PD-AAR-409

CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) – PART I

Report Control Symbol (RCS)

1. PROJECT TITLE

Management Development for Productivity

2. PROJECT NUMBER

263-0090.1

3. MISSION/AID/W OFFICE

USAID/Cairo

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)

85-16

☒ REGULAR EVALUATION ☐ SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES

A. First PRO-AG or Equivalent FY____ B. Final Obligation Expected FY____ C. Final Input Delivery FY____

6. ESTIMATED PROJECT FUNDING

A. Total $ 8.5 m

B. U.S. $ _____

7. PERIOD COVERED BY EVALUATION

From (month/yr.) 8/80

To (month/yr.) 8/85

Date of Evaluation Review July 1985

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. USAID has decided not to finance the Phase II continuation/expansion of this activity. Contractor should begin demobilizing.	IS/IR	9/85

Doc.# 2137A:DPPE/PO:MShafik/ys

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

☐ Project Paper ☐ Implementation Plan e.g., CPI Network ☐ Other (Specify)

☐ Financial Plan ☐ PIO/T _____

☐ Logical Framework ☐ PIO/C ☐ Other (Specify)

☐ Project Agreement ☐ PIO/P _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. ☐ Continue Project Without Change

B. ☐ Change Project Design and/or ☐ Change Implementation Plan

C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Name and Titles)

RMitchell, IS/IR
RRousseau, IS/IR
DPressley, AD/IS
JConly, DPPE/PO

12. Mission/AID/W Office Director Approval

Signature

Typed Name Frank B. Kimball, DIR

Date 12 AUG 1985

AID 1330-19 (3-76)

Management Development for Productivity (263-0090.1) | USAID/Cairo

ROJECT DESCRIPTION

The project is designed to increase the productivity of individual industrial firms by introducing and improving management systems and practices.

AUTHORIZATION DATE AND U.S. LOP FUNDING AMOUNT	PES NUMBER	PES DATE	PES TYPE
8/80 $8.5 Million	85-16	July 1985	[x] Regular [ ] Other (Specify) [ ] Special [ ] Terminal

ABSTRACT PREPARED BY, DATE	ABSTRACT CLEARED BY, DATE
N. Shafik, DPPE/PO July 1985	R. Mitchell, IS/IR July 1985

This evaluation was part of a broader assessment of projects in industrial productivity improvement that included the Industrial Technology Application Program (263-0090.3), Vocational Training (263-0090.2), and the American University in Cairo's Industrial Management Program. The evaluation was conducted by a team of U.S. and Egyptian consultants over-a six week period to assess the future of the program.

The team addressed four major issues: (1) productivity returns and project continuation/expansion, (2) deficiencies in project design and/or contractor performance, (3) recommendations for improvement, and (4) coordination with other activities in order to enhance impact. While the team identified some deficiencies, they concluded that MDP should continue based on both the monetary returns it has generated and the improved management practices introduced in various industrial firms. MPD has worked with 31 companies; trained 845 managers; sponsored 17 workshops, 2 seminars and 25 case studies; and prepared audiovisual and reference materials. In addition, the report states that the next two years should serve a transitional period during which an Egyptian institution should be developed to supplement MDP. The project could also serve as a coordinating mechanism between other USAID projects and GOE services to industry.

The deficiencies in the project are a result of the need for support from the GOE and business community, internal management systems, the delineation of roles and responsibilities, and the development of detailed action plans. There are a number of areas, such as the base line survey, training programs, and internal cost accounting procedures, that need additional attention. The need for political support for the project should be addressed through the advisory committee and by MDP staff contact with Egyptian business and government leaders. The project should also develop a strategic focus by sector, problem area, or economic targets. The project has recently developed documentation and management control systems. These should be expanded and refined in the future. Several areas of implementation such as task force visits, training materials, and marketing need to be improved. They should be addressed in the contractor's work plan for phase II. In general, the team recommends that MDP concentrate on consolidating the organizational lessons learned thus far in the project life.

However, despite the recommendations of the evaluation team, USAID has decided not to finance phase II of the project. This decision is based, in part, on the GOE's request that MDP be replaced by seven separate sector-specific training centers.

Doc.# 2142A:DPPE/PO:NShafik/ys:07/14/85

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FINAL REPORT
MANAGEMENT DEVELOPMENT FOR PRODUCTIVITY
(MDP)

344
87

Coopers & Lybrand

June 1985

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I. INTRODUCTION

A. BACKGROUND

Management Development for Productivity (MDP) is one of three technical assistance and training projects included in USAID's Industrial Productivity Improvement Program (IPI, 263-0090).

MDP (263-0090.1) provides a linked series of diagnostic, training, and continuing consulting services to private and public sector industrial firms. The project has a dual focus on individual middle and higher-level managers and on the firm itself.

MDP seeks to increase the effectiveness of business organizations by:

- Improving management in selected public and private sector business organizations; and

- Increasing the supply of and demand for effective management development and organization development services in Egypt.

B. THE PROBLEM

MDP has been organized and has provided services to a number of Egyptian firms for the past two and one-half years. USAID now wishes to have the project evaluated to determine whether the project should be continued and/or expanded, what improvements in the project are necessary, and what steps are to be taken to relate this project to others to increase its effectiveness. As such, our approach was to focus primarily on issues which could help improve the project.

C. METHODOLOGY

The evaluation was conducted within a six-week timeframe beginning the latter part of January 1985. Information was obtained from both group and individual interviews, analyses of documents maintained by the project contractor, and a review of original assumptions and project design.

A combination of structured and unstructured interviews were conducted with over 60 people, including Egyptian middle and senior management, chairmen of public and private sector companies, academicians, Egyptian government leaders, foreign and expatriate consultants, and USAID/Cairo staff. In addition to these information sources, the evaluation was complemented by on-site factory visits.

These sources provided information on two levels: (1) the validity of project assumptions and design; and (2) the effectiveness of contractor performance in terms of meeting project design activities, improving the management development process in the Egyptian environment, and the success with which coordination with other USAID projects took place.

D. REPORT OUTLINE

The remainder of this report consists of three chapters. Chapter II provides an executive summary focused on the four management questions posed to Coopers & Lybrand; Chapter III is our analyses and recommendations concerning the five components of the MDP project; and Chapter IV addresses specific issues relevant to the future of MDP.

II. EXECUTIVE SUMMARY

Four management questions were posed in the scope of work for this evaluation and, therefore, act as the basis for an overview of our findings. The four questions are:

- Do the productivity returns realized to date from the investment in this project justify its continuation and/or expansion?

- Are there deficiencies in project design and/or the performance of contractors?

- If there are deficiencies, what can be done to improve the project?

- What can be done to relate this project to others in order to maximize its effects and the effects of other projects?

The questions were answered in as direct a manner as possible, but, in some cases, particularly the first question, a more thorough explanation was needed.

1. Do the productivity returns realized to date from the investment in this project justify its continuation and/or expansion?

The MDP project, as designed, was to have an impact on company operations by providing diagnostic, training, and consulting services. The impact was to be measured in two ways: in terms of economic performance (e.g., increased profits, market share) and in terms of management functions (e.g., strategic plans, management information systems). No relative weight was given to either of those two categories, so it can be assumed that either

type is acceptable as an outcome of an MDP intervention in a firm. What is significant for MDP is the process through which the outcome is achieved. The project called for the company to establish an action group which would be trained by MDP to actually solve a problem that the company was experiencing and have the capability to solve other future problems. We feel, however, that the question as it is stated ignores the importance of this problem solving process and in fact may lead the consultant to solve technical problems that will show high productivity to the detriment of developing management. Further, the question as stated makes two assumptions: (1) that the end result or benefit of each MDP intervention can be monetized; and (2) that if the benefits can be monetized, a specific number can summarize the success of the project.

We take exception to both those points. First of all, not all benefits can be monetized. Some benefits, as described in our report, had only indirect effect on the performance indicators of firms, but nonetheless they are considered good management practice and, in the long term, positively affect the firm's economic performance. Thus, when undue emphasis is placed on monetizing benefits, the contractor may begin to assist client companies to solve only problems to which have an immediate monetary benefit. For example, reducing inventory levels can have a direct quantifiable benefit, while the analysis of a firm's market may not in the near term. We trust, however, that if marketing is the real problem in that firm, then the contractor will choose to emphasize markets rather than inventory despite the absence of a quantified benefit in the short term.

Second, when undue emphasis is placed on calculating a return on investment (ROI) for the project based on a series of interventions which emphasize monetized benefits, one would draw the wrong conclusion about the success of the project. For example, if the monetized benefits for MDP interventions resulted in an ROI of 20% or 30%, but was the result solely of MDP consultants solving specific quantifiable problems for the client and in fact

did nothing to leave behind a problem solving capacity in that firm, we would have serious reservations about the success of the project.

In addition, a few companies may have extremely high ROIs, which may hide ineffective interventions in other companies. Therefore, ROI measurements to avoid skewing should be assessed independent of one another as opposed to aggregating and then averaging several firm ROIs.

It is our conclusion, therefore, that the evaluation of MDP should include monetized benefits but must not exclusively rely on them to draw conclusions about project effectiveness. It must also give equal weight to other benefits incorporated in improved management practices. Futhermore, evaluation of MDP success should assess the degree to which the project is successful in developing a core group of managers who are trained in problem identification/solution and who actively apply that learning to other problems in the firm.

In evaluating MDP in terms of answering the question of whether there have been benefits which justify its cost, we applied the approach outlined above. In doing so, we conclude that MDP should continue for a second phase.

Our recommendation is based on the following issues:

- <u>There is evidence that MDP has provided monetary benefits to some companies</u>. MDP should receive credit for achieving monetized benefits, especially when significant management problems also were resolved. In other cases, however, we were unable to make a determination of a specific return on investment because the benefits estimating methodology in some companies is not considered reasonable, causal relationships do not always exist between the MDP intervention and the claimed benefit, the degree of implementation of actions necessary to produce benefits is limited, and there is a lack of sufficient tracking devices to verify claimed benefits.

- There is evidence that MDP has contributed to installing good management practices in some firms and has been successful in some cases to establish problem-solving groups. Several companies reported the installation of management information systems, marketing plans, and the like and believed that the action groups were better able to resolve future problems.

  In addition, we believe that there are a number of benefits which, because of the rate of implementation, have not reached their full potential.

- There are other reasons why we believe MDP should continue. The next two years should be considered a transition period in which an Egyptian organizational form should be developed which can perform the functions now carried out by MDP. This may be a "Business Center" as proposed by several people or it may be a group of Egyptian consulting firms emerging from the current MDP staff. We make no prior judgements as to the organizational form it should take, but nonetheless we believe that MDP can fulfill an extremely important function by transferring its approach and materials. As such, MDP needs a period to refine what it has developed over the past few years. Stopping the project would only disrupt the transition and leave a void for the institutional development needs of the Egyptian industrial community.

  Another reason for our recommending continuation of the project is that MDP as currently structured has the potential to act as a link-pin between othe USAID projects and GOE services to industry. It can be an important mechanism through which USAID re-

sources can be focused to high priority areas of the industrial sector.

Yet, all of those reasons do not suggest that the project continue as is. We believe that the management of the project needs to be refined and that Phase II should not begin until a detailed work plan is provided by the contractor. No significant expansion should take place for at least a year, and efforts should be made to give Egyptians a greater leadership role. For example, we recommend that an Egyptian be appointed, after a transition period of 90 days, to be deputy project director reporting directly to Dr. Ready. Staff expansion should take place only after the contractor develops a suitable way of assessing project capacity to perform all functions of the project, not only service to client firms. The extension contract for MDF should only last for one year, from August 1985, and a second-year extension should be at the discretion of USAID and the Egyptian Advisory Committee.

2. Are there deficiencies in project design and/or the performance of the contractors?

There are deficiencies in both areas. From a design point of view, the approach to keep the project independent of a government agency did give the project some flexibility. However, the Advisory Committee, which was to function as a quasi-counterpart agency, did not fulfill its function effectively and, as a result, compounded problems related to implementation. It would appear that a more structured group would be effective, and, therefore, the composition of the advisory group for Phase II must be carefully determined. Alternatives such as chambers of commerce, banking associations, and the like may be viable alternatives.

The design also assumed that the GOE and the business community representatives support the project. For various reasons, this did not prove to be accurate. In fact, open opposition to

the project may be considered one contributing cause to the project's lack of progress in some areas.

In terms of implementation, the contractor has not met several targets. For example:

- The base line survey is not completed;
- Only minimal advanced training is provided to the action groups in each company;
- The development of training material is behind schedule;
- There is no internal cost accounting procedure upon which to base a cost recovery program;
- Only recently has documentation been developed to demonstrate project activities; and
- Limited information, such as pre/post testing, has been developed to use as a means of evaluating project effectiveness.

In our opinion, most of these targets indicate the need for stronger internal management systems, the delineation of roles and responsibility, and the development of detailed action plans.

3. <u>What can be done to improve the project</u>?

There are five broad areas which act as a framework for improving the MDP program:

- develop a support base for MDP
- develop a strategic focus
- stabilize the organization
- establish management controls
- improve implementation of several project activities

o Develop a support base for MDP

This has been the subject of discussion between our team and several groups, including MDP staff, USAID, and Egyptian business/government leaders. Without a direct GOE counterpart agency, MDP at present does not enjoy the business and political support necessary to survive in the short/medium term. There are several steps which we believe should be taken. Informally, the MDP Egyptian staff should re-exert its influence and gather political support for MDP from business and government leaders. The American leaders should be permitted to have direct access to GOE representatives without making contact through USAID, but they should do so only in the presence of the Egyptian subcontractors. On the formal side, the Advisory Committee should be reconstituted with members who have active interest in MDP success, and it should include the Minister of Management Development. The Committee should be responsible for approving an overall strategic focus for USAID projects and should be responsible for coordination of MDP with ITAP, VTP, IESC, the AUC program, and other USAID institutions. We envision that the function of MDP, as well as other projects, will become institutionalized in the Egyptian Industrial environment during the next two to three years, and we view the Advisory Committee as critical to the process. Therefore, the committee should select chairmen of companies to serve on an executive Committee for each of the projects. Composed of three to five leading industrialists (public and private), these people would ensure that their respective projects would remain on target, provide relevant services to companies, and help sell the project to other chairmen.

As a practical means to ensure cross-project coordination, we recommend that a full-time executive secretary function be to created as part of the overall ADCOM. This could be supported by funds from USAID Innovative Activities Proj-

ect or, if appropriate, the local banking community could financially support the position. This could act as the basis for developing an appropriate organizational form to ultimately absorb and deliver on a cost-recovery basis the various project functions. If the Advisory Committee cannot be formed and if no alternative support base is found, we recommend termination of this project.

- Develop a Strategic Focus

This can be done in several ways - sectorally (e.g., food processing); problem oriented (i.e., production, quality, etc.) or economically (foreign exchange earnings, employment generation). Whatever focus is chosen must provide some rationale as to the allocation of MDP resources. The project must still avoid assisting companies which have no economic rational to exist or those which are "losers" in terms of desire to participate in MDP (government directed). MDP is (can be) at the stage where it must choose how to spend its resources and be selective in its client base. It can do so only by developing a frame of reference within which selection criteria can be established.

- Stabilize the Organization

MDP has gone through an organizational learning process: developing a sense of what business it is in (and this needs further refinement); developing its products and services; and penetrating its markets. As such, it must spend a period of time in a stable mode - limited growth, operational refinement. Therefore, we recommend that MDP does not expand its organizational structure to establish offices in Alexandria. In order to keep some dynamic in its operation, it may wish to bring into the system some Alexandria clients, but it should do so only after careful assessment of its own capacity and staffing requirements. As part of this process, we recommend that MDP staff have a 3-4 day workshop to review

where it has been and where it is going as an organization. A review of Westinghouse's initial proposal (1981) and Phase II proposal (1984) would be useful workshop documents as well as this evaluation report.

- Establish Management Controls

Much of the documentation and some of the internal control systems appear to have been developed only recently. While we believe that some management problems may have been avoided if this had been done sooner in the project's life, we do recognize that the documents do exist and encourage their further use.

At this point in the project's life, we suggest that Westinghouse develop a detailed work plan for Phase II of the project - essentially a proposal on how it will manage the project for the next two years. Continuation of this project beyond August 1985 should be contingent upon the acceptability of that plan to USAID management. Part of the plan should include a section on project management and a description of how Westinghouse proposes to develop control systems, such as cost accounting procedures, marketing plans, staff development, and the like.

- Improve Implementation of Several Project Activities

Contained in the body of our report are several areas where improvements are needed, i.e., task force visits, training materials, marketing, and so forth. We would recommend that these areas be addressed in the suggested work plan. In some cases, we note that improvement has already been undertaken and recognize that the MDP staff is continuing that process.

4. <u>What can be done to relate this project to others in order to maximize its effects and the effects of other projects?</u>

It must be understood that MDP is not one independent approach to solving the problem of Egypt's industrial base. Productivity is a function of many variables, and it is unlikely that only one of those variables in itself can significantly affect productivity. In a general sense, USAID programs seem to recognize this issue. While MDP is focused on the management of firms, other projects are designed to provide finance, technology, technical training, and so forth. However, the concept is not carried out in practice. With few exceptions, these projects operate independently of each other and in a competitive mode, while attempting to serve a common constituency. Each of the projects could be enhanced by linking their services to one another while currently maintaining their independence of operation.

There are two essential elements to make this happen. First, there must be a common rationale for all the industrial sector projects. This may involve focusing all projects on a target based on criteria identified in 3 above. Second, once there is agreement on that issue, a relatively simple structure could be put into place which would encourage coordination across projects. This may simply involve an amendment to each contract stipulating the need to refer clients to other projects, or it may include a more formal arrangement in which an advisory committee common to all projects is developed. Attached to the advisory committee would be a full-time unit responsible for ensuring a focus of the projects' activities.

III. ANALYSES

In this chapter, we present our detailed analyses and recommendations which support our answers to the four management questions addressed in the previous section. It consists of an analysis of project inputs/outputs; an analysis of project implementation; and recommendations for improving various functions of the project.

A. A COMPARISON OF PROJECT DESIGN, THE CONTRACTOR'S PROPOSAL, SCOPE OF WORK AND PROJECT IMPLEMENTATION--INPUTS VS. OUTPUTS

This section describes the results of an evaluation of the contractor's performance in terms of the project inputs and resulting outputs. Our frame of reference was the original project design, the contractor's proposal, scope of work and implementation figures.

1. Design vs. Proposal vs. Scope of Work

As MDP evolved from a design to implementation, some changes in expected outcomes have occurred. To assess how much change has occurred and the significance of that deviation in terms of project success, our analysis focused on each of the stages from design to implementation.

A comparison between the original project design and the Westinghouse proposal indicates little variance. In our judgement, the proposal agreed with, supported and reinforced the MDP concept. The major strength of the proposal was the depth of Westinghouse's understanding of the problems at hand. In addition, they displayed knowledge of the realities of carrying out projects within the Egyptian environment and the resources that would be needed to successfully achieve the project's goals and purposes. The proposal emphasized that the contractor, as well as its subcontractors, would capitalize on their experience with projects of a similar nature and that they already had in their

possession (or readily available to them) information and training materials which could easily be adapted and applied to the particular needs of the project. For example, the proposal discusses at length the results of data collected using a survey on specific management problems in Egypt carried out by Westinghouse during 1980. In terms of training materials, the proposal stated that TEAM Misr had several business simulations or management games of which at least one was designed for middle and top managers in Egypt and translated into Arabic.

While the proposal was consistent with the design, the contract deviated slightly. A review of the contract and its attached statement of work indicates variances occurred in terms of the targets to be reached by the end of phase I of the project, while leaving the implementation of phase II for future negotiation. For example, some of the changes involved the number of companies expected to participate in the DTA cycles (later referred as PI or productivity improvement cycles). The project's original concept envisioned 40 to 60 companies participating in the two phases of the project. The proposal indicates that 60 companies could become participants in phase I alone while the contract sets the target at 40 companies in the first phase. Likewise, the number of managers to be trained was reduced to 300 from the 500 target that was contained in the proposal. Overall, we concluded that the proposal was consistent with the design of the project and that the scope of work deviated from design and proposal primarily in terms of target figures. Both the proposal and contract represented a strong base upon which to implement the project.

2. Assessment of Inputs vs. Outputs

As designed, much of the success of the project depended on the ability of the contractor to organize its operations and marshall its resources first, during a start-up phase and later throughout the duration of the project. This start-up phase was to last four months and its original intent was to:

- allow the contractor to adjust and refine its approach to the project;

- design several types of training materials and productivity measurement tools;

- provide the project with pertinent information on the target industries' (baseline survey);

- produce a staff development plan and proposed fee structure; and finally,

- allow the project to initiate a promotional effort.

After this start-up phase and throughout the project, there were other outputs to be produced such as case studies, business simulation games, training materials and, refinement or modification of previously developed materials.

The final outputs, the accomplishment of which would serve as a measure of success of the project, were the number of PI cycles completed, participant companies in one or more PI cycles, managers trained, task force visits carried out, training materials prepared, articles and other materials on productivity and management issues disseminated, and Egyptian staff and consultants with improved skills in training and consultancy. The timeliness and effectiveness of these accomplishments should lead to a successful end of project status.

A summary of accomplishments, in cumulative terms, obtained during several periods of the MDP project is presented on Table 1. The data contained in this table originates from the review of the MDP periodic progress reports. The explanation which follows is categorized as:

- services to client firms;
- task force visits to the U.S.;

- MDP project promotion;
- training materials; and
- staff development

a. Services to Client Firms

As originally conceptualized in the MDP project, the number of PI cycles carried out, the number of companies that eventually were to participate in the project and the number of target industries that would benefit were important performance indicators. In addition, related targets included the number of managers trained and mandays of training, the industry productivity seminars, target industry surveys and the base line survey on management attitudes.

- PI Cycles - Companies Interventions. To analyze the relative success of MDP in terms of PI cycles, it is first necessary to understand the definition of this term. The definition has changed as the project progressed, thus affecting the target numbers that were to be indicative of success.

  In its original concept and as reaffirmed in the proposal and the contract, the PI cycle (formerly DTA cycle) was defined as an activity where a group of companies of the same target industry were to participate together in three distinct cycle phases: productivity measurement or diagnostic, training and finally, application. The target number to be reached at the end of the third year from the initiation of the project was set at 18 to 20 cycles covering 40 companies. As the project progressed, the contractor reported that it had encountered difficulty in getting groups of companies to agree all at the same time to participate in a PI cycle and, even more difficult, to have all of them coming from the same target industry. In view of this, the definition of

	CONCEPTUALIZED PROJECT PAPER 1/	PROPOSED W/H PROPOSAL	AGREED CONTRACTS SCOPE OF WORK	OUTPUTS ACCOMPLISHMENTS AS OF END OF START-UP	AUG. 1983	AUG. 1984	NOV. 1984	FEB. 1985	TARGET TO BE ACCOMPLISHED BY AUG. 31, 1985
PI CYCLES	22-25	20	18-20	1 7/	10/	10/	10/	10/	10/
COMPANIES	40-60	60 2/	40	1	14 8/	26 14/ 15/	27 17/ 18/	31 19/ 20/	32 22/
TARGET INDUSTRIES	7	7	7	1	2	5 16/	5 16/	7	5
MANAGERS TRAINED	600	500	300	-	129	392	627	845	480
MANDAYS OF TRAINING	N/S	N/S	N/S	-	815	3000	3340	3832	4800
BASE LINE SURVEY	1	1	1	-	-	-	-	-	1
INDUSTRY SURVEYS	N/S	1 3/	1 3/	-	-	-	-	-	-
INDUSTRY PRODUCTIVITY SEMIN.	N/S	N/S	N/S	-	-	2	2	2	N/S
TASK FORCE VISITS	N/S	5	5	-	-	2	2	3	4
MANAGERS IN TASK FORCE	80	40	40	-	-	20	20	28	40
PROJECT PROMOTION	N/S	4/	6/	1 9/	1 9/	1 9/	2 9/	3 9/	N/S
Published Articles					2	3	4	5	21/
Radio Appearances					1	1	1	1	N/S
Brochures						3	3	3	N/S
Other					4 13/	4	4	4	N/S
PROD. MGMT. WORKSHOP MODULES	N/S	N/S	N/S	-	11 12/	13	18	17	12
CASE STUDIES	10-20	20	10-20 5/	-	13	15	28	25	20
BUSINESS SIMULATIONS	1	2	1	-	-	-	-	-	2
AUDIOVISUAL MATERIALS	N/S	N/S	N/S	-					N/S
Films					3	5	10	14	N/S
Slides					-	75	73	73	N/S
Transparencies					-	366	366	366	N/S
REFERENCE MATERIALS	N/S	N/S	N/S	-	138	473	573	674	N/S
Books					44	114	135	160	N/S
Studies & Articles					79	339	418	494	N/S
Other					15	20	20	20	N/S
PROFESSIONAL DEVEL. MDP STAFF	N/S	N/S	N/S	-	5 11/	8 11/	8 11/	8	8

N/S Not stated
Accomplishments are shown in cummulative numbers

PI cycle was changed to be synonymous with one participating company. Thus, the number of cycles was to be the same as that of the companies participating in all or most of the phases included in the PI cycle. One further refinement of this definition has now taken place where a PI cycle represents a company intervention to account for companies that have signed up twice to go through the three PI cycle phases. In addition, Westinghouse also changed the content of the original cycle, removing advanced training for the action groups. Thus, to assess the progress of the project, we observed both the number of company interventions and the actual number of different companies participating in the MDP project. While the contract with Westinghouse calls for 40 companies to participate in the MDP, the project measures and reports its progress in terms of company interventions of which it has targeted 32 by August 1985.

By the end of its first year, the project accounted for 14 of such interventions either in progress or that had been completed. During the second year, MDP initiated 12 additional interventions for a total of 26 in two years. By February 1985, or almost two and one-half years after the initiation of the project, MDP reported that it had 31 PI cycles of which 9 had been completed and 22 were in progress. However, the 31 cycles represented 28 companies. In order to meet the end of project status, MDP will have to complete the PI cycles now in progress and complete interventions in an additional 12 companies, an achievable goal.

- Target Industries. The project paper suggested seven (7) target industries. Emphasis was to be made on industries related to food processing, textiles and

construction materials. Others included banking, chemicals, metals and metal working and tourism. The Westinghouse proposal and the contract confirm the original suggestion. By February 1985, MDP was involved in 7 target industries according to the following breakdown:

Target Industry	No. of Companies	% of Total
Textiles	7	26
Food Processing	9	33
Metals	5	18
Chemicals	2	7
Building Materials	2	7
Tourism	1	7
Electrical	1	4
	27 1/	

In this respect, it can be said that the project was successful in reaching a variety of types of industries and in concentrating most of its activities within two out of the three industries to which the project concept had assigned a priority.

- Managers Trained. Originally, the project design had set a target of 700 managers to be trained during the two phases of the MDP project. The proposal set the target to be reached as 500 and the contract set it at 300 to be achieved during the first phase or a three-year period. By the end of the first year of activities MDP had trained 129 managers equivalent to 815 mandays of training. During the second year, the project had trained, as reported by MDP, an addi-

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1/ The 28th company is the pilot project in the telecommunications industry.

tional 263 managers, for a total of 392 managers trained equivalent to 3000 mandays of training until that point. Approximately two and one-half years after the project initiation, the number of managers trained reached 845 which was equivalent to 3832 mandays of training. Clearly, these figures have surpassed the target set in the contract and it would appear that, in this respect, the project has been successful. However, it should be noted that the actual length of time spent by each manager in the different training programs is substantially lower than the length anticipated in the design, proposal and contract. The information available did not allow us to ascertain the average length of a training program, but on the basis of the above cited figures, we can see that the average number of mandays per trainee has been 4.5. Only limited advanced training was provided.

- Baseline Survey -- Industry Studies. The project concept called for a baseline survey of management practices and attitudes and for general studies on target industries. The proposal and contract reiterate these tasks. Although these tasks were programmed for implementation at an early stage of the project, in practice this has met with considerable difficulties. The design of the baseline survey was completed 6 months after the project's initiation, exceeding the elapsed time when the survey would have been most useful. Once the design had been completed, it took the government approximately 11 months to revise and approve it and, in the process, it imposed significant modifications and constraints, such as reduction in the sample size and in the types of companies that could participate in the survey. The actual survey process was undertaken

by TEAM Misr under the responsibility of Westinghouse and began in the second quarter of 1984. To date, the survey has only partially been carried out and a preliminary report on findings was delivered to Westinghouse and USAID in January 1985. Furthermore, it has been noted that the survey deviated considerably from the design in the way the data should have been obtained and in its completeness, posing questions on the results that can be obtained.

With regard to the general studies on target industries Westinghouse stated that they accomplished the following:

- Plant tours in target industries
- Review of various reports
- Meetings with MOI experts
- Commissoned textile industry studies.

- Industry Productivity Seminars. The project design and the contract indicate that the contractor should carry out industry productivity seminars for each one of the target industries, with the first starting prior to the initiation of the initial PI cycle. These seminars were to have a dual purpose: first, to discuss topics related to productivity issues pertinent to the target industry, and second, to promote the MDP concept and project in order to get firms interested in participating in the PI cycles. By the end of the first year of the project, no seminar of this type had been conducted. By the end of the second year, two seminars had been offered, one on the textile industry conducted in December 1983 and another on the food processing industry carried out in April 1984. Since then and until the

time of this evaluation (March 1985), no other industry specific seminar has been offered.

b. Task Force Visits to the U.S.

The project concept did not specify the number of task force visits to the U.S. during the life of the project. However, it does indicate that during both phases of the project, 80 Egyptian managers were to have participated in these task forces upon completion of the PI cycle by their companies. The Westinghouse proposal indicates that, in Phase I of the MDP project, 5 task force visits to the U.S. were to take place with at least 40 managers participating in them. This same target is reflected in the contract. The target number was later changed by MDP to include only 4 task force visits though the target number of managers remained at 40.

At the end of the project's first year, no task force visits had taken place, although, according to the proposal, at least one should had occurred. At the close of the second year, two of these visits had been carried out. The first visit, in April-May 1984, involved 9 managers from the textile industry and the second visit, in July-August of the same year, included 11 managers from food processing industries. A third one for 8 managers from the metals industry was taking place at the time of this evaluation. Thus, until now, there were a total of 3 task force visits involving 28 managers. A fourth visit is being planned for June 1985.

c. Project Promotion

The project design called for a series of marketing and promotion activities due to take place throughout the life of the project. However, it left flexibility in terms of specific actions or outputs. The Westinghouse proposal indicates that their promotion activities would result in at least 20 articles or media presentations being carried out each year and that, in addition to the industry productivity seminars for target indus-

tries discussed previously, other top management seminars would be conducted. The proposal also indicated that symposium presentations to the academic community would be conducted semi-annually. Finally, the contract indicates that the promotion activities were to result each year in 10-12 management, MDP or related articles, or features on other media, that an unspecified number of mini-seminars and guest lectures should be conducted and that a systematic sharing and testing of the material developed with the academic community should take place.

One of the important activities that MDP carried out so far was the productivity seminars for industry managers. The first activity of this kind took place in December 1983 with a seminar on productivity issues offered to an audience composed of chairmen and top managers of several industries as well as government officials. Two other seminars, one in September and the other in December 1984, have occurred since. Both of these were in Alexandria and were presented to a general audience of chairmen and top managers of local companies.

The MDP project has also produced a number of productivity and project-related articles. It is difficult to assess the quantity or the frequency of these publications with the exception of a quarterly newsletter that has become one of the main promotional efforts of the project, of which to date 5 issues had been published and distributed to a wide audience. In addition, several brochures on MDP services have been printed and distributed, two radio and one T.V. appearance were conducted, several receptions were offered and newspaper advertisements published.

Finally, formal contacts were made early in the project with the academic community, and on an individual basis, several university faculty members have participated in the project either as trainers or consultants.

d. Training Materials

The production of training materials during the life of the project was to become an important output and at the same time,

play a key role in the upgrading of the managerial skills of those individuals participating in the PI cycles. Preparation of these materials was to include productivity management workshop modules and case studies, business simulations and audio visual materials. In addition, reference materials on productivity issues were to be identified and put to the disposal of the project. The sharing of materials produced with the universities has not occurred because, two and one-half years into the project, MDP feels that their training material is still undergoing modification or refinement. In terms of target numbers, the project is meeting its objectives. In terms of dissemination, it is not.

- Workshop modules and case studies. The project concept, proposal and contract make no specific mention of numerical targets for productivity management workshop modules. However, it is implicit that they will be part of the training materials to be produced throughout the project. On the other hand, the number of case studies was stated as 10-20 during both MDP phases in the original design, 20 case studies in the proposal and finally, in the contract, the target is set at 10-20 cases which were to have been tested and refined through application with the client companies.

  At the end of the first year, the MDP staff had prepared 11 workshop modules and developed 13 case studies for use in the PI cycles. During the second year, only two of each type of training materials were added to the inventory, but several of those that had been produced in the previous year underwent extensive modification or refinement. By February 1985, the MDP project had prepared 17 workshop modules and 26 case studies, both of which had been and were being used with companies participating in the PI cycles. Thus, in terms of numbers, the MDP

has already surpassed the targets. However, most of the case studies are still in English and therefore need to be translated into Arabic.

- Business Simulations. Business simulation games were viewed as an important tool to upgrade managers' skills. In addition, the development of such games based on Egyptian experiences was considered as one of the important contributions that the MDP project would make to the academic and consulting communities.

  The original design of the project calls for the development of one computer-based simulation game. It also suggests that a game designed for enterprises in socialist countries (at the time in use in Hungary and Poland) could have been adapted to serve the Egyptian needs. The Westinghouse proposal addressed this by proposing the development of 2 business games for public and private sectors. Finally, the contract sets the target at one business simulation to be developed.

  In actual practice, the development of this business game has been delayed. Although in their proposal, the contractor stated that several games were in possession of TEAM Misr, so far the project has been unable to identify a suitable game for adaptation much less to develop a new one. Thus far, the activities in this task have been limited to searching for appropriate games in the United States. In the second half of 1984, the MDP project proposed the development of 2 Egyptian-based simulation games. This activity was started in October 1984 and according to the progress reports, detailed plans for their development were produced by November. However, on the recommendation of USAID, further development of

the games has been postponed until phase II of the project.

- o Audiovisual Materials. The MDP project has acquired or developed several audiovisual materials that are presently being used in the training activities. At the present time, MDP has 10 video films produced by the project, 4 training films, 73 slides and 366 transparencies, most of them in Arabic.

- o Reference Materials. Throughout the project, MDP has acquired a sizeable amount of reference materials on productivity topics. By February 1985, the collection of reference materials consisted of 160 books, 194 studies and articles on productivity and 20 miscellaneous articles.

e. Professional Development

Another important objective in the MDP project was to provide its Egyptian staff with opportunities to increase their professional skills. The project design made specific reference about this and suggested that a professional development plan be established during the start-up phase of the project and that activities in this regard commence early in the project. The Westinghouse proposal addresses this aspect by proposing to carry out a professional development plan tailored for the individual needs of all its Egyptian professional staff consisting of training visits to the U.S. and a series of in-house training seminars.

Between May and November 1983, all the senior professional staff had been through a productivity training program in the U.S. especially designed for each participant. In addition, some of the senior and junior staff were given the opportunity to participate in the task force visits to the U.S. At the same time, and throughout the period under consideration, there have been a number of in-house seminars on various productivity

related subjects offered to all of the project staff. It is anticipated that these in-house seminars will continue to be offered during the remainder of the project.

3. Summary Evaluation of Project Inputs/Outputs

The analysis of the project's accomplishments based on the periodic progress reports and summarized on Table 1 reveals that the project has had a mixed performance in terms of the pace at which targets were and are being achieved. On the negative side, most of the actions programmed started later than anticipated and their progress, in terms of tangible outputs obtained, were behind schedule. For example, while at the end of the start-up phase the project was successful in conducting one top management seminar for a general audience, it fell substantially behind in the production of several other outputs such as training materials, case studies, business simulations, industry surveys and industry specific seminars. Likewise, during the remainder of phase I, most of the programmed actions were started later than anticipated and their progress, in terms of tangible outputs, was slow. There are no business simulation games available and only the preliminary results of the base line survey were delivered in January 1985.

Further review of Table 1 indicates that the rate at which outputs were achieved during the period under evaluation was slow until the second year. This suggests that the learning period which the MDP staff had to go through was substantially longer than anticipated. Acquiring experience and surmounting internal and external problems was a difficult process for the contractor and had a negative impact in the production of outputs. The realization of these factors resulted in MDP staff setting new targets to be accomplished by the end of phase I (August 1985). These targets were considered more realistic, considering the internal and external circumstances.

On the positive side, a review of the actions taken in the last 12 months indicates that many of the initial difficulties

may have been surmounted. As the project itself acquired momentum, became more involved with companies and the MDP staff gained more experience and confidence, the ability to initiate actions and, therefore to deliver expected outputs, has been enhanced. To date, the project appears to be on its way to reach, and in some cases surpass, the new targets.

Our overall assessment of the contractor's management of the input/output part of this project leads us to the following conclusions:

- <u>The Project experienced significant management problems during the start up phase.</u>

  Westinghouse had developed an excellent proposal to carry out this project but did not develop strong project management techniques to effectively carry out what it proposed. The absence of detailed work plans based on its proposal, a high level of conflict between certain staff, conflict with its one subcontractor and an apparent lack of shared understanding of the project design by the MDP staff led to delays in certain project deliverables. For this, the contractor must assume responsibility for delays and for lack of implementation.

  Beyond the contractor's control, external circumstances also caused project management deficiencies. For example, the Advisory Committee failed to provide a concrete base of company clients and also engaged in political infighting for control of the project. In addition, they provided no realistic political support base upon which the contractor could have built a supportive constituency and they failed to provide a strategic focus for project activities.

  USAID management was correct to have the contractor focus on quantification of success but may have overstated its case to the exclusion of other benefits equally important. The external pressures on the contractor

coupled with a weak internal management system compounded the problem.

- <u>These management problems still exist to some degree but corrective actions have been taken.</u>

  There still is no strategic focus for this project or concerted efforts to link the project to other projects. The Advisory Committee does not function and the contractor has chosen to create its own approach to project implementation. Internal management systems are still deficient yet recently enacted programs (e.g., documentary system, the PI cycle handbook) will help project effectiveness.

- <u>Despite internal management problems, the project has achieved many of the expected and some unanticipated outcomes</u>.

  Some of these unanticipated outcomes include the initiation and development of the President's Forum, the Productivity Management Forums for U.S. Task Force participants the use of research assistants and the like. The expected outcomes include useful diagnostic instruments, training materials, the establishment of problem solving groups within some companies, and in many cases, the resolution of significant management problems.

B. PROJECT IMPLEMENTATION--ANALYSES AND RECOMMENDATIONS

In the following section, we review and analyze MDP as it was implemented and offer recommendations of how the project staff can improve portions of its operations. The analyses deal with five areas of the project:

1. Service to Client Firms
2. Task Force Visits to the U.S.
3. Promotion

4. Development of Training Materials
5. Staff Development

1. Service to Client Firms

Phase I - Diagnostic

According to the project design, the diagnostic phase of the productivity improvement cycle (Phase I) was to meet the following objectives:

- o Involve all management levels;
- o Identify organizational problems through information gathering (interviews, documents review, surveys);
- o Discuss results of organizational analysis with top management;
- o Select key managers to participate in the productivity improvement (P.I.) cycle; and
- o Identify/quantify expected results, and subsequently inform top management of these results.

The time frame for the diagnostic report was to be one week with two CSMs allocated to the task. In reviewing this process, the following was observed:

- o The Contractor satisfied the design objectives of Phase I but not within the established time frame.

  Although the contractors identified company problems effectively and in accordance with design, severe problems occurred in completing Phase I on time. The diagnostic phase has often taken up to 30 weeks (elapsed time) to complete.

There are several reasons for this, many of which are beyond the control of the project implementors but others of which can be altered slightly to improve MDP efficieny and, ultimately, to better meet client needs. For example, the contractor has faced the following constraints:

- o Delays caused by public sector chairmen for the following reasons:

  - Rotation of chairmen resulting in new problem orientation and/or negotiations;

  - Difficulty in getting chairmen to release information to consultants;

  - Lack of commitment to the MDP concept;

  - Lack of top management motivation;

  - Indecision implicit in bureaucracies; and

  - The belief that MDP services should be free because it is an AID project or because chairmen awaited payment by the ministry.

- o Delays caused by logistics and data: In addition to difficulties with public sector chairmen, the contractor faced logistical problems in making plant tours and appointments with top management, as well as sizable constraints in collecting useful and reliable data. On the one hand, the efficiency and effectiveness of collecting information in Egypt is both a function of quality and availability of information. For example, the reliability of published financial data is questionable. These realities suggest that fostering personal relationships built upon mutual trust becomes critical: in essence, a time

intensive procedure. Thus, some delays are justified. Delays also occurred in private sector companies, although these delays were not as extensive. In a few cases, in private sector companies, diagnosis was completed within two weeks.

- Organizational problems were assessed by means of diagnostic tools and top management workshops.

We also analyzed both the number and adequacy of tools used during the diagnostic phase against the purpose of the diagnostic phase (to identify organizational problems), the means of identification (group decision-making), and the source of problem identification (in most instances, the managers). Our analysis has resulted in several findings: The contractor used various diagnostic instruments in the early stages of the MDP program. These instruments were borrowed from the U.S., which operates under an advanced system of auditing, financial analysis, sensitivity evaluation and organizational assessments. Attempting to use all of these tools, particularly in the early stages of diagnosis, was cumbersome and, at times, inappropriate in the Egyptian environment. For example, attempts to gather, and often derive the data, resulted in delays and frustrations on the part of CSMs and companies. Moreover, some productivity indicators measured only aggregate company-level activity; there continues to be a relative lack of standards from which to measure productivity, and the volume of historical data often does not facilitate trend analysis in order to assess the significance of a problem.

This does not imply that more in-depth analysis will not be required at a later time in the cycle. For example, discrepancies between CSM and company management may arise during early diagnosis which require further diagnosis. It suggests that the most effective approach to diagnosing

management problems must be determined on a company-by-company basis.

In approximately 40% of the cases, problem(s) were identified during this information-gathering stage. In cases where this was not done, the problem(s) were identified during top and middle management workshops through group decision-making forums. During these workshops, problem(s) were put in priority by means of a productivity improvement opportunity ranking system. These workshops were effective in four respects. First, the method of diagnosis assisted in opening intracompany communication channels; second, it emphasized group decision-making from a practical perspective; third, it apprised managers of various problems throughout the company, often for the first time; and fourth, except in rare cases, the diagnosis was confirmed by the CSM, which served to build client rapport.

Subsequently, following problem identification, action group members expected to participate in the P.I. cycle were chosen, and the chairman was notified of the problem(s) to be solved. In some cases, the diagnosis confirmed what the chairman had determined the problem to be.

<u>The process which is now somewhat effective could be improved.</u>

An objective of MDP is to arrive at a good understanding of company problems and to determine how solutions to problems can be integrated into management development, wherein decision-making linkages are created. Although we feel that the implementors have been effective in the diagnostic stage and have, in fact, improved the quality of instruments used, the following recommendations should result in greater time efficiency:

- Decrease the number of diagnostic tools used in early diagnosis. For example, prior to holding top management interviews (but after plant tours and introduc-

tory meetings with top management) employ three instruments: a corporate strategy session, the Dupont model, and the client company data feedback instrument. A corporate strategy session will help determine the importance of problems identified relative to future goals and objectives of the company. It may also be useful to involve IESC and ITAP personnel in these sessions, particularly when technology is a critical aspect of corporate strategy. The Dupont model will provide sensitivity analysis from a financial perspective, and it serves as a base in which to analyse more subjective data. The feedback instrument, which was designed by one of the Egyptian consultants, is drawn from descriptive and productivity data. It is used to analyse productivity and financial information.

It also assesses marketing characteristics from a company and competitive standpoint. Further, it prevents the implementor from relying too much on productivity improvement indicators to the exclusion of gaining an overall assessment of the company.

- Use the preliminary diagnosis as a tool to build trust with senior management before conducting in-depth analysis which means that no fees should be charged during this time frame;

- Top management presentations should then be made with the following objectives in mind:

  - identification of findings that gain the consensus of top management;

  - determination/explanation of further data needed in conformity with problem(s) identified;

- description of the feedback that management can expect following further analysis; and

- assessment of how problem analysis might foster management development.

o Following further analysis wherein additional diagnostic tools are used, a presentation should be made citing specific interventions and modules to be employed during training. (Again the ITAP personnel could be useful in doing a manufacturing diagnostic.)

o Submit an estimated work plan for management which will assist the contractors, as well as the company, in time allocation.

This diagnostic restructuring could result in a more efficient use of time. Notwithstanding this, the diagnostic cycle should be extended to two months, given logistical constraints. These recommendations and conclusions should result in the following overriding benefits:

o The CSM begins to build trust early in the P.I. cycle;

o From inception, management is made aware of the integral role it has played in problem identification, and that it is the manager, not the CSM, who is helping the company;

o Management is also made aware of the importance of developing communication channels, which improves the management development process;

- The diagnosis becomes a learning process for management involved;

- The client will know that specific service will be offered; and

- The analysis and presentations will demonstrate value that the client will receive for his money.

These activities then become the basis for training the action group.

Phase II - Training

This section is analyzed in four sections as follows:

a. The scope of training activities;

b. A comparison of implementation with project design in terms of the following variables:

   - content
   - method
   - training aids
   - sequencing
   - trainers

c. An analysis of the significance of differences in training interventions between companies; and

d. An assessment of impact in terms of:

   - managers trained
   - client satisfaction
   - evaluation of training materials.

e. Recommendations

a. Scope of Training

Management training in the PI cycle is not confined to the training phase (Phase II). It also takes place in the diagnostic and application phases and, therefore, includes the top and middle management workshops and any specialized training, either formal or on-the-job, which is given during the application phase. For this reason, the diagnosis, training, and application phases cannot be regarded as mutually exclusive components of the PI cycle. Accordingly, our approach in this section is to examine all forms of training for client companies wherever they take place in the service delivery.

b. Comparison of Implementation with Design

In general, the training which has been implemented for client companies differs in many respects from that envisaged in the project design and described in the training phase of the client service delivery. In this section, we assess the significance of the divergences from project design in terms of a number of different variables.

Content

The project design envisaged classroom training of approximately 6 weeks divided into two segments covering both general and specific management skills. However, the implementation of training in client companies has focused upon the general management skills which are developed during:

- top and middle management workshops;
- problem-solving workshops; and
- action planning.

All client companies have undergone the above types of training, although in some cases the top and middle management workships have been combined into one. (See below.) The top and middle management workshops develop communication skills, and the problem analysis and action planning sessions enhance analytic, planning, and decision-making capabilities among management.

We have analyzed the activities carried out during the training phase for 16 client companies who are the most advanced in progress through the PI cycle. Of the 14 which have reached the stage at which specialized management training is carried out, 10 have undergone such training. This training has not been broad in scope and typically involves one or two topics directly related to the focus problem. However, the duration of this training is short, lasting only a few days, and therefore does not correspond to the advanced training envisaged in the project design.

There is a difference of opinion among MDP staff as to which type of management training is more effective--the general or the specific. Summarizing these views, one may conclude that the general skills training is at least equally if not more useful than the specific skills training for Egyptian industrial management. Therefore, it would appear that the emphasis in company training on the general skills is well placed. We believe, however, that it is difficult to draw a firm conclusion on the relevance of training in the absence of any assessment of management capabilities in client companies at an early stage in client service delivery prior to the design of the training programs.

It is clear that the intensity of formal training has diverged significantly from the 6 weeks classroom training envisaged in the project design. The 4 workshops conducted by MDP are each typically 3 days in duration, and only a small number will attend as many as 3 of the workshops. The norm would be attendance at one or two. Formal specialized training is frequently of an even shorter duration. It may be objected that

ANALYSIS OF TRAINING FOR 16 CLIENT COMPANIES

Company Code	NO. OF DAYS: Top Manag. workshop	NO. OF DAYS: Middle Manag. workshop	NUMBER OF PARTICIPANTS: Problem Analysis workshop	NUMBER OF PARTICIPANTS: Action Planning workshop	NUMBER OF PARTICIPANTS: Specialised training	NUMBER OF PARTICIPANTS: Specialised training	Elapsed time for training phase (weeks)
F3G	4	4	13	10	48	D,E,F	10
F3G	4	4	6	6	3	D,E	11
Pilot	4	4	15	15	5	A,B,C,G	24
T4G	3	3	10	10	10	F	44[1]
M3G	----------3----------		-	-	-	-	N/A
F1G	2	4	N/A	N/A	25	D	32[1]
T7G	4	4	6	6	N/A	N/A	15
T5G	3	3	8	8	10	D	25
F6G	4	3	7	7	7	A,G	22
T2G	4	1	7	N/A	N/A	N/A	37
F2G	4	4	6	2	N/A	N/A	22[1]
T1G	4	3	7	N/A	N/A	C,J	16[1]
B1G	N/A	N/A	N/A	4	-	-	N/A
M4P	1	3	N/A	N/A	N/A	N/A	23[2]
F5P	3	3	5	N/A	7	C,H,K,L	13[1]
T3P	4	3	5	N/A	140		

Notes: 1 Figure differs from elapsed time indicated on file. 2. I & II were combined

Source CSM interviews ---- indicates that workshops were combined N?A: means either that client has not reached the relevant stage in the PI cycle or that training content was covered outside formal workshops.

Coding for Specialised Training

A: Flow-charting
B: Quality control
C: Inventory Control
D: Maintenance Management
E: Management Information Systems
F: Marketing
G: Work Measurement Sampling
H: Production Planning
J: Incentive Systems
K: Budgetary and Finance
L: Strategic Planning

the deficiency is made up by action group members' collection of data which is ongoing throughout Phase II, which will last on an average of 20 weeks or more. However, such data collection is usually a discontinuous activity and, in our view, constitutes consulting assistance rather than on-the-job training.

The relative absence of intensive formal training represents a weakness in project implementation in view of the comments made to us in interviews regarding the insufficient time taken for training. (See below.) One should be careful, however, not to make this judgment out of context. MDP has frequently experienced serious difficulties in assembling managers for formal training in view of their job commitments and, therefore, workshops of longer duration may not have been feasible.

The project design did not specify alternative methods of training other than participative and classroom training. MDP's client service managers have endeavored, in practice, to move away from formal classroom training towards more participative/democratic methods, although lecturing has still proved necessary to bring managers to a level where they are capable of contributing to an open discussion. Workshops, where everyone is expected to participate, have proved more acceptable to MDP consultants/trainers than formal lecturing. At a more detailed level, all client service managers have used "voting" techniques to allow the participants to influence the outcome of a workshop. It is our understanding that this participative approach to management is appropriate for Egyptian management training and is, moreover, culturally acceptable. Therefore, in our view, the MDP approach to training, as implemented, has been correct and consistent with original project design.

Teaching Aids

The use of case studies, business simulations, and simultaneous translation facilities were mentioned in the project paper as aids for trainers. We have been unable to assess, however,

how comprehensive case studies are used, although we know that they are used in the President's Forum. We understand that business simulations are not used as MDP has not developed, as required, a suitable business game. Translation facilities were used with mixed results and therefore currently the vast majority of training is conducted in Arabic by Egyptian staff. However, we do suggest that, when conferences or workshops are held to discuss MDP, simultaneous translation be used particularly if Westinghouse remains the prime contractor. In general, therefore, the use of teaching aids has not conformed with the project design, although we do not believe that this has significantly impaired the effectiveness of training.

Sequencing

The sequencing of training was not raised as an issue in the project design. However, we believe that it is important to examine the sequencing of training as this will affect its overall effectiveness. Training in client companies has proceeded almost without exception in the following order: firstly, top management workshop; secondly, middle management workshop; thirdly, action planning (workshop); finally, specialized training.

We believe that this ordering of training--communication skills, problem analysis skills, planning and decision-making skills, specialized training--is basically sound for client companies, although basic specialized training given earlier would strengthen the "integration" skills training. (See below.)

Trainers

Training is generally conducted by Egyptian staff, who are usually the client service managers. American staff, however, occasionally conduct specialized training in their fields of expertise. Frequently, special Egyptian resources are requested

to carry out specialized training which normally occurs during Phase III of the PI cycle. We have, in select cases, observed MDP training methods in action and were impressed by the presentation skills of Egyptian MDP trainers and their ability to generate participation among "trainees." We believe that these strengths are likely to offset some of the weaknesses of the training modules as "trainee" material. (See below.)

c. Differences in Training Intervention between Companies

This subsection is discussed under the following headings:

- o problem analysis;
- o action planning;
- o data collection;
- o elapsed time and man-days; and
- o specialized training.

The discussion draws upon data from the Table below, "Analysis of Training for 16 Client Companies," which covers companies most advanced in the PI cycle.

Problem Analysis

Of the 16 companies which have reached the problem analysis stage, 13 have held a formal problem analysis workshop. The duration of these workshops has varied from one to four days, with three days being the norm. Typically, the number of company participants has ranged from 5 to 10, although in one public sector company, 15 managers attended. The participants invariably correspond to the members of the action group yet other managers have also attended.

At the beginning of client service delivery, MDP did not have a suitable problem analysis module, and this was extensively revised on the basis of experience gained from one early textile

sector client. Our assessment of problem analysis conducted in a number of client companies is that, for the first set of clients, the approach was insufficiently rigorous. Since the development of the new problem analysis module, however, the conduct of the workshop has generally, with minor variations, followed the approach in the module.

The structure of the problem analysis module, which is used as "trainee" material, may be summarized as follows:

1. Problem perception
2. Problem diagnosis
3. Problem analysis

The last stage in problem analysis is to determine the data required for preliminary action planning.

The module is designed in three elements - problem perception, problem diagnosis, and problem analysis. The first stage, problem perception, involves a determination of problem symptoms; the second stage attempts to analyze causes and their likely effect on a given problem area; and the third stage, problem analysis, comprises the following analyses:

(i) the determination of causes which are under the control of the company;

(ii) the division of causes into these requiring additional resources and those needing no additional resources to affect;

(iii) the breakdown of "controllable" causes into these which are a function of "hardware," e.g., physical infrastructure, and those which result from "software" deficiencies, e.g., poor communications.

(iv) an analysis of problem causes, elements, and indicators;

(v) the determination of priorities between problem causes using a voting technique; and

(vi) the determination of data needs which demonstrate the significance of its cause in terms of its effect on the problem.

Our view of the design of this module is that it is inadequately structured, overly complex, and confused. Its structure is inadequate in that the data needed to make an assessment of the relative importance of causes is determined after these causes have been voted upon. Therefore, the voting process is rendered unnecessarily subjective. It is overly complex because steps (ii) and (iii) are not critical elements of problem analysis. Finally, it is confused because the module fails to differentiate clearly symptoms from causes and because the modules use unclear and inconsistent terminology. For example, causes are described as both "areas related to the problem" and "areas affecting the problem."

We understand that the problem analysis training is currently applied to the company's focus problem area only. It has not yet adopted a case study approach through which management trainees could learn and subsequently apply to an analysis of their own focus problem with minimal assistance from a MDP trainer.

Action Planning

Of the 16 client companies we have analyzed which have reached the action planning stage, 5 have not held a formal action planning workshop. Three of these five are early public sector client companies which reached this stage before an action planning module was devised. This is not significant in the

sense that action planning is a drawn out activity which begins after the completion of the problem-analysis process and goes through a number of drafts as new data is collected. The workshop may be seen as the culmination or finalization of the action-planning process. The duration of these workshops is typically three days, reduced to two in exceptional cases.

Data Collection

It is only possible to understand the problem-analysis and action-planning processes fully by examining the role of data collection during the training phase.

After examining the types of data collected subsequent to the problem analysis workshop during the preliminary action planning for our 16 companies, we have classified these in the following two categories:

- related to problem analysis
- related to action planning

In our view, most of the data collection efforts have tended to fall into the first category. These data are employed to derive a fuller understanding of causes and their significance, which were determined at the problem analysis workshop. In other words, this data collection activity is essentially a completion of the information which should have guided the selection of focus areas upon which to build action plans. Instead, participants at the problem analysis workshop were asked to vote on priority "areas related to the problem" (or causes in simpler language) without possessing comprehensive information on causes or the magnitude of their effects on the focus problem.

Nevertheless, some data collection efforts were relevant to the formulation of action plans in the sense that it is necessary to establish verifiable indicators, calculate their present values, and construct appropriate targets for an action plan, in a number of different improvement areas.

In sum, this lengthy data collection effort has proceeded out of phase with the problem analysis and action planning stages. The primary purpose of data collection in this stage is to derive a fuller understanding of the nature and significance of causes operating on a focus problem. Yet this data is only assimilated after problem analysis has taken place. The secondary purpose, the establishment of indicators and appropriate bench marks for the action planning, is relevant to this stage in the cycle. However, it would appear that only a part of the data collection effort falls in this category.

Elapsed Time

The elapsed time taken to complete the training phase varies from company to company ranging from 10 to 44 weeks, with an average of over 20 weeks, in the case of the 16 companies we have analysed. The major reason for these differences is the long and varying times taken to complete the data collection stage between problem analysis and action planning. Generally, the responsibility for this data collection has rested with the client, although in many cases the client service manager has relied on MDP consultants/research assistants and/or special resources. There is evidence that the time taken to collect these data can be reduced significantly when special resources are used and MDP consultants themselves collect the company's data. There is also evidence to suggest that data collection time can be reduced if:

- data needs are more focused; and
- observational and special data collection methods, by special resources, are used more extensively.

Specialized Training

Some form of specialized training has been conducted in 10 companies which we have analyzed and has taken place during both the training and the application phases. This includes on-the-job training as well as the more formal workshop sessions. In some companies, the training has been given to action group members and in others to other management staff. There has even been some specialized training for supervisory staff.

The content of specialized training has been determined by the nature of the focus problem(s) to be addressed during the application phase. For this reason, the subject matter has differed between companies and has been wide ranging in scope. In the 16 companies which we have examined in depth, the following specialized training was given.

SUBJECT	NUMBERS OF TIMES TAUGHT
Maintenance management	4
PERT and GANTT Charting	4
Inventory control	3
Flow-charting	2
Marketing	2
Work sampling	2
Production planning	2
Quality control	1
Management information	1
Communications	1
Delegation of authority	1
Organization analysis	1
Strategic planning	1
Budgeting and finance	1
Incentive systems	1

We also believe that, if more specialized training related to the focus problem had been conducted during problem analysis and action planning, this would have strengthened the "integrative" skills training. It would also have enabled MDP to assess the

need for managers to undergo more advanced specialized training. One should also note that both the American University in Cairo and EIDDC provide specialized training in many of the areas identified.

The conclusion which may be drawn is that specialized training is not extensively conducted. Moreover, this training has generally been of a short duration and does not constitute the relatively advanced level of training envisaged in the project design. On the other hand, however, it is likely that there is a tendency for client service managers to understate the degree of informal on-the-job training which inevitably takes place during action planning and implementation.

d. Impact

Number of Managers Trained

According to MDP's periodic reports, 845 managers have been trained to date. We have ascertained that this figure only includes managers who have undergone formal training to the exclusion of on-the-job training. It therefore covers attendance, avoiding double counting, at:

- top and middle management workshops
- problem analysis workshops
- action planning workshops
- specialized training workshops

It is not possible to determine how many managers have participated in each of the above four types of workshop, as training records are not maintained in this way.* Moreover, the volume of training undertaken says nothing about its effectiveness, which we examine in the following subsections.

*Westinghouse indicated, in response to draft report, the following numbers: Top and Mid Management Workshops 536; problem analysis 122; action planning 74; specialized training 469.

Client Satisfaction

During the evaluation, 16 interviews with client companies were conducted to ascertain client satisfaction with regard to the MDP intervention in general and the training conducted in particular.

The comments we obtained may be summarized as follows:

- There was a general contentment with the training which had been carried out, often because this was done on site and was perceived to be practical;

- One of the major benefits arising from the training was an improvement in organizational communications, in that MDP had demonstrated the value of inter-departmental meetings;

- There was a feeling that managers who had undergone training were now better equipped to deal with problems in the future;

- There was some evidence of spin-off effects on sub-ordinates, but not other managers, as a few participants in the training programs are trying to pass on their knowledge to supervisory staff;

- There was a feeling expressed by one participant that training should be more broad based, covering more functions and levels of management;

- Some managers felt that the amount of specialized training was insufficient, particularly in maintenance management; and

- There was a general feeling that the workshop sessions were too short relative to the quantity of material covered.

The results of these interviews are indicative, but not conclusive evidence, of the effectiveness of training. The use of participant self-ratings is a relatively weak tool for evaluating training. However, within the timeframe of the evaluation and in the absence of any formative evaluations conducted by the project, this proved to be the only feasible method. A more reliable device would be to make an assessment of participants' knowledge and behavior both "before" and "after" training, using structured tests and interviews and through observation. We suggest that MDP begin utilizing such devices.

At this stage, we have no conclusive evidence that trained managers are now capable of solving real problems themselves, although the major purpose of training was to develop a capacity within companies to address their own problems without undue reliance on external assistance.

Evaluation of Training Materials

It is possible to make deductions about the likely impact of training by evaluating the training materials. For instance, if the training material is weak, there are prima facie reasons for concluding that the training structured around this curriculum is unlikely to be entirely effective, although these negative effects can be offset by other aspects of the curriculum, such as the quality of the trainers and the methods they use.

MDP has endeavored to evaluate the effectiveness of various workshops through the participant self-rating method, using a structured questionnaire which asks respondents to record their impressions regarding 10 differentiated items on training received. However, we understand that the results of these questionnaires have not been analyzed or aggregated, except for a

few workshops. For this reason, it has not been possible to feed back the results to improve training content, methods, or curriculum. We have, therefore, conducted our own evaluation of the training materials in conjunction with our AUC counterparts.

The specialized training modules which have been reviewed vary from the good to the outstanding. Of the modules relating to the "integrative" skills training, the action planning module is excellent, and the problem analysis module is relatively weak. On balance, therefore, MDP has succeeded in developing a wide range of good training material.

However, the specialized training materials are only suitable for trainers as, in general, they incorporate too much subject matter in a textbook style, which is unsuitable for MDP's management trainees. The effectiveness of MDP teaching, therefore, is critically dependent on the skills of and methods used by the trainers. Nevertheless, we understand that these materials have been distributed, inappropriately at this stage, to management trainees.

In sum, MDP has made very good progress in developing training materials in view of the limited time and the relative absence of appropriate existing material. However, there has been insufficient emphasis on developing material which can be used directly by management "trainees."

e. Training Recommendations

1. All training materials should be reviewed and revised, if necessary, with a view to making them more friendly for trainee use both during training and as reference material later. The problem analysis module should be strengthened with the assistance of AUC staff. (See Recommendations--development of training materials.)

2. All courses conducted should be evaluated through structured interviews/tests carried out "before" and "after" training to assess changes in knowledge and skills. If feasible, behavioral changes some time after training should be measured using observational methods to assess the development of a problem-solving capacity within the company.

   We believe this to be a critical deficiency in the current project.

3. All completed participant questionnaires should be analyzed with a view to improving the questionnaire in terms of the range of differentiated items.

4. More specialized training should be conducted both of the "introductory type," to strengthen "integrative" skills training, and more importantly of an "advanced" nature.

5. Consideration should be given to lengthening the formal training sessions. Linkages with AUC programs should be established.

6. MDP staff and special resources should be more intensively involved in data collection activities during Phase II to reduce elapsed time and man-days needed to complete this phase.

7. Data collection should be more focused in this phase. More reliance should be placed on observational and special data collection methods, rather than existing company data, using special resources, if necessary, to generate critical data.

8. Problem analysis and action planning should be integrated more carefully and restructured to maximize the use of data collection activities.
   Case studies should be used in problem analysis sessions with a view to developing managers' skills to a level where they are capable of analyzing their own focus problem.

9. Top management should be encouraged to attend the final sessions of both the problem analysis and action planning workshops to improve knowledge of and commitment towards the MDP intervention at all levels of management.

10. In the long run, short-term intensive training should be provided after the application, where indicated by training evaluations, to reinforce problem-solving capacities of individual managers.

Phase III - Application

This section is described under the following headings:

a. the scope of the application phase;
b. a comparison of implementation with design;
c. an analysis of client dropouts;
d. an assessment of the impact of client service delivery; and
e. recommendations.

a. Scope of Application

The application phase of a client intervention involves the implementation of action plans which are finalized at the end of Phase II. Application ends when these plans have been implemented, although the benefits of the executed solutions may not be captured until some considerable time afterwards.

b. Comparison of Implementation with Design

The original project design implicitly assumed that action planning is an integral part of the application phase. It also states that the results of this phase would be compared with objectives set during the diagnostic phase. It is clear, however, that in terms of actual project implementation, action planning, involving the establishment of objectives, is part of the training phase. We believe that this reinterpretation of the project design has strengthened the quality of client service delivery; therefore, we shall only examine the implementation of the application phase using the following parameters:

- type of assistance provided;
- the duration of application; and
- referrals to other projects.

Type of Assistance Provided

MDP has generally provided consulting assistance during the application phase with some specialized formal or on-the-job training. These consulting and training services have been the responsibility of the designated client service manager who may request Egyptian or U.S. special resources to assist the application process. The need for external assistance is normally ascertained during the action planning process. Special resources have been used extensively, particularly Egyptian personnel with industrial engineering backgrounds. Industry specialists in, say, textiles or food processing have generally been recruited on a short-term basis from the U.S. There is evidence from our interviews that some client service managers are more likely to use special resources than others, independently of the focus problem.

Consulting assistance and related training can also be analyzed in terms of the focus problem or outputs to be tackled

in the application phase. These may be summarized as follows for the 16 companies which we have analyzed:

- marketing
- maintenance management
- production planning
- inventory control
- management information
- incentive systems
- quality control

In addition, there are a number of interventions which have been designed to tackle the broader focus problems of capital, labor, and materials productivity.

A comparison of assistance given in the application phase with the action plans established at the end of Phase II shows that, in 3 companies, implementation deviated from plans. These changes seem to have arisen largely because of joint MDP-client needs reassessments but also as a result of CSM preference.

Duration of Application Phase

There are 3 companies which have completed the application phase in an average time of 39 weeks, the shortest time being 32 weeks. An examination of the elapsed time taken in other companies, which are still continuing with the application phase, reveals that this phase is unlikely to be completed in less than 40 weeks. The conclusion which may be drawn is that, when average durations for the diagnosis and training phases are considered, it would take more than one year to complete the PI cycle in all client companies with which MDP is contracted. In our view, this period is excessively long and can result in reduced commitment in client companies.

Referrals to Other Projects

In the project design, it was envisaged that the impact of MDP interventions in client companies could be enhanced if these could be integrated with the services offered by other USAID projects. MDP has referred three of its clients to ITAP for assistance which it could not provide itself. One referral, resulted in a contract for ITAP. In addition, MDP has made one referral to the IESC project. Significantly, MDP has acquired no clients from introduction given by ITAP. although ITAP has approached 13 companies in total which are currently or have been MDP clients.

Our assessment, however, is that MDP has not exploited the services of ITAP to their full potential. There is evidence that MDP has endeavored to be selective in only tackling focus problems which are within the project's capabilities and are amenable to short-term solutions, perhaps at the expense of long-term gains. MDP should refer more to ITAP leaving its staff to tackle MDP client objectives, particularly as they relate to implementation. Therefore, we suggest that some technology-related problems may have been inadvertently suppressed. In spite of this, a more fundamental explanation of the small number of ITAP referrals is that MDP engages a significant number of industrial engineers both as consultants and as external resources. With this expertise available, more technology-focused problems can and indeed have been handled directly by MDP.

c. An Analysis of Client terminations

The application phase of the PI cycle has proved by far the most difficult to implement. Only 3 companies have successfully completed this phase, of the 16 who have completed Phase II. The status of these 16 companies may be summarized as follows:

ALYSIS OF APPLICATION PHASE FOR 16 CLIENT COMPANIES

COMPANY CODE	ELAPSED TIME (WEEKS)	WAS APPLICATION IDENTICAL TO ORIGINAL ACTION	NUMBERS OF SPECIAL RESOURCES	ITAP AND OTHER REFERRALS	STATUS
F4G	37	Yes	2	-	Complete
F3G	32	No	3	ITAP	Complete
B1G	in process	Yes	2	-	Continuing
Pilot	48	Yes	-	ITAP	Complete
T4G	(40)	Yes	2	IESC	Continuing
F1G	(26)	Yes	1	-	Continuing
T7G	Not started yet	N/A	N/A	-	A*
T5G	Not started yet	N/A	1	-	Drop-out
M4P	in process	Yes	1	-	Not started
F6G	Not started yet	N/A	N/A	-	Not started
F5P	Not started	N/A	N/A	-	Not started
T2G	(27)	Yes	-	-	Started B*
F2G	(40)	No. 3	1	-	Continuing
T3P	in process	No. 4	1	-	Drop-out
T1G	Not started	N/A	N/A	ITAP	C*
M1G	in process	Yes	1	-	Continuing

- MDP work approved. Implementation delayed.
- Job completed by MDP. Client had to implement himself due to approvals etc.
- Job completed by MDP. Client implementing and results achieved in inventory area.

:es:

1. Maintendnace management information and purchasing management added.
2. This company is potential drop-out.
3. A second Phase III proposal was submitted to the new chairman to focus on meeting.
4. Phase III proposal differed from the action as Miratex would not agree to the special resource identified. They agreed finally towork on a communication programme and a new organization chart instead of the incentive system devised by MDP. They installed changes to incentive system based on MDP suggestions. The communication priogram and org. were agreed to early in Phase II.
5. Drop-outs arise from a variety of different causes. (See "Application" Phase in main text).

( ): Represent elapsed time to date in companies where the application phase is incomplete.

N/A: Used for companies which have not started or insufficient advanced in the application phase to make an assignment regarding deviations from action plans or the use of special resources.

Status	Number	Percentage
Completed	3	19%
Continuing	5	31%
Not started	3	19%
Discontinued	5	31%

Client terminations include those who voluntarily choose to implement the action plans themselves, those terminated by MDP management, and those where no agreement has been made to continue. Discontinued clients cannot, therefore, necessarily be regarded as project failures. Two companies felt that implementation was their responsibility, two others were unable to take a management decision to continue, and the fifth client has, in fact, made some progress in implementing the action plans. Although the two companies which decided to implement themselves have not succeeded, MDP should not accept responsibility except in so far as it agreed to tackle problems which had no easy solutions. However, we believe that MDP should accept some responsibility for the two companies where management could not agree to continue, although we believe that the major responsibility rests with the client.

There are some common characteristics relating to these five discontinued clients which are useful in understanding the real causes of unsuccessful application:

- all are textile companies;
- for three of the five, incentive systems were a focus problem; and
- four of the five were contracted subsequent to the first productivity conference in December 1982.

All except one of these companies became MDP clients at an early stage in service delivery at a time when MDP was anxious to commence the PI cycle with companies. MDP may not have been ready to deal with this industry, and a subsequent problem with

one of the leading companies may have resulted in a problem of reputation for MDP. It is evident that the contractor had relatively little freedom to be selective in choosing its clients at this stage.

In summary, our informed judgement is that difficulties experienced in achieving results in the application phase are related to the context of company managerial decision making and its reward system, as well as the performance of the consultants. Three observations have guided this conclusion:

(i) Some managers may choose to discontinue with MDP in an attempt to claim credit for themselves if they succeed in implementation or pass blame to MDP should they fail;

(ii) A management decision(s) may be a necessary condition for effective implementation, but such decisions may entail high risks in the event of failure, especially in the public sector, where promotions can be more easily achieved by waiting for the "seniority" rule to apply;

(iii) Public companies and their management are not motivated by commercial criteria because "profitability" objectives are not expected of them by the government. There is, therefore, little incentive to implement performance-related solutions which have been recommended by MDP.

All of this indicates that a careful selection as envisioned in the project design process must now be instituted by MDP management and the Advisory Committee.

d. Impact of Client Service Delivery

We have addressed the impact of the PI cycle at the organizational level in two ways:

1) through an assessment of participant satisfaction with MDP intervention; and

2) by an assessment of management development and measurable objectives achieved, including unintended or ancillary benefits which were not included in company action plans.

Discussion of the monetary benefits in relation to costs are examined in section.

Participant Satisfaction

Our interviews covered 16 companies, equivalent to 57% of MDP clients. We were unable to discover a single company which reported an overall dissatisfaction with the MDP intervention. This finding, however, should be considered with the following caveats:

- Many interviewees had no experience of the application phase, being managers/chairmen of companies which were progressing through Phases I and II of the PI cycle: their positive attitudes cannot, therefore, be taken as evidence of project effects, which are generally achieved during and subsequent to the application phase but rather of consulting/training assistance to date;

- We were did not interview, for various reasons, a number of public sector companies where, from our discussions with client service managers, MDP has

experienced significant implementation difficulties; and

- Participant perceptions of project effects cannot substitute for a more analytical assessment of goal achievement and may indeed be based on relatively low expectations regarding project assistance.

In one company, we discovered a measure of client dissatisfaction regarding one element of MDP assistance. However, MDP's consultants took remedial action to satisfy the client, and, moreover, this one negative aspect was, in the client's view, more than offset by the excellent work they had performed in another focus problem area.

One of the major benefits as perceived by the clients was an improvement in organizational communication. In some companies, special departments have been established as a result of the MDP intervention to promote productivity-focused management, and, in others, there is a general feeling that inter functional communication and, consequently, company planning have been strengthened. One may conclude, therefore, that MDP has generated an enhanced awareness of the importance of organizational effectiveness in improving company performance. Moreover, these changes have even occurred within some companies where the action plans have not been fully implemented.

Management Development and Measurable Goal Achievement

Participant satisfaction needs to be complemented by a more objective analysis of the actual results achieved, in each company, during and prior to the application phase. The Table on the following pages represents goal achievement in 16 client companies at two levels:

1) a comparison of the "outputs" achieved compared with those set in action plans; and

2) a comparison of verifiable "objectives" achieved compared with those set (or implicit) in action plans.

The table also includes unintended or ancillary goals achieved within client companies, i.e., those "outputs" and "objectives" which were not explicitly established in action plans.

An analysis of "outputs" achieved reveals that 8 companies, or 50% of those examined, have realized at least some, if not all, of the goals set in the action plans and/or some unintended benefits. Of the remaining 8 companies, 6 have either not yet implemented or are currently implementing the action plans established at the end of Phase II in the PI cycle. It is unlikely, in our professional judgement, that all of these 6 companies will succeed in completing the application phase. Nevertheless, at this stage, the evaluation can only find two companies where nothing at the output level has been achieved.

Planned outputs achieved in the application phase include:

- a marketing study;
- improved controls over the use of materials;
- improved production planning;
- a new plant layout;
- a sales forecast;
- improved worker incentive systems;
- better quality control;
- improved working conditions;
- a change in the nature of the product; and
- machine redesign.

Unintended outputs achieved have sometimes occurred prior to the application phase and include:

- a maintenance management system;
- a scrap measurement system;
- a detailed marketing plan; and
- the establishment of new departments responsible for productivity-related concerns.

An analysis of "outputs" achieved, however, says nothing about the attainment of actual benefits. At the level of verifiable objectives, there are only 4 companies which have reached the goals established in the action plans and where these benefits are likely to be sustained. (In addition, there are 2 companies which dropped out but which achieved short-term and non-substainable benefits).

A summary of these verifiable objectives achieved for these 4 companies is as follows:

Company 1: a 3% reduction in raw materials waste;

Company 2: a general improvement in materials productivity as a result of a change in the nature of the product;

Company 3: a reduction in inventory and a reduction in manufacturing cycle time; and

Company 4: a reduction in absenteeism, labor turnover, and an increase in employment as a result of a partial implementation of a new incentive system.

In our view, these goals include a disproportionate emphasis on engineering/technical solutions as opposed to benefits attained as a result of enhanced management development.

(1) MANAGEMENT DEVELOPMENT AND MEASURABLE GOALS IN 16 CLIENT COMPANIES

COMPANY CODE	OUTPUTS OF ACTION PLANS (1)	OUTPUTS ACHIEVED[2] (2)	VERIFIABLE OBJECTIVES OF ACTION PLANS[1] (3)	VERIFIABLE OBJECTIVES ACHIEVED[2] (4)	COMMENTS (5)
F4C	1. Materials control System.	All Achieved	Reduce materials waste by 3%	Achieved	
	2. Material waste measurement system				
	3. Materials handling		Improvement in materials procuc-tivity (related to No. 2 of action plan)	Achieved	
	4. Maintenance Manage-ment				
	5. Labor training				
	6. Quality Control				
	7. Marketing Diagnosis and training.				
F3C	1. Hopper redesign	Achieved			
	2. Introduction of 200 gm. box.	Achieved			
	3. Reorganization of warehouses	Not achieved			
	4. Improvement in working conditions	Achieved			
	5. Better use of shift time.	Not achieved			
	6. Increase speed of response in box charge control	Not achieved			
	7. Improve line's packaging speed.	Maintenance	Improved communi-		

(1) MANAGEMENT DEVELOPMENT AND MEASURABLE GOALS IN 16 CLIENT COMPANIES

COMPANY CODE	OUTPUTS OF ACTION PLANS (1)	OUTPUTS ACHIEVED[2] (2)	VERIFIABLE OBJECTIVES OF ACTION PLANS[1] (3)	VERIFIABLE OBJECTIVES ACHIEVED[2] (4)	COMMENTS (5)
		management not yet achieved	cation.		
B1G	1. Improve spare parts system 2. Reduce duration of conveyors. 3. Improve layout.	Not implemented yet			

Notes: 1. These include implicit objectives where these can be determined.

2. Includes unintended effects.

(1) MANAGEMENT DEVELOPMENT AND MEASURABLE GOALS IN 16 CLIENT COMPANIES

COMPANY CODE	OUTPUTS OF ACTION PLANS (1)	OUTPUTS ACHIEVED[2] (2)	VERIFIABLE OBJECTIVES OF ACTION PLANS[1] (3)	VERIFIABLE OBJECTIVES ACHIEVED[2] (4)	COMMENTS (5)
T2C	1. Incentive System	Not achieved new department in place	Improve labor productivity	Not yet achieved	Client to implement on own
F2C1	1. Sales plan & forecast		Increased sales & profits	Change in price structure Packaging improvement	
	2. Marketing organization structure	Not yet achieved			
	3. Design salesman training				
T3P	1. Incentive system	Partially achieved	Reduce absenteeism	Achieved	
			Reduce labor turnover	Marginal improvement	
		New department set up for production planning, quality control & training	Increase employment	Achieved but entirely due to incentive system achieved	
T1C	1. Incentive system	Not achieved	Improved output	Sales of excess stock	Short-term benefit
	2. Inventory control	Not achieved	Reduced Fin. Goods inventory	Improved lighting	

(i) MANAGEMENT DEVELOPMENT AND MEASURABLE GOALS IN 16 CLIENT COMPANIES

COMPANY CODE	OUTPUTS OF ACTION PLANS (1)	OUTPUTS ACHIEVED[2] (2)	VERIFIABLE OBJECTIVES OF ACTION PLANS[1] (3)	VERIFIABLE OBJECTIVES ACHIEVED[2] (4)	COMMENTS (5)
FIG	1. Preventive Maintenance	Being implemented	1. Reduce risk of machine break-down	Not yet achieved	Likely to be achieved
	2. Spare parts inventory	Being Implemented	2. Reduce expenditure on spare parts	Not yet achieved	Likely to achieved

Notes: 1. These include implicit objectives where these can be determined.
2. Includes unintended effect.

(1) MANAGEMENT DEVELOPMENT AND MEASURABLE GOALS IN 16 CLIENT COMPANIES

COMPANY CODE	OUTPUTS OF ACTION PLANS (1)	OUTPUTS ACHIEVED[2] (2)	VERIFIABLE OBJECTIVES OF ACTION PLANS[1] (3)	VERIFIABLE OBJECTIVES ACHIEVED[2] (4)	COMMENTS (5)
T7G	1. Improve supervision 2. Better labor utilization 3. Incentive system	Improved incentive system	1. Improve labor 2. Improve planning/control	Not achieved Management awareness of causes of absenteeism	

In addition, we have ascertained a limited number of unintended objectives which have been reached and which may be considered sustainable, namely:

- improved organizational communication;
- a heightened awareness of the causes of low productivity;
- a change in product price structure; and
- improved packaging.

These spin-off effects have been observed in four companies.

The findings demonstrate that MDP interventions have had some effect, but that the benefits at the level of verifiable objectives are far more limited in scope than those measured at the level of "outputs." It is likely, however, that many more objectives either planned or implicit in the action plans can be achieved as MDP progresses more clients through the application phase. In addition, there is evidence in one public sector company that the benefits can be replicated in a number of sister companies through the application of an MDP maintenance management system.

Our conclusions regarding the impact of client services may be stated as follows:

- The level of client satisfaction is high, but we believe that this reflects an assessment of "outputs" rather than measurable objectives achieved, in view of the limited scope of this level of goal attainment;

- Impact at the level of verifiable objectives is relatively low, but an examination of both client status and "outputs" achieved would strongly suggest that, in the future, as the PI cycle unfolds, many additional measurable benefits are likely to result;

- The relative lack of success in getting clients to complete, or even start, the application phase is largely due to problems residing in the client company, and success, therefore, has been largely outside the contractor's control; and

- Project achievements at the company level have been due to a mixture of engineering and management solutions: to the extent that the installation of improved management has been neglected, some of these benefits may not be sustainable in the long run.

There is, therefore, considerable scope for extending and improving the impact of the application phase in the PI cycle.

e. Recommendations: Applications

There should be a stronger emphasis on providing solutions through management development. The boundaries between management and engineering solutions needed to be carefully defined and controlled by project management. Industrial engineers should be used to complement and strengthen interventions which are primarily designed to improve management at the company level. Technical assistance resources should be solicited from ITAP, as well as traditional MDP sources, for this purpose.

2. Project management should monitor more closely deviations from the action plans during the application phase. Such deviations are acceptable in certain circumstances if client needs change, but they are unacceptable if initiated by client service managers in an attempt to redirect the intervention

towards an "output," which can be implemented more easily than the tasks outlined in the action plan.

3. The application phase should be continued in those companies with which MDP is currently working, because the level of client satisfaction is high and there is considerable scope for achieving additional measurable benefits.

4. Management should establish coherent guidelines for formulating action plans, which clearly specify and differentiate "outputs" or "tasks," from verifiable objectives, which represent goal achievement at a higher level. These objectives should also have a strong cause-effect relationship with the planned outputs. They should also incorporate a quantitative measure, e.g., a 25% reduction in machine down time, which need not have a monetary counterpart, measured in terms of savings or profits. The use of such yardsticks will enable MDP and future evaluators to assess accurately the "success" of client service interventions. The assessment of the monetary benefits present severe difficulties for evaluators, not least of which is the problem of isolating the impact of the project intervention from other influences. (See discussion in Chapter IV.) The more divorced the "effect" is from the original intervention, the more difficult it is to assign outcomes to the project. For this reason, MDP should set objectives for itself which have an intuitively strong and close relationship to the assistance provided during the application phase.

5. Project management should pursue a more intensive approach to the application phase in an endeavor to complete it more rapidly and, thereby, avoid a loss

of momentum and interest on the part of the client. A necessary condition for achieving this goal is for MDP management to assess its current manpower capacity and plan its future manpower needs for completing the application phase in individual clients on this basis.

6. MDP client interventions should be more selective in the future. Selectivity is likely to lead to a bias towards the private sector, although this should not be to the exclusion of the public sector. MDP can help public companies, provided that interventions are not strictly directed towards traditional, commercial, or performance criteria but are geared towards the more intangible political and economic concerns of the chairmen, e.g., the concern to ensure continuity of production rather than improve profitability. Such objectives can still be met through productivity improvements.

7. Involvement of MDP with client companies should be considered beyond the completion of the application phase on a strictly short-term basis to reinforce the problem-solving capacity of company management through "refresher" training.

2. Task Force Visits to the United States

According to the project design, the purpose of the task force is to learn from observation/discussion how U.S. managers cope with a particular problem and to communicate this to Egyptian colleagues.

In order to accomplish the stated purpose, task force members were to be selected by MDP staff based upon overall performance in the training/application phase. Criteria for selection was to be a joint effort by MDP and Adcom with objectives of motivating

performance during training and application, and providing useful results for Egyptian industry. Those selected would focus on an issue (i.e., inventory control), on an industry-specific basis. Upon returning from the U.S., knowledge acquired was to be shared with industry representatives and business schools.

Our findings suggest that task force members were typically chosen from the action group with the CSM taking part in the decision process. Adcom played no role in determining selection criteria. Rather, MDP selected task force members based upon opportunity for promotion, the level of participation in the training and/or application period, and their ability to understand English. Although judgmental, for the most part, action group members felt that the selection process was equitable. Exceptions to this occurred when the Chairman intervened, a factor outside the control of the contractors.

Task force members did learn from observation, particularly in the case of factory visits. For example, managers were able to see the efficiency of U.S. factories. They gained an awareness of how they could affect changes in productivity. They also saw that communication and sharing of information helps a company operate more efficiently.

To a lessor extent, managers gained a broad awareness of automated productivity systems from an organizational perspective by visiting the Westinghouse productivity center. The deficiency in this part of the visit was that managers were not learning how they could affect change, given the Egyptian company's level of automation. More often than not, the manager returned from the U.S. concluding that if he had more technology, the company would become more productive as opposed to the belief that the managers could improve performance within technological constraints.

Although clients were basically satisfied with the task force visits, our analysis suggests that there were some problems in implementation because clients did not sign up with MDP as originally envisioned, and because MDP lacked the organizational control to institute a number of important task force require-

ments. For example, the visits tended to have a general versus problem-specific focus. According to task force members, company visits were basically tours. They did not focus upon problems identified in the productivity improvement (PI) cycle.

Further, some animosities were created among action group members not selected to go to the U.S. This was due to the fact that visits took place at the end of Phase II of the cycle, leaving those not selected to carry out the Phase III implementation.

In addition, members returning from the U.S. did not disseminate knowledge to business schools, to industry representatives, or to their colleagues except on an ad hoc basis. However, the contractor did organize the Productivity Management Forum which does provide for interchange of ideas among task force participants.

Further, the contractors did organize visits on an industry-specific basis. However, because clients of different industries began the cycle at different times, their respective stages in the PI cycle did not coincide.

Recommendations: Task Force Visits to the U.S.

Task force visits are a vital component in the management development process according to the clients, the implementors and our analysis. They serve as both an incentive and reward to participating in the MDP program. Accordingly, with select changes on implementation and based upon what has been learned to date, task force visits can become more effective. The following implementation changes should help in this process:

- Organize task force visits around management problems identified, not industry sectors. There are advantages to this strategy. It will demonstrate to managers that other industries face similar problems. It should add depth to a manager's problem-solving learning experience if he can translate what

he sees in a different industry to problems faced in his own, thus maximizing broad management learning skills;

- Plan task force visits at the end of phase III. This should decrease the difficulties created by different client completion dates. Moreover, action group members should have an incentive to complete Phase III with enthusiasm; and

- In addition to the informal application of learning skills to the training, members should share their knowledge by means of reports and presentations to the business community, universities, and industries. This will not only hold task force members accountable for knowledge acquired in visits to the U.S., but it will create a written and verbal base of knowledge.

3. Promotion

According to project design, marketing was to achieve the following activities:

- promote the concept in order to generate business and to develop demand for MDP-type services in the long run; and

- incorporate marketing as an integral part of the project.

The contractors have met some of these goals but not in any organized fashion. Demand for service is just now emerging as a result of what appears to be successful interventions and the consequent word-of-mouth advertisements. The contractor has designated one individual with marketing responsibilities. This

individual has gathered data and acted as a marketing coordinator. His responsibilities, include serving a client base, which may detract from marketing activities.

MDP did initiate broad-based marketing efforts to the public and private sectors in Cairo and its environs, beginning in August 1982. Three basic methods were used:

- impersonal contacts (mailings, phone calls);
- limited newspaper advertisements; and
- assistance by the Advisory Committee and AID.

These efforts were followed by five conferences throughout Phase I of the contract:

- a general conference in December 1982;
- two industry-specific conferences midway through the cycle (food processing and textiles);
- two more general conferences before the Alexandria business community during the latter part of the Phase I cycle; and
- personal contacts, focused upon industry-specific sectors.

Clients have resulted from personal contacts and conferences, particularly from the first conference in December 1982. During this conference, all MDP staff gave presentations on the Egyptian economy, on the solution-oriented approach and objective rationale of MDP, or by demonstrating the need for productivity in order to improve businesses in Egypt.

They did not, however, analyze marketing data or have a formal marketing plan/strategy that would measure marketing effectiveness or guide the CSMs in targeted marketing efforts. Therefore, in order to determine the effectiveness of marketing efforts and to provide recommendations for marketing improvements, we have analyzed the data provided by the contractor on three levels:

- o industry specific
- o geographic
- o methods of marketing

Overall Marketing Analysis

Sector	Number of Companies Contacted			Number of Contracts Generated			
	Private	Public	Total	Private		Public	
				No.	%	No.	%
Food Processing	40	57	97	2	5%	71	2%
Textiles	18	33	51	2	11%	5	15%
Metals	14	20	34	1	7%	4	20%
Other	107	60	167	4	4%	3	5%
Total	179	170	349	9	5%	19	11%

Alexandria Market Analysis

Sector	Number of Companies Contacted			Number of Contracts Generated			
	Private	Public	Total	Private		Public	
				No.	%	No.	%
Food Processing	7	15	22	0		1	7%
Textiles	6	7	13	1	17%	0	
Metals	2	3	5	0		0	
Other	4	12	16	_	0	2	17%
Total	19	37	56	1	5%	3	8%

Analysis of Marketing Methods

Sector	Number of Companies Contacted		Number of Contracts Generated			
	Private	Public	Private		Public	
			No.	%	No.	%
A. Single contact						
1. Letter or phone only (impersonal)	81	43	0	0		
2. Conference only general	46	77	0	0		
B. Two or more contacts						
1. Conference + presentation/ tour	14	19	3	21%	8	42%
2. Conference + letter/phone	2	5	0		0	
3. Presentation/ tour + letter/ phone	1	2	1	100%	2	100%

This analysis coupled with company and CSM feedback results in the following findings.

In general, more public sector business has been generated than private. This can be attributed to the degree of high-level support given by the Ministries and Adcom, particularly in the beginning of the MDP project wherein 7 of the 28 clients resulted. By the same token, Ministry-level support is not sufficient alone. MDP needs the commitment of the Chairman to ultimately achieve a successful intervention.

Without further information, it is difficult to make any significant conclusions regarding the benfits to concentrating on one industry to the exclusion of others. The contractor can analyze why certain industries represent a larger percentage of the client base (i.e., was it due to an enthusiastic ministry, to topics covered during conferences, or the fee structure agreed upon). They can also analyze which management or industry characteristics indicate that a company might represent a strong or weak candidate.

An effective way of achieving private sector business has been through personal contacts. Moreover, in the longer term, a private sector focus may achieve better results in terms of cost effectiveness to the contractor and in terms of creating demand for MDP services. For example, our findings suggest that the private sector progresses quickly through the P.I. cycle, supplying data as needed. The private sector is more motivated to improve management development and company performance. It understands the contribution that consultants can make in the problem-solving process as opposed to the skepticism of the public sector. Finally, the private sector understands value for services; accordingly, fee amounts and collection represent no problem.

These characteristics suggest, on the one hand, that private sector companies represent an easier target market, yet there are also reputable public sector companies that share the characteristics of highly motivated chairmen and/or are somewhat independent of ministries. Accordingly, public sector companies should not be ignored, particularly since they represent a majority of Egypt's GNP. This issue was raised in the project paper and we emphasize the need for USAID, the Advisory Committee and Westinghouse to more carefully select candidate companies.

Conferences remain an effective marketing tool, particularly if they are problem focused, are sponsored by Ministries in the case of the public sector and business associations in the private sector, and are supplemented by consistent market follow-up. Conversely, single contacts have no value as measured by the percentage of business generated. In fact, it is a drain on staff time and overhead cost.

Although it is perhaps premature to draw conclusion it appears Alexandria businessmen are more receptive to the MDP concept. And this may prove to be a better market for future programs.

a. Recommendations

The contractor should analyze in detail existing data and should develop a marketing plan and strategy based upon the following determinants:

- the goals and objectives of the MDP concept and open door policy (i.e., revitalization of the private sector, employment generation, generation of foreign exchange, encouragement of public sector efficiency);

- extensive market research for the public and private sectors on a geographic basis;

- the lessons learned from marketing efforts to date; and

- marketing techniques that work best in the Egyptian environment.

The following suggestions can serve as guidance in this planning process:

- Target public and or private sector companies not dependent totally on imports and/or who are capable of generating net foreign exchange. This would, by definition, exclude several of MDP's present clients but would result in more beneficial interventions;

- We would suggest that a greater emphasis be placed on private sector companies. However, if MDP continues to target public sector companies, it should concentrate on public sector chairmen who have more latitude in decision making or who are more integrated into the international economy. Examples include chairmen who are answerable to international commodity market forces, thus necessitating quick

decisions (and decreasing the likelihood of awaiting for ministry decisions) or those companies operating in sectors which represent Egypt's that have a comparative advantage;

- Invite satisfied MDP clients to speak at conferences (i.e., The President's Forum). This is particularly effective in the Egyptian economy. It is a means of reputation building, of nurturing trust, and of allowing participants to gain confidence in a decision to work with MDP by seeing others who have taken advantage of the MDP opportunity. Further, extend the President's Forum to include nonclients and put more substance in it (i.e. developing position papers);

- Continue to market MDP as a solution-oriented program to differentiate from theoretical consulting services;

- MDP should not, in the future, be marketed as an AID-financed project, but rather as an Egyptian management project using American technical assistance;

- Use the rotation of public sector chairmen to the advantage of MDP. For example, make an assessment of progressive chairmen and dovetail their company moves; and

- Create an executive marketing committee at senior levels whose composition first centers around the strategic functions of Egypt in an economic sense and uses this goal to muster political and business support.

4. Development of Training Materials

The intention in the original project paper was to base the development of training materials for client firms on existing Egyptian and foreign training material. Westinghouse proposed to use Team Misr as the main source of Egyptian training material as a source of foreign training material. However, it was discovered at the start of the project that there was little appropriate Egyptian training material available, although a few of Team Misr's training packages were suitable for adaptation. In addition, AMA wished to sell material to Westinghouse directly off the shelf, which was perceived to be inappropriate for the Egyptian environment. As a result of the relative absence of relevant training material, curriculum development proceeded virtually from scratch.

All MDP senior professional staff helped to develop training modules which were tested both on MDP staff and client companies. Overall responsibility for the development of training materials, however, rests with the project director and one Egyptian senior staff member. This process of generating entirely new training materials had a negative effect on the delivery of services to client firms for two reasons. Firstly, considerable staff time was devoted to this activity to the neglect of other project activities, and secondly, training materials were developed during client interventions and were tested on company personnel.

At the beginning, training modules were developed without knowledge of the specific problems likely to be experienced by client companies. However, as client diagnoses commenced, training material was developed in response to client needs. The net result of this evolution of training materials is that there is now a mixture of highly relevant and marginally relevant material available, the latter of which is not currently being used.

Training materials are generally available in Arabic and English and include questionnaires and exercises, case studies, and audio visual materials, as well as the integrative and technical training modules.

The concern with the development of training materials has taken considerable time and effort. The material has been subject to continuous pretesting and revision to ensure that it is appropriate to the needs of the project.

The project management is of the opinion that MDP has a broad range of training materials of an acceptable quality which could be used in other teaching programs in Egypt. Until the beginning of 1985, no formal institutional links had been established to disseminate MDP's training material, although three MDP staff members have used material in their university teaching. Now the project is beginning to offer training materials to Egyptian universities by means of a general letter. We understand that AUC would be interested in using much of this material in management training after adaptation to AUC's preferred formats. However, it is not perceived to be appropriate as material to be used by undergraduate students but could be used in their executive programs.

We have not been able, within the timeframe of this evaluation, to assess the adequacy of all the training material which has been developed by MDP. However, a review of a sample of the written training modules indicates that there is scope for improvement for the following reasons:

a) Much of the training material is complex in content and approximates too closely a textbook structure and is, therefore, not suitable for "trainees" who have had little prior exposure to the subject matter. Nevertheless, we understand that all training material used is distributed to action group members in client companies; and

b) In general, the material is oversophisticated for the Egyptian industrial environment and may reinforce "fatalist" attitudes among Egyptian managers.

In conclusion, the development of suitable training materials has been retarded by the insufficiency of Egyptian material and the inappropriateness of AMA's material. The resulting process of curriculum development from scratch has been further inhibited by the absence of relevant information to guide course content from the baseline survey which was not carried out. These difficulties have necessarily delayed the finalization of a wide range of suitable training material, which in turn has prevented its widespread dissemination to other training institutions in Egypt until quite recently. The attainment of this dissemination stage after a relatively short period of curriculum development is, however, a considerable achievement. Nevertheless, we would advise that the use of the training modules outside the project should, in general, be limited initially to teachers rather than students.

Development of Training Materials Recommendations

1. High priority should be given to the development of suitable materials for "trainees" both during training and for future reference.

2. Training materials should be tested in a series of management workshops for client and nonclient companies using professional methods of curriculum testing.

3. A short-term curriculum development specialist should be recruited with the purpose of gearing material more closely towards the approach to and content of training envisaged in the project design. Specifically, the terms of reference should be:

a) review the relevance and content of all existing material;

b) establish a plan for curriculum revision;

c) train MDP staff in curriculum planning and development; and

d) initiate the plan for curriculum revision.

4. A dialogue with AUC and other management training institutions on curriculum development should be set up.

5. Staff Development

Staff development at MDP has taken in a number of different forms, namely:

- orientation of senior professional staff in the U.S. towards the MDP project;
- Specialized training in U.S.
- participation of senior professional staff and research assistant in task force visits to the U.S.;
- in-house seminars where U.S. and Egyptian staff have made presentations in their fields of expertise to other professional staff;
- training seminars given by Egyptian external resources;
- company progress reports given by client service managers at the weekly staff meetings; and
- the occasional rotation of company consulting teams.

It is clear, therefore, that there is a recognition of the importance of staff development within MDP. However, staff development has proceeded in an ad hoc fashion and, for professional staff, has focused upon the requirements of the project. At the present time, there is no evidence of any long-term planning

geared towards the individual needs of senior professional staff, although there are short-term plans for improving the skills of MDP research assistants. The relative lack of formal planning may be partly due to the uncertainty regarding the future of MDP in Egypt and partly to the feeling among management that substantial staff development has already been accomplished.

The current perception of staff development activities among Egyptian senior staff whom we have interviewed is that it is not entirely adequate as consultants are largely expected to acquire knowledge on the job, while the research assistants are given more formal guidance in specialized skills. Moreover it was felt that there has been no formal team building process at MDP.

Our assessment is that staff development to date has concentrated too much on junior staff, whose length of tenure is more uncertain and has not been tailored sufficiently to the individual needs of consultants, particularly those of senior staff. Finally, in our view, the development of staff competence through informal sharing of client experiences and difficulties on a continuous basis has been inadequately explored. The company presentations at the weekly staff meetings represent a useful but formal approach to this information exchange.

Staff Development and Recommendations

1. A six-month staff development plan should be prepared, which takes account of recommendations 2-7.

2. More emphasis should be placed on Egyptian consultants rather than research assistants, although consideration should be given to sending junior professional staff on an intensive productivity and management-focused training visit to the U.S.

3. Staff development should be geared towards individual needs, in specialist areas of business/financial management.

4. More external resources for staff training sessions should be used which many also have the effect of reducing the dependence upon these resources in client company interventions.

5. In the long term, CSMs should be given experience in a wide range of industries as services to client firms are extended.

6. More attention should be paid to improving "data collection" skills among some staff using a variety of different methods: use of existing company reports, interviews, observation, and special data collection.

IV. ISSUES

This chapter addresses several issues which Coopers & Lybrand believes to be important to understanding the MDP project and in improving its performance in the future. These issues are: evaluation of quantified benefits derived from MDP interventions; fee policy analysis; validity of MDP project assumptions; and baseline survey.

A. EVALUATION OF QUANTIFIED BENEFITS DERIVED FROM MDP INTERVENTIONS

1. Summary

In reviewing the benefits quantified for the MDP Project interventions, the following factors were considered:

- o the reasonableness of the estimating methodology employed;
- o the likelihood that a causal relationship exists between the specific intervention and the measured benefit;
- o the degree of actual or potential implementation of the actions necessary to produce the projected/estimated benefit; and
- o lack of sufficient tracking or verification by MDP of actual goal or benefit achievement.

Based on a review of these factors, Coopers & Lybrand has concluded that the quantified benefits cannot and should not be used as a criteria for an overall evaluation of the MDP Project results, since there is limited correspondence between the benefits as quantified by MDP and the achieved and potential overall benefits of the Project. Therefore, we have concluded

that it is impossible to estimate a meaningful overall rate of return on the MDP project investment to date.

2. Causal Relationship between MDP Intervention and Monetized Benefit

The requirement that MDP monetize benefits has frequently led to the selection of a measure that is an inappropriate reflection of the planned or actual improvements undertaken at the company. For example, in several cases, MDP interventions have focused on increasing output capacity through reductions in machine down time or by improving production line processes. The benefits from these action plans have typically been quantified as projected increases in company sales. However, although increased production capacity may be a necessary condition for increased company sales, it is not a sufficient condition. Numerous other factors affect a company's sales, including availability of raw materials marketing strategy and capabilities consumer preferences and local/national market demand, and, particularly for export-oriented firms, world economic conditions.

In other cases, the benefit monetized by MDP is only an indirect or ancillary effect of the principal objective of the implementation phase intervention and cannot capture the full effect. For example, the Phase III objectives set for the company were the implementation of a market and product diversification plan and the design and installation of a microcomputer-based management information system (MIS). This firm, according to MDP, faces current and anticipated stagnant market demand conditions for its principal product and underutilization of productive capacity within its industry. An implementable product and market diversification plan may be a key variable in determining the future health of the company, although the benefit is definitely not quantifiable.

The second part of the MDP intervention, the design and implementation of a microcomputer-based MIS, could also have

significant future benefits for the company, including better cash management through tracking of accounts receivable and payables, improved raw materials and finished goods inventory records, enhanced cost and sales analysis ability, etc. The total potential benefit of this system to the company cannot be measured and will be dependent not only on the quality of the system as designed, but also on the skills and awareness of the company's managerial personnel. However, in collecting the data necessary for the MIS, the MDP CSM noted a possible opportunity for improving the cash flow to the company. This was the only potential benefit that was monetized.

3. The Reasonableness of the Estimating Methodology Employed The methodology utilized by MDP in estimating the benefits derived from the various interventions is typically "back of the envelope" calculations. In some case, these methods are adequate, but in others there are serious deficiencies.

In one case, MDP had estimated the potential benefit from installing a preventive maintenance system at the company. MDP projected that, if implemented, the maintenance system would double the life of the existing equipment. The benefit was calculated as the difference in annual depreciation, assuming that the maintenance management system would double the expected useful life of the equipment. Questions of the probability of doubling the useful life of the equipment aside, this estimating methodology is conceptually unsound for both accounting and economic considerations.

From an accounting viewpoint, an extension of the expected life of a plant would typically not trigger a change in the depreciation method. Rather, the company would have the benefit, should the useful life of the machine extend beyond the point at which it is fully depreciated, reflected in its income, since depreciation expense would no longer be charged against current revenue. From an economic and management decision-making viewpoint, the potential benefit from installing a maintenance

management system should be calculated as the difference, in present value terms, between the cost of replacing the equipment at the end of its expected life without the preventative maintenance system and the sum of the cost of maintaining the machine and the cost of replacing the machine at the end of its extended useful life.

Since the data necessary to calculate the benefit in this manner is not available to Coopers & Lybrand, it was not possible to compare the results of this methodology with the results of the MDP approach. It is important to note, however, that there is no reason to expect that the estimates derived from the two methods would be consistent.

Another example of improperly applied estimation methodology by MDP is the calculation of benefits from improved collection procedures. MDP has projected a potential benefit to a company from a program of intensive collection efforts as the monetary value of payments collected on outstanding accounts in this case. MDP has confused the goal set for the effort, i.e., the collection of a certain percentage of accounts receivable with the actual benefit. The latter is a strengthened cash position and the savings in carrying costs associated with the liquidated accounts receivable.

In still another case, MDP attempted to monetize the benefit from installing a spare-parts system and a production plan at a company's new plant which is still in its trial-run period. Since the plant's technology was new to the company, its management had requested the equipment manufacturer to supply it with 10% of the equipment's total value in spare parts, or LE2.5 million. Despite the lack of a record of spare-parts usage given the lack of an operating history at the plant and, therefore, no indication of the adequacy or inadequacy of the current spare-parts inventory, MDP calculated the monetary benefit as an arbitrary 10% of the plant's spare-parts inventory.

In estimating the monetary benefit from the development of a production plan for the plant, MDP needed to use arbitrary

assumptions. As noted earlier, the plant is still in its trial-run phase and is currently operating at 30-40% of capacity, although, originally, the trial-run period was scheduled to end in June 1984. In recognition of their problems in bringing the plant to mature operating capacity, the company has contracted with an outside firm to train the plant's personnel in the relevant technology. This training will take place during the first six months of 1985. In estimating the benefit to be derived from the MDP-designed production plan, MDP staff assumed that the plant would operate at 70% of capacity, in the absence of the production plan, once the workers at the plant were trained in the application of the technology. MDP then proceeded to estimate that the MDP production plan would increase production output by an additional 5-10%.

The problem here is twofold. The estimate of the monetary benefit is based on conjecture at this point. Furthermore, the benefit given the fact that both the training of the workers in the technology of the plant and the introduction of the production plan are occurring simultaneously, and it will be impossible to separate the individual effects.

Thus, while it is reasonable to presume that the company will derive considerable benefit from a spare-parts tracking system and a production plan, attempts to quantify the benefit provide limited usable information.

4. The Degree of Actual or Potential Implementation

The question of the degree of actual or potential implementation presents another significant problem for using the benefits estimated by MDP for evaluation or benefit/cost analysis purposes. In general, these problems include:

- no indication of timing or cash flow implications;

- calculation of the overall benefit for achieving a goal without indication of the benefit derived from the individual subgoals; and

- calculation of long-term goal without indication of intervening short-term goals.

5. Tracking or Verification of Goal or Benefit Achievement

MDP has not been able to verify or track many of the actual results of its interventions for a number of reasons including:

- cessation of activities at the company before full implementation was achieved or because company chairman decided to implement plan on own; and

- unwillingness of company personnel to provide follow up data.

Probably the most important and problematic reason is that it is still too early in the implementation stage for a number of its interventions to expect that quantified monetized and targets have been achieved.

6. Conclusions and Recommendations

The pressure on MDP to monetize benefits has created a significant amount of misunderstanding. In an effort to satisfy this requirement, monetary estimates have been calculated that cannot be considered reflective, in any sense, of the achievements or disappointments of the project to date. Furthermore, the absence of a cost accounting system renders it impossible for MDP to evaluate the level of cost being incurred by client or function and to reallocate resources as necessary to meet project objectives.

Therefore, we recommend that a tracking mechanism suitable to both overall project objectives and individual client interventions be developed that takes into account the need to be:

- Reflective of the type of benefit(s) that can be causally linked to the type of intervention(s) taken at the client company;

- Calculated using methodologies that are based on sound accounting, economic, and managerial principles, where monetary or other quantifiable benefits may be correctly attributed to the intervention; and

- Verifiable in either a qualitative or quantitative sense. MDP should also move to put a sound cost accounting system in place as soon as practical.

B. FEE POLICY ANALYSIS

MDP has set upper and lower fees limited for the entire PI cycle for client companies. In practice, it has only been possible to charge fees within these limited to the public sector; private sector companies, which tend to be smaller in terms of revenue generation, assets, and employment have been reluctant to pay fees within the range established. MDP has been flexible in signing contracts with private firms to perform work for less than the lower fee limit, and we believe that this is an acceptable practice given the constraints under which MDP has operated. IESC has a similar practice.

However, the fees charged within this established range bear no relation to MDP costs and, in general, are heavily subsidized. Fees have been subsidized initially because MDP is an AID-financed project. Currently, project management is developing a fee policy and pricing structure which will related fees charged more closely to the costs incurred in performing specific interventions. This would permit management more discretion to charge higher fees, which, in turn, would increase the probability of MDP surviving as a viable commercial consulting operation.

There are two constraints to removing the subsidy element in fees:

(i) MDP has high visibility as a foreign aid project, which makes companies reluctant to pay fees; and

(ii) Company chairmen in the private sector are frequently "risk averse" because the fees charged are tangible, whereas the potential benefits, however large, are uncertain.

These attitudes will inhibit the growth of demand for management consulting services as a commercial operation. They can, however, be broken down through a marketing strategy which:

(i) can demonstrate high success rates using client case studies; and
(ii) sells MDP as an Egyptian project supported by American technical assistance personnel.

Recommendations

1. MDP should be allowed more discretion in charging fees, but these should be related more closely to cost. Cost should segment out "developmental" costs such as task force visits, promotion, training materials and staff development. There should be a time frame established over which the element of subsidy is gradually eliminated and this should be closely geared to marketing success.

2. With more latitude to charge higher fees, MDP should not lose sight of the fact that it is a training as well as a consulting operation. It should, therefore, take care not to implement too much additional work, simply because higher fees can be charged, when it may be more appropriate to encourage trained managers to solve these additional problems themselves.

C. VALIDITY OF MDP PROJECT ASSUMPTIONS

An important aspect of the evaluation of MDP centers upon the appropriateness of the assumptions around which the project was designed. The validity of these assumptions was reviewed at all four project levels (Goal, Purpose, Output, Input) to assess their impact on design and implementation. In general, we found that the assumptions upon which the design was based were valid. However, some significant assumptions limited project effectiveness: i.e., the Advisory Committee did not fulfill its functions as intended; the design assumed less turnover in top management, which proved invalid; and the necessary support of GOE and the business community either did not exist or was not effectively nurtured. Our discussion of these assumptions follows.

1. Goal

Increased industrial organization effectiveness particularly in the form of increased productivity.

The relationship between this project and others in the USAID portfolio is complementary, not competitive, both in principle and in practice.

- Based on the design of MDP in relation to other USAID projects, this assumption holds true. However, in practice, the approach used by contractors (MDP and ITAP mainly and, to an extent, IESC) has evolved to a point where in some cases services offered to clients are duplicative and competitive in nature. The main reasons for this situation are the absence of a strategic rationale of project activities and the absence of a coordinating element which should have been introduced at the beginning of these projects. In addition, the excessive focus on numerical targets to measure success may have also fostered a competitive climate.

Liberalization policy continues.

- The open-door policy has continued even in the face of change in government administration.

Investment in these sectors continues.

- Investments in the industrial sector have continued.

2. Purpose

a. Improve management in selected public and private sector business organizations.

b. Increased supply of, and demand for, effective management development sources.

Performance improvement is possible through changes within control of management.

- Even in the presence of constraining external variables, the project has demonstrated that performance improvement through changes within control of management is possible when management chooses to do so.

Significant results are obtained from the training/organization development intervention.

- This held true but the value of the results should also be judged by the nature of the intervention. For example, improvements which arose from the solution of a particular problem through direct intervention by the contractors, yet left no capacity to problem solve in the future do not meet the expectations of the MDP project. It would appear that the project should develop approaches to encourage the longevity of the action groups.

Managers participating apply what they learn.

- Assumption was valid particularly with companies who reached Phase III. In other companies, managers applied learning from action planning workshop.

Top management wants performance to be improved.

- This proved to be one of the most important assumptions for project success. The identification and successful contact with chairmen with this characteristic is essential for the success of MDP in the future.

There is relative stability in management of involved firms.

- In general, there has been stability, at least during the time of PI cycle intervention. Where there were changes in management during the PI cycle, this negatively affected the project. Rotation of chairmen could, however, be viewed as a positive element if MDP could follow these chairmen to new companies.

Existing communication channels/media are appropriate.

- Generally, this is true, but personal contact must be encouraged (e.g., small lunches, social events).

Egyptian project staff and/or other qualified specialists will respond to demand for these services by providing them after the project period, doing so as individuals or through new or existing organizations.

- It is too early to determine this, but it appears that there will be qualified specialists available as the result of the project.

3. Outputs

Egyptians are accepted by local management as trainers/consultants.

- Yes, but foreign experts are helpful for image of project as source of foreign technology/information.

Industrial organizations are willing to cooperate in develoment of training materials.

- This appears to be valid for case studies.

U.S. and Egyptian contractors have case and simulation development capability or can obtain it.

- Apparently, they have not exercised their capability to develop or acquire simulations.

Egyptian and U. S. project staff turnover is relatively low.

- U.S. project staff turnover was considerable at the beginning of the project. The Egyptian staff had high turnover rates throughout the first two years of the project.

There is U.S. management technology that is appropriate and can be adapted and transferred to Egyptian applications effectively.

- Yes, but it appears that more could be done in this area.

Managers selected will be "key" managers chosen for ability to learn and to influence company performance.

- Usually, yes.

U.S. staff is able and willing to adapt U.S. management technology.

- Yes.

4. Inputs

GOE and business community representatives (JBC, ministries, GOFI, Investment Authority, and others) support the project.

- Not everybody supported the project. Many did not understand the project, while others saw it as competing with their own functions and areas of influence. MDP was not successful in rallying these representatives behind the same objective. Some freedom to deal directly with key Egyptians in government should be granted to the Contractor.

There are public and private sector firms willing to participate in the project.

- There were companies willing to participate, but the AdCom did not generate a critical mass of companies to ensure a sufficient number of early participation. In addition, early market efforts by the contractor may have been inhibited by staff turnover and other internal issues.

Information for diagnostic studies exists and will be made available.

- Information did not exist in some cases while in others it was inadequate. However, in companies where top management supports MDP, information was less of a

problem. In other situations, MDP reconstructed data using observation and other techniques.

Key managers in participating firms will make available time needed for training and consultancy.

- In the most part, this proved true, but difficulties did arise as to the specific time when managers could meet, which resulted in large elapsed time between sessions.

U.S. firms are willing to cooperate for study visits to the U.S.

- It appears that it holds true, but more are "tour" oriented than "study."

Communication media in Egypt are willing to cooperate in promotion of management training and organization development.

- Willingness is a function of MDP's ability and willingness to pay for the service it requests.

Egyptians with training/consulting skills are available and willing to join the project.

- There are Egyptians with training/consulting skills available. Their willingness to join the project depended on the benefit they perceived would be obtained.

The management training/consulting community in Egypt supports the project.

- At the personal level, they support the project if they can participate in it. At the institutional level, they may regard the project as a subsidized competitor.

Firms in Egypt will be willing to pay for such services at rates that make providing them financially rewarding.

- This depends on the firm. Some of them will be willing. Some others want, even if they are convinced that participating in MDP could be beneficial.

Appropriate training facilities can be found and made available.

- Westinghouse reports no difficulty in obtaining training facilities.

D. BASELINE SURVEY

(The reader is referred to Chapter III, Section A.) The views of MDP staff regarding the major purpose of the baseline survey differ significantly. From our interviews, we have been able to ascertain three main purposes, namely:

a) to serve as an assessment of client needs;

b) to develop training materials relevant to the management problems of Egyptian industry; and

c) to serve as a control population to evaluate the impact of the project at some later date.

These purposes are not mutually exclusive. Nevertheless, the difference in opinion reflects different perceptions of the true value of the baseline survey. In our view, the first two purposes are the most important ones because the baseline survey would then be used to strengthen and support company-level interventions, specifically problem diagnosis and the provision of relevant training. In this respect, the results of the baseline survey, which has only recently been carried out, will serve no

useful purpose. Certainly, the design of the survey did not have these purposes in mind, and it is difficult, therefore, to see how the results can provide any useful information to assist curriculum redesign.

The third possible purpose of the survey is questionable. It is in practice always difficult to ensure that a control population resembles in all important characteristics of the project participants. In our view, there is an alternative evaluation design which is more appropriate for this project, namely, to take two measurements before and after the intervention for each participating company. However, in measuring management attitudes and practices, which either may change very slowly or revert back easily to traditional practices, it would be necessary to take the after measurement some time beyond the completion of the original project intervention.

In conclusion, the conduct of the baseline survey now serves no useful function in relation to these three purposes and, therefore, would be best discarded as a project output unless it is of use as research for the academic community. Moreover, in the report on the preliminary findings, it is not stated how the results were intended to be used. Certainly, if the survey had been conducted at an early stage in the project's lifetime, it would have had a beneficial effect on the development of training materials, and it may also have influenced the strategies for conducting client company diagnoses. We also feel that the decision to conduct the baseline survey at a time when its usefulness was perceived to be minimal has had a negative effect on the quality of the survey design and the reliability of the results.

NOTES FOR OUTPUT ANALYSES

Chart on Page 16a

1) Numbers in this column include targets for Phase I and Phase II. All other entries refer only to Phase I.

2) W/H proposal does not specify a breakdown between public and private companies.

3) This refers to one target industry survey to be carried out during the start-up period prior to first PI cycle. However it is implicit that surveys will be carried out for all target industries.

4) Proposal indicates that at least 20 articles or media presentations will be carried out each year, one 1-day top management seminar and semi-annual symposium presentations to academic community.

5) Refers to Egyptian cases that have been tested.

6) Scope of work indicates at least 10-12 management, MDP or related articles; features on other media; miniseminars and guest lectures and shall systematically share and test with the academic community the materials developed.

7) Pilot company.

8) Indicates number of companies that, at the time, were participating in one of the PI phases, as well as those who had completed their contracts.

9) One-day conference on productivity for general audience.

10) After the first year of the project, the PI cycle term is used as a synonym with company intervention, therefore

each company represents one cycle.

11) Refers to visits to U.S. by Egyptian professional members of the MDP staff.

12) Workshop completed. At the time MDP had 11 other workshops in process.

13) Two receptions and two newspaper advertisements.

14) Five of these companies had completed their participation in MDP but none of them had gone through Phase III. In addition, three other companies had not initiated Phase I.

15) Of these 26 companies, 21 were public sector and five were private sector companies.

16) The breakdown by sector was the following:

Sector	No. of Companies
Textiles	8
Food Processing	8
Metal	5
Construction	2
Tourism	1
Pilot	2

17) Six of these companies had completed their participation in MDP. However, the information available does not allow to determine if these companies completed the three phases of the PI cycle or if they withdrew at the end of Phase I or II.

18) Of these 27 companies, 21 were public sector and six were

private sector companies.

19) Nine of these companies had completed their participation in MDP.

20) Of these 31 companies, 22 were public sector and 9 were private sector companies.

21) Quarterly newsletter. However, there are a substantial number of other articles that were published separately and distributed to a general audience.

22) This number represents company interventions, rather than companies, to account for those companies who have participated in more than one PI cycle.