenterprise establishment, excluding only those in very large cities, was the fact that the unit represented only one of several commercial activities being pursued by the family household. The "family firm" might be engaged in farm cultivation, trading and an artisan craft. Labor and capital were shifted among the activities as family circumstances and comparative profitability altered over time.

The fact that capital and labor can be transferred between the diversified activities of the family firm explains the survivability of the microenterprise. Lending projects serving the traditional microenterprise sector enjoyed a high level of benefits relative to projects serving the "modern" subsector, a major reason why a comparatively small portion of firms failed. At the same time, this transferability was the source of considerable frustration to those who would aid the sector. In contrast to lending to non-traditional small industry in which the financial flow is specific to the enterprise and its disposition is fully traceable, microenterprise boundaries distinguishing between other family activities were undefined. In addition, the absence of written records provided a smoke-screen as to the actual use of the funds that only the most energetic creditor could penetrate.

The problems of carrying out ex post evaluation of aid programs to microenterprises are no less daunting. Often data regarding benefits to the family and economy outside of direct income to the enterprises is not even collected. This lack of recorded information and vaguely defined boundaries make data collection and analysis extremely difficult.

II. ROLE OF THIS EVALUATION IN THE PROJECTS AND SELECTION OF THE METHOD

The purpose of this exercise was to apply economic analysis to a sample of well-documented evaluation studies of PVO projects in order to draw whatever broad lessons a comparative perspective might reveal. The heart of the venture was the construction of benefit estimates for each of five projects mentioned above. For purposes of the comparative analysis, one of the projects chosen was not a PVO undertaking, but was a project implemented in a more typical fashion by the government-owned Industrial Bank of Peru.

For all those connected to development projects, benefit-cost analysis raises extreme anxiety. There are many reasons why this is so. Even under ideal circumstances, estimating benefits is necessarily arbitrary. While those who execute projects are nearly always over-optimistic about the good they do, outside evaluators working under severe time and data limitations usually omit certain classes of benefits that are indirect and hard to document. In the present case, not only are we relying on such outside evaluations, but we are applying a pioneering methodology which contains its own potential for error. Yet the calculation of a benefit-cost ratio creates the illusion of scientifically boiling down all the imponderables--economic benefits with long gestation periods, external spillovers (such as benefits to the consumer) at a second and third remove, equity considerations, the human process of participation, the creation of a sense of achievement and its attendant spur to social cohesion--into a single ponderable "bottom-line" figure. Whether this figure is greater or less than one (i.e., discounted benefits greater or less than discounted costs) can lead to the expansion or termination of a class of projects and can raise or lower the current status and future economic prospects of the executing PVO. So, although responsible assessment must go forward, the anxiety is not misplaced.

Acknowledging the extreme delicacy of this type of evaluation is not meant to imply that ex post benefit analysis is our most powerful analytic tool for understanding what works and what does not in the field of development aid. There are those of the "social empowerment" school who argue that benefit measurement omits extremely important social gains that are inherently unmeasureable, e.g. participation leads to improvement in the quality of poor peoples' lives. Proponents of this view are seldom able to establish unambiguously that the quality of life has improved independent of changes in income. One sees in these five cases and elsewhere that social mobilization can be sustained as long as it facilitates economic gain; where the new social activities do not yield material advantage, they soon dissipate. While in some cases economically successful projects may have socially disruptive spillovers which moderate the net benefit, the reverse is not true. Failing projects provide neither the incentive nor self-confidence to undertake new forms of social cooperation. They are simply one more failure. Lastly, with respect to the present case, since identical measuring techniques are applied across all projects the validity of the inferences drawn can only be overturned if the social effects are both strong and in opposite directions between countries.

III. MAJOR CHARACTERISTICS OF THE METHODOLOGY

One of the major characteristics of this evaluation methodology is that it requires a highly-trained economist to carry out the analysis. Without the availability of such a resource, the methodology is very difficult to implement.

In one way or another the usefulness of any development project comes down to a judgment about the benefits created relative to their cost. The economic costs of a project consist primarily of out-of-pocket expenditures and are usually easily recognized. Economic benefits are more difficult to discern, both because some of them are indirect and because they must be pruned of opportunity costs (probable income from the next-best employment alternative) to arrive at a net figure. Economic benefits measured most generally are all net additions to the national income.

Intermediate indices of project success--sometimes given prominence in impact evauations--include new employment, new firms, creation of additional productive capacity and expanded industry sales. In all cases, it is the additional income associated with the intermediate index which is the true benefit, e.g., employment without income is of little utility, larger firms or more investment are only desirable as they generate more income.

In the aid programs being considered, loan funds and technical assistance were provided to producers to enable them to increase their gross output. The effect on national income of this increase in their sales or gross output depends upon the opportunity cost of hired factors (mainly labor and imported inputs) and upon the degree of unutilized capacity in the firms which supply them and in the firms catering to consumer demand deriving from the income generated by the project.

The economist's definition of project success, that is, where the increment in income exceeds the resources expended to achieve it, can be contrasted with two more familiar notions of project success. The first is commercial success or sustainability: a project is successful if interest income from loans and charges for technical assistance fully covers the cost of funds and administration. The second notion locates success in the producers being assisted: if output, employment and profits in the client firms show substantial advancement relative to the size of the effort, the project is ajudged to have passed muster. The first notion of sustainability is of great importance--perhaps even a <u>sine qua non</u>--for maintaining administrative discipline and insuring institutional survival. The second notion focuses on the right variables, but it does not go far enough with respect to indirect benefits and subtracting output that might have been lost elsewhere. Success as measured by sustainability or output response in client firms may or may not coincide with economic success. Equally, non-sustainability or low direct output response does not necessarily imply economic failure.

It can now be stated concretely how benefits were measured. Defining value-added in any firm to be gross output <u>less</u> purchased inputs from other firms, it can be seen that the value-added within the individual firm was equal to

wages, rent, interest and profit. Thus, value-added was equal to the income of the four factors of production. The increase in value-added as a result of the project would overstate the benefit if the new employees left a previous job and were not replaced or were replaced by less productive workers. An appropriate subtraction was required for the lost output ("opportunity cost of labor").

Beyond direct value-added, there were two indirect benefits in the form of value-added generated in firms outside the project. First, the purchased input component of sales of client firms was a benefit to the extent that these materials were produced within the country and that they were new production rather than sales diverted from other customers. This is termed backward linkage. Second, a portion of the direct factor income will be spent on consumer goods and services, the producers of which had unutilized capacity. This was termed final demand linkage.

A simple example might be helpful to illustrate these three major elements of the aggregate benefit. Consider a single client firm, ie., a carpentry shop. Before the loan, monthly sales of this three-man firm were $150, of which $60 went to purchased inputs (lumber, nails, glue, etc.), $25 went as wages to a journeyman, with a residual $65 "profit". The latter is apportioned as follows: (a) an unknown amount in-kind to an apprentice, (b) an implicit wage to the entrepreneur, and (c) a return to his capital and risk-taking. As a result of the new orders financed by the loan, sales rise to $250 and a new apprentice is taken on. Of the incremental sales of $100, purchased inputs absorb $40.

Benefits are as follows. Incremental wages=0; incremental profits=$60; new employment=one apprentice; total direct value-added=$60. With respect to the backward linkage to firms outside the project that results from the $40 of new raw material purchases, we assume that 40% represents the opportunity cost of labor and foreign exchange content. Thus the net backward linkage is 60% of $40=$24. Regarding the final demand linkage to firms outside the project, we assume that the additional profit income will be spent and that one-third of it will go to domestic producers of consumer goods and services who have excess capacity. If we allow a 40% opportunity cost as before, the net final demand linkage is 20% of $60=$12. The aggregate of direct and indirect benefits now comes to $60 + $24 + $12 = $96.

A more precise means of estimating benefits is by an expansion method of calculating direct and indirect value-added, progressing from client new sales through successive rounds of effects on outside producers. The $100 of new sales financed by the loan in Round 1 gives rise to value-added in the client firm of $60 and then in subsequent rounds another $56.24 sales of which $33.75 is value-added. Although the expansion picks up higher-order income effects (i.e., the indirect income created by both the backward linkage and the final demand linkage giving rise to yet further income effects), the previous truncated method yielded a higher figure. The explanation is that in the expansion there is a 40% opportunity cost deducted from the backward linkage at every stage.

While there were other benefit components measured--training, price reduction, diversion benefits, weighted wages for the very poor--normally it was the increase in sales that was central in determining the level of aggregate benefits. Given the size of the opportunity costs we assumed, only in rare cases did the sum of direct and indirect value-added exceed the increment in sales.

Thus, the sales response of the client was the key element in estimating project benefits. This naturally lead to the question of causality. Is it legitimate to attribute an observed increase in sales over a two- or three-year period solely to the receipt of a loan? Taking the polar case, could it not be that the same increase in sales would have occurred without the loan? Some event or combination of events--a new road, rising consumer income, a reduction in supply (rise in price) of formal sector goods--raises the profitability of production, which induces the entrepreneur to cut back on family consumption (increased savings) or divert capital from another use in order to finance the expansion of output. One way to test this would be to use a control group, taking the differential increase (or decrease) in sales as being attributable to the loan. But does this do the trick? If capital was diverted from another use, that other (invisible) income was lost to the control group but not to the loan recipients. If it was financed by a sudden spurt in savings, the control group suffered a reduction in its real economic welfare. Equally, loan recipients may be diverting a portion of their loan to non-designated uses, perhaps uses with a higher value added pay-off, all of which goes unreported. For all of these reasons use of a conventional control group would underestimate the net benefit of loan finance.

The proportion of the sales increase which resulted from the receipt of the loan, as well as the extent of benefits from loan diversion, was a matter that had to be determined by a close reading of each case.

Another thorny issue was the opportunity cost of labor. It is common wisdom that there is substantial unemployment in both the village and the urban economy of high-birth-rate, poor countries: a new job in microenterprise reduces only the number of unemployed. It is the wisdom of economic theory that human ingenuity and competitive labor markets abhor unemployment: a new job in microenterprise reduces output elsewhere in the informal sector or the household economy. In the first case the opportunity cost of labor is zero, in the second it is somewhere near the going wage rate in the informal sector. A review of empirical studies supported two limited generalizations: (i) during the peak agricultural season the opportunity cost of labor is well reflected in the rural wage rate, and (ii) male heads of microenterprise typically have job opportunities elsewhere. For the rest, albeit each case will vary with local circumstances, the applicable mechanism is that of a "ladder of job step-up." This approach holds that the job vacated by the new microenterprise employee is taken over by someone previously engaged in a less productive activity, and so on down the ladder until the final person is vacating a state very close to pure unemployment.

IV. DATA REQUIREMENTS, COLLECTION AND ANALYSIS

The evaluation reports contained some statistics for all client enterprises and detailed data (including sales, purchased inputs, some measure of profits, wages and type of employees) from a roughly representative sample of the entire population. The basic technique for applying a uniform set of estimating principles to five unique situations, where not only opportunity costs and linkage coefficients may vary but where there are issues of data reliability--respondent ignorance, intentional misreporting, non-random samples, a range rather than a single reported figure--was to construct two polar benefit estimates, a minimum and a maximum.

In the minimum case, in the absence of information to the contrary, we applied the following conventions:

- The lower end of all range estimates is the actual figure.
- No firms or jobs are saved as a result of the loans and assistance.
- All labor is treated as having an opportunity cost equal to the wage rate.
- There are training benefits equal to half the journeyman wage rate for each apprentice.
- Net backward and final demand linkages are zero.
- Consumer benefits from price reductions or price increases prevented are zero.
- There are no benefits from loan diversion.

In the maximum benefit case we made the following set of assumptions in the absence of information to the contrary:

- The upper end of all range estimates is the actual figure.
- Firms and jobs saved are equal to the differential reduction of firms and jobs in the control sample.
- Only the entrepreneur is treated as having opportunity cost.
- There are training benefits equal to half the journeyman wage for each apprentice.
- A premium of 50% is added to the wage payments (including apprentice in-kind income calculated at half the wage rate) as a benefit of improved distribution of income.
- Net final demand linkages are equal to 20% of direct value added.

- Net backward linkages are equal to 70% of purchased inputs, exclusive of those purchases attributable to retail trading firms.

- Consumer benefits are equal to the initial quantity times the price reduction, plus the additional output times half the price reduction.

- There is a loan diversion benefit.

There were several conventions for handling missing information which were common to both the worst and the best cases. It was assumed that there are 300 working days in the year. One half of loans in default for 12 months or more were treated as unrecoverable, and hence were added to project costs. Lastly, the timing issue was treated uniformally. It was inferred from the evaluator's report that the average firm was in the program for 1.5 years and that there was new employment of 1,500 and an increase in annual profits of $500,000. It was not assumed that these magnitudes were reached on the first day of the program and hence, could be multiplied by the number of years in the program. Rather, the assumption was that they commenced at zero on the average borrower's first day and rose at a uniform rate attaining the reported magnitude on the day of the evaluation; hence we took the value at the mid-point of the time interval. Thus, in the example of the average firm, the project gave rise to (a) incremental person-years of employment of 1.5 average-years-in-program x 1,500 x .5 time adjustment = 1,125, and (b) incremental profits of 1.5 x $500,000 x .5 = $375,000.

Having constructed our minimum and maximum estimates, we proceeded to fix a most likely intermediate estimate for each benefit subcomponent. Here we brought into play everything we knew about the economy (e.g. unemployment levels, the ratio of intermediate good imports to GDP, movements in consumer income), all the internal evidence from the evaluation report and the personal opinions of those with direct knowledge of the project in order to make fine judgments about apportioning causality and about the size of the linkages. The sum of these subcomponents was the overall final benefit measure of the project.

V. EVALUATION OF THE METHOD

Looking from a distance at the benefit-cost estimates that come out of this process, what can be said about the likely bias of the results? On the negative side, there was clearly substantial uncertainty about the magnitude of displacement effects and resource opportunity costs. While it was believed that the conventions had been constructed very conservatively, it may not have been conservatively enough. Where it was an important component of the total, the benefits from loan diversion were arbitrary in the extreme. Also the cost figures were surely too low: early investigation and pre-planning costs of most projects were not reported, nor were ad hoc outside contributions received by the PVOs; shared overheads were often not fully taken into account.

Against these negative factors, there is a somewhat longer list of downward biases which tend to restore confidence in the calculations, or at least stop the tilt toward overly-favorable results. First, there was the almost universal intentional under-reporting of sales by tax-fearing entrepreneurs; in the one case where data were available to estimate this figure (Peru) it was 40%. Hence there was a systematic bias to under-estimate direct and indirect value-added. Again, all these countries have overvalued domestic currencies, and since the import-content of small scale enterprises' output was substantially less than that of the goods for which they substituted, the direct and indirect value-added, measured by "border prices," was understated. Third, most of these projects were only three-to-five years old, so that the high fixed costs of start-up and of learning from early mistakes tended to inflate the administrative expenditure per dollar lent relative to its long-term level. Fourth, the .5 time adjustment convention clearly understated the speed with which working capital loans take their effect. Finally, in the two cases where price reductions were important, the benefit figure was understated because it omitted the increases in efficiency that were forced upon non-assisted firms selling the same products and the consumer surplus enjoyed by their customers.

In sum, while benefit-cost estimates derived by the method presented were unavoidably subject to a considerable degree of uncertainty, there is as much reason to believe they are too low as to believe they are too high.

This method of evaluation demands a highly trained economist that can estimate and reconstruct data from previously completed evaluations in order to do the benefit-cost analysis.

VI. COST

The cost of the economic benefit-cost analysis of the already existing data from the five evaluations was $10,000, paid by AID. This does not include the cost of the original evaluation reports for the five projects used as the basis for the analysis.

APPENDIX A

GUIDELINES FOR CONTRIBUTORS TO THE PPC/E EVALUATION/MONITORING CASE HANDBOOK

These guidelines are intended to provide a common reference and format for developing your case study. The major areas requiring analysis in each study are:

1. Background
2. Role of evaluation/monitoring in the project
3. Selection of the evaluation/monitoring method
4. Major characteristics of the design
5. Data requirements
6. Data collection
7. Data analysis
8. Use of data manipulation tools
9. Reporting
10. Evaluation of the method
11. Costs
12. Key lessons learned from using the evaluation/monitoring method

If any of these categories are inappropriate or inapplicable in your evaluation/monitoring strategy, as may well be the case, please explain why. Except for the background section, in which all case studies should address all questions, the questions beneath each major heading are guiding questions. They are not meant to constrain, but to facilitate the provision of information.

The guidelines and guiding questions are framed in terms of "evaluation/monitoring" and "evaluation/monitoring techniques and methods." This is not meant to assume that monitoring and evaluation are either the same thing or that they have to be necessarily linked in any way. If the case you are writing deals only with evaluation or only with monitoring, please indicate that. If your case is reporting about **both** monitoring and evaluation, please indicate that as well. The framing of the questions in this manner is done in the interests of brevity and should be considered merely as a shorthand method of indicating our interest in both processes. Please use the guidelines to help write your case whether you are talking about evaluation, monitoring or both.

Please feel free to call Dr. Eugene Owen of the International Development Management Center at the University of Maryland at 301-454-7657 if you have any questions. Happy writing!

GUIDING QUESTIONS

1. BACKGROUND

- What was the title and number of the project or program where the evaluation/monitoring method was used?
- What were the dates of the project or program?
- Who were the contractors that developed and implemented the evaluation/monitoring method?
- What was the purpose of the project or program?
- What was the context of the project or program, i.e. what country or countries were involved, socio-economic context, etc.?
- What was the magnitude of the project, i.e. what was the funding level, what level of resources was involved, etc.?
- Who were the major actors in the project or program, i.e. what donor agencies, host governments, other organizations and agencies were involved?

2. ROLE OF EVALUATION/MONITORING IN THE PROJECT

- What was the role of evaluation/monitoring in the overall development and implementation of the project?
  - Was the evaluation/monitoring planned into the project from the beginning? If so, was it planned during the conceptualization or implementation phase of the project?
  - Was the evluation/monitoring planned as a continuous or periodic process?
  - Was the evaluation called for during, or at the end of the project, but not specified in the planning documents? If so, who called for it?
  - Was the role of evaluation/monitoring conceptualized in some other way?
- Was there a difference between evaluation and monitoring?
  - If so, what were the terms of reference for each?
  - If not, what were the terms of reference for the one being discussed in this case?
  - Did these terms of reference change over time?

- Was there a critical event or were there critical events that triggered the evaluation/monitoring? If so, what were they?

- What was the purpose of the evaluation/monitoring?

- Whose purpose did the evaluation/monitoring serve?

3. SELECTION OF EVALUATION/MONITORING METHOD

- What were the reasons that the method chosen was used?

- What were the assumptions underlying the method selected about the nature of success of the project?

- Were there underlying hypotheses or assumptions about the project that guided the selection of the evaluation/monitoring technique?

- Were there operational considerations that led to the selection of this method?

- Were there some other considerations that led to the selection of this method?

4. MAJOR CHARACTERISTICS OF THE DESIGN

- What are the major characteristics of the research design used for evaluation/monitoring?

  - Were there any management questions requiring progress or impact information?
  - How did the design cope with the issue of baseline data?
  - If key indicators were used, what were they and how were they arrived at?
  - Were qualitative or quantitative analyses or a combination of both employed? What were the criteria for making the decision about what analysis to use?
  - Was a conceptual framework used as a basis for the evaluation/monitoring? If so, what kind of framework?
  - How soon after project start-up did the design get implemented?
  - How was the evaluation/monitoring effort funded and at what level?
  - How flexible was the design in responding to changing management needs for information?
  - Did the evaluation/monitoring method or approach change over time? If so, in what ways?

- Did the evaluation/monitoring technique used rely on an interactive process, a blueprint (rational model) approach, or a combination of the two?

5. DATA REQUIREMENTS

- Did the evaluation/monitoring technique used require organized data ?
  - If yes, how much data was needed?
  - How was that amount decided on?
- Were key indicators used? If yes, briefly describe.
- Were any attempts made to assess the validity or representativeness of the data? If so, how was this done?

6. DATA COLLECTION

- If the evaluation/monitoring technique that was used required data collection, how was this data collected?
- Were any research instruments (e.g. questionnaires, interview schedules, etc.) used? If yes, briefly describe.
- Who collected the data?
- How often and when was the data collected?
- How much supervision was necessary during the data collection phase?
- Was any special training necessary to do the data collection? If so, what kind and how was the training done?
- What kinds of technical and practical problems were encountered and how were they resolved?
- Was data collection either a formal or informal process or a combination of both?

7. DATA ANALYSIS

- If data was needed for the evaluation/monitoring technique, how was that data analyzed?
- Who analyzed the data? Donor, contractor, host country counterparts, others?
- Were data processing hardware and software used? In what stages of the analysis?
- Were any technical or practical problems encountered? If so, how were they resolved?

8. USE OF DATA MANIPULATION TOOLS

- Did you use microcomputers? If so, in what ways?
- Could you make use of standard statistical software for microcomputers or mainframes?
- What other existing data manipulation tools did you use, if any?

9. REPORTING

- Were any reports generated from the evaluation/monitoring process?
  - If reports were generated, what form did they take?
  - Who were the intended audiences?
  - How often were reports done and made available?
  - Were the reports "user friendly?"
  - What kinds of answers to management questions were provided?
- What kinds of information did the report or reports contain?
  - Did the report(s) focus on inputs, outputs and purpose? If so, what percentage of the report was devoted to each type of information?

10. EVALUATION OF THE METHOD

- What were the major benefits and positive attributes of the evaluation/monitoring method chosen?
- What were major issues, concerns or difficulties with the evaluation/monitoring method?
  - Were they resolved during the project? If so, how were they resolved?
  - How could the method be improved to make it easier to use or produce better results?
- How useful was the information obtained through the evaluation/monitoring method to the USAID Mission and to counterpart managers?
- Did the the key actors get answers to all their questions in a timely fashion? If not, why not?
- How good is the evaluation/monitoring method?
  - What are its strengths and weaknesses?

- Was it possible to avoid biases? If so, how, if not, why not?
- Were there trade-offs between timeliness, cost, relevance and representativeness of the information?
- How empirically rigorous was the method?

- Was there any indication that the evaluation/monitoring methodology was manipulated so that the results of the evaluation/monitoring would serve a particular point of view or purpose? If so, who's purpose?

11. COSTS

- How much did the evaluation/monitoring method cost in terms of money and time (person-days)?

  - How does this cost compare with other evaluation/monitoring techniques?

- How much of a financial, time and space burden did it put on the USAID Mission and the project?

- What were the skill requirements for those involved in the evaluation/monitoring?

- What were the time, logistical and financial costs to the counterpart organizations?

12. SUMMARY OF KEY LESSONS FROM USING THE EVALUATION/MONITORING METHOD

- What is it about this method that would make it appealing to others contemplating evaluation/monitoring?

- Were these guidelines helpful in developing your case study? If so, how? If not, why not?

- What other information, not covered by the above questions, would help us better understand the evaluation/monitoring method and highlight its innovative nature?