DPMC

"A MULTI-FACETED ACTION-TRAINING APPROACH
FOR IMPROVING PROJECT MANAGEMENT:
THE NATIONAL PLANNING PROJECT IN JAMAICA

By Dr. Merlyn Kettering

An international cooperation and resource center established to support the development of effective systems and training for project design and management in developing countries.

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I. Introduction

A. The Development Problem

In the mid-1970's, Jamaica faced the need to attract and mobilize capital as a critical contribution to its development program. Government was expanding its own investment and management initiatives, but private capital investment had reduced significantly. The limited flow of foreign exchange was severely restricting activities in both the private and public sector. Inability to finance imports for raw materials and basic commodities would contribute to higher levels of unemployment and dissatisfaction. New infusions of foreign exchange were required to stop and reverse the cumulative cycle of economic deterioration. There was also the need for visible demonstrations of government's capability to deliver promised benefits through a dynamic performance in its expanded role in the economy. Without successful projects, the political base of the government as well as the financial base was threatened.

To address the immediate problem of obtaining substantial foreign loans to support its expanded role and to meet capital demands, the government sought project proposals that were acceptable for financing. Donors and lenders said there were substantial amounts of funds available if Jamaica could prepare projects that were "worthy" of financing. The National Planning Project was intended to specifically improve Jamaica's performance in the planning and management of internationally financed development projects. A basic premise of the early thinking was that properly presented projects would win donor/lender approval and ensure an inflow of foreign exchange. These projects would also generate foreign exchange when implemented and would produce immediate and visible benefits to meet the financial and political demands that were becoming so urgent.

B. Background of the Management Improvement Effort

The Projects Division of the Ministry of Finance had major responsibility for maintaining liaison with donor/lender agencies for government loan projects. A policy decision had been taken in the early 1970's to emphasize decentralization of government functions. As a result, it was decided that the Projects Division's role was to facilitate the formulation of projects, to analyze and appraise projects, and to act as an intermediary with lending agencies, but not to actually prepare projects. Projects were to be formulated, sponsored and implemented by

functional Ministries, such as Agriculture, Works, Education, Health, Housing, etc. As a further distinction of responsibility, the Projects Division was responsible to facilitate only government projects based on loans. Grant projects were handled by the National Planning Agency. Because of these policies, the Division had a small staff which focussed primarily upon the financial and economic analysis of projects submitted to international agencies for loan financing and the coordination of project formulation and approval.

The Director of the Projects Division, Permanent Secretary, in the Ministry of Finance, held discussions with the USAID Mission Director regarding a project management improvement project. The Director wanted at least two American planning experts to work in the Projects Division. In association with his Jamaican staff, and with officials from functional Ministries, these persons would be responsible to assist with the preparation of projects for submission to donor/lender agencies. The American advisors were seen as supplemental personnel in the seriously understaffed Projects Division and were to give also technical advice to the operating ministries. Recruitment of qualified Jamaicans for the Division had been difficult, partly because of the exodus of professionals,, but, also, due to Civil Service regulations restricting salaries and types of professionals who could be recruited to positions under the existing structures. Therefore, the Director turned to several lending agencies already sponsoring projects in Jamaica to meet his personnel gap. The technical assistance personnel were to become directly involved in the functions and responsibilities of the Division, especially project design and documentation for loan and grant projects.

C. History of Project Formulation

After initiation of the request by the Director of the Projects Division, the USAID Mission, in collaboration with the Director, wrote a project proposal and submitted a PID which received AID/W approval. The PID followed the general outlines of the request for two American advisors to work with Projects Division staff in the design of projects for submission to donor/lender agencies. The project objective was to improve project performance. Accomplishment would be demonstrated by the movement of approved and implemented projects to achieve the overall goal of increasing the flow of foreign exchange assistance into the economy.

D. Complementary Technical Assistance

Project design assistance was requested by the Mission. DSB/RAD forwarded the request to the Development Project Management Center (DPMC) which had been recently created to help improve project management capabilities in AID host countries. In the Spring of 1976, DPMC sent a team to help write a Project Paper for an AID-Jamaica Project. The design team consisted of Morris J. Solomon and Edward E. Rizzo. They worked primarily with the Director of the Projects Division to determine project design. Jointly it was decided that the project goals could be expanded to meet the objectives even more effectively. The expanded goals were:

(1) to create a Jamaican capability to train and consult on planning, appraising and implementing projects;

(2) to train a large number of Jamaicans in project planning and management; and

(3) to create a stream of successfully implemented projects.

With this expansion of objectives, the roles of the American technical experts were also changed. The narrow work scopes as project design officers were broadened to incorporate the institutionalization of an action-oriented training and consultancy team in the Projects Division. The advisors would promote project development and management by introducing "action-training" methods and approaches to simultaneously move projects and train project officers.

Based upon the agreement of the Director of the Projects Division to the main outlines and revised goals, the American design team of DPMC took primary responsibility for preparation of project documentation. Unfortunately, the Director left for Washington, D.C. at a critical time and designated subordinates were not able to fully participate in design formulation. Despite persistent attempts by the American design team, it was not possible to get meaningful participation of the functional Ministries who were to form an Advisory and Steering committee for the project. In response to time constraints for USAID presentation and the urgency stressed by the Projects Division, the Project Paper was completed by the consultants within a four week period. Upon submission, it received almost immediately the appropriate approvals from both USAID and the Government of Jamaica, and the Project Agreement was signed.

In conjunction with the objectives of improving project performance, the IDB was also approached to help the Projects Division through supplementary staff. The IDB agreed to provide two advisors for one year to assist in the establishment of a revolving fund for project pre-investment planning and in the design of improved project management systems. There was collaboration on the project designs to encourage suitable liaison between the work of the IDB and AID advisors.

II. Management Improvement Results

A. Intended Results

The intended result of the National Planning Project was an increased flow of development projects. More projects would be submitted for consideration; better project proposals would be forwarded to donor/lender agencies; more projects would receive funding; project implementation would be faster. The focus was upon projects with foreign loan financing, so the flow of foreign exchange into the government budget and the economy would be facilitated. In addition, the projects would deliver promised benefits as a visible fulfillment of government promises for development.

The project would be judged successful if there was an increased number of funded projects from international loan sources and if there was an increased flow of projects through all stages of the project pipeline. Because of the mandate of the Projects Division, the primary concern was with project formulation, approval and loan negotiation. However, the need for improved implementation performances was also recognized. It was expected that the flow of projects initiated through this effort would be perpetuated through institutionalized planning, management and training capabilities.

B. Evidence of Results

The most obvious quantitative indication of project results is the Project Inventory. The number of projects submitted for loan consideration also increased significantly. Over the life of the project (1976-1980), the number of approved projects in the Project Inventory of the Projects Division increased from approximately 40 to over 100 loan projects which are at various stages of planning and implementation. The actual impact, however, should encompass all types of government projects, not just those receiving foreign loan financing. Domestically financed and smaller projects were raised to a level of national priority during

1977 and 1978 through Emergency Production Plans and Cooperative Enterprise Project Development. These government efforts clearly benefited from the National Planning Project. A simple planning document, the Project Profile, designed by PDRT facilitated the flow of ideas to government. This Project Profile was used, also, to move projects quickly in response to Emergency Planning following flooding in 1979. The management improvement effort of the National Planning Project obviously had impact beyond large government loan projects as evidenced by its influence on project planning and management improvement in other areas, such as small enterprise, cooperatives domestically-financed and emergency relief projects.

C. Factors Influencing Accomplishment of Results

The primary factor which influenced accomplishments of results is that the project management improvement technology designed into the project has immediate and direct project results. Project management performance is rapidly improved because "live" projects are an integral part of the technology. Project planning and management is improved through "action-training" with actual project teams, working in their real organizational context. Team members are given the relevant knowledge and skills to carry out their assignments on live projects within specific terms of reference. "Action-training" involves a concerted organization development effort to strengthen project management support systems in the organizational environment. By supporting projects and project management systems, action-training can be sharply focussed to solve organizational problems and meet actual and immediate project needs for skills and knowledge relevant to performance on live projects as the projects are moved forward. The working/learning environment created by action-training promotes high degrees of relevance, reality, and responsibility which strongly motivates participants. Through project teams, linkages are created within and between organizations to facilitate project and organization development and to improve overall management effectiveness. The technology permits a comprehensive, but flexible, approach to implementation which methodologically and operationally addresses specifically identified problems affecting overall performance on projects.

The achievement of results was naturally strongly affected by factors external to the technology. These can be summarized as the perseverance of traditional approaches in project management, the Civil Service structures, commitment of key

environmental actors, and the socio-economic context. The project did not begin in a vacuum. Government structures and personnel had experience in moving projects. Much of the power and influence in decision-making had been personalized, but had proven effective in some ways. Traditional power structures had to be carefully reviewed and evaluated before revised systems could be institutionalized. The project effort required organizational development interventions as well as early demonstrable evidence of the value of the proposed revised approaches.

Civil Service structures strongly affected the project effort. Institutionalization of the training-consulting unit was delayed because a team could not be recruited and appointed under existing arrangements in the Ministry of Finance. In 1979, a Ministry Paper resulted in the creation of a statutory body (PAMCO)* with specific responsibilities for projects and the introduction and integration of project planning and monitoring systems to finally resolve many of the issues regarding institutionalization and systems development. Also, within the bureaucratic context, the normal incentive systems were not promoting productive project performance. Some adaptations were made, for example, it was decided to permit topping of salaries for personnel temporarily assigned to internationally financed projects to resolve some project staffing problems. Monitoring and reporting systems were revised to meet project needs. Decision-making structures and feedback systems were installed to support project and organizational performance. Care must be taken, however, in adjusting bureaucratic structures to meet project needs because the revisions may have unintended dysfunctional impacts throughout the system despite the positive immediate impacts on projects.

The commitment of key actors in the project management environment is critical for achieving project results. There were four Directors of the Projects Division over the project, each with a different set of primary objectives and different understandings of the value and role of this new unit. The commitment of the political directorate was mixed also. Politicians often sought immediate results of improved performance on specific projects, but resisted the discipline implicit in the systems and frameworks for planning, analysis and management as well as the shared decision-making patterns. The cooperation of donor/lender agencies also

* The Project Analysis and Monitoring Company, an agency of the Ministry of Finance and Planning.

varied as each was accustomed to its own established modes of operation with respect to sequencing of planning documents and decisions. They had to be convinced to coordinate with the Jamaican system, for example, to seek approval through the government system rather than depending solely on the interest of the sponsoring sector or Ministry.

Finally, the socio-economic setting played a great role in project accomplishments. The movement toward self-reliance led to an emphasis on smaller projects for which financing was domestically determined and controlled. Within the context of a declining economic performance, alternative ideological preferences, and shifting developmental thrusts, there were definite changes in the nature and management of national projects. Impact indicators for the National Planning Project had to be reinterpreted within this changing context. An implicit characteristic of this technology is that it is so meshed with its environment that it can be easily adapted to the immediate context while maintaining basic performance standards adequate to establish relevance and credibility by actual and immediate project outputs.

III. Management Improvement Technology

A. An Overview of the Technology

The management improvement technology of the National Planning Project basically has three components:

(1) the use of an "action-training" approach which is characterized by an emphasis on in-country, on-the-spot training of teams actually assigned to "live" priority projects;

(2) the creation of a national training and consulting team to facilitate the development of projects and the strengthening of national capabilities in project planning and management; and

(3) the institutionalization of project management systems for unifying and clarifying the mass of procedures, methods, responsibilities and possible actions required to move projects through various stages of development.

As applied in the National Planning Project/Jamaica, this was a unique and innovative application of this project management improvement technology. It is the first time that all three components of the technology were combined for an in-

country long-term project. Because of this, there was a great deal of flexibility in the project design, and only the major outlines of the technology were firmly embeded in the project paper. The Project Design Summary is shown in Figure 1, The Logical Framework for the National Planning Project.

B. History of the Development of the Technology

The first known attempt to use actual projects in project analysis was in a six week course given by Morris J. Solomon at the Graduate School of Public and International Affairs of the University of Pittsburgh in 1962 or 1963. The course had a theoretical and analytical phase and a "practical phase." The participants were asked to discuss a related problem in their country and what were some possible approaches to solving the problem. After some discussion, the concept or technique would be introduced in relation to the problem and whether and how suitable it was for their country. Then there were exercises and hypothetical problems which the students had to do, designed to stretch their understanding of the concept and give them practice in using the analytical techniques. In the practical phase, interdisciplinary groups were formed (generally from different countries) to work on a real project that had been brought from various countries. From 1963 through 1965, Solomon directed a series of workshops in Latin America under the auspices of the Organization of American States in Venezuela, Central America, Colombia, and Brazil. It was apparent that having participants relate concepts and techniques to country situations heightened interest in the content of the course. This, together with instructor guidance on group work on an actual project, created a very favorable learning environment. There was a strong tendency for a great deal of peer learning to take place. Each project group member learned something from the different disciplines of his team members. An important result was that participants gained a new appreciation of the relevance of different disciplines for project design and analysis.

The learning that took place in the OAS Workshop was excellent. Follow-up activities of Solomon, however, indicated that many of the participants did not get a chance to apply on the job what they learned. In many cases, their supervisors did not understand the possibilities of using their newly acquired skills. Project design and analysis was unsystematic and highly personal. In some cases, supervisors required their subordinates to use their new skills to dress up pro-

Figure 1: PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY 1976 to FY 1980
Total U.S. Funding $475,000
Date Prepared May 6, 1976

Project Title & Number: NATIONAL PLANNING (INVESTMENT PROGRAMMING - PROJECTS)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal. The broader objective to which this project contributes. Increase the utilization of available development resources.	Measures of Goal Achievement: Increase institutional loans (project) from abroad by minimum of 80% for the period 1977 - 1980 over the base period 1973 - 1976.	Examine Government Budget and the reports of lending institutions.	Assumptions for achieving goal targets 1. Availability of funds and interest of lenders in GOJ projects. 2. Political and economic conditions favorable to development in Jamaica.
Project Purpose. Establish a GOJ capability in project design and management which will: A. Increase the number of Jamaican development projects available for financing by foreign and domestic sources. B. Improve project implementation and reduce project completion time.	Conditions that will indicate purpose has been achieved: End of project status. 1. During period 1977 - 1980, plan 40 or more Ministries Projects, compared to 20 Projects in base period 1973 - 1976. 2. PDRT/Working Teams will design and develop approximately 10 projects per year. 3. Increase the project expenditure rate by 40% during 1977 - 1980 over the base period 1973-1976.	1. Examine Project Plans and Investment Program. 2. Analyze Government reports for Project rate of expenditure.	Assumptions for achieving purpose: 1. GOJ will have sufficient Projects identified and staff to prepare Projects. 2. GOJ maintains current objective for speeding up project implementation and takes necessary supportive actions. 3. Some member(s) of Ministry Working Group (design) will be involved with implementation phase of project.
Outputs: 1. A Jamaican Project Development Resource Team (PDRT) with training and experience. 2. Work Groups in Government Ministries trained in project preparation and implementation. 3. A Jamaican Training Manual for Project Preparation and Execution.	Magnitude of Outputs: 1. A team of 4 officials with 2 or more years of training and consultation experience. 2. Over 180 persons (about 36 Work Groups) trained by end of Project. 3. A Manual containing Teaching Materials on methods covering all project phases.	1. Observation and Project Reports. 2. Examine records of persons trained and Groups formed. 3. Examination of Manual.	Assumptions for achieving outputs 1. PDRT will receive salary level and top-level support adequate to retain them. 2. Ministries will cooperate in sponsoring Groups, selecting Projects and releasing employees for training. Adequate incentives for members of Work Groups. 3. PDRT and Ministries will collaborate in developing Manual (provide data, Case Studies, etc.)
Inputs. 1. AID financing: Technical Assistance $370,000; Commodities $15,000. 2. GOJ financing, staff, logistic support. 3. IDB technical assistance.	Implementation Target (Type and Quantity) 1. AID: $375,000 Grant over 3-year period. 2. GOJ: $175,000 local funds and salaries for Work Groups. 3. IDB: $80,000 for two technicians (GOJ contributing $10,000 of cost).	1. AID: Budget and Fiscal Reports. 2. GOJ: Observation of staff and supporting services provided. Budget and Reports. 3. IDB: Observation of technician services.	Assumptions for providing inputs. 1. AID: Appropriation approved and timely disbursement. Assumes competent advisors can be procured and backstopped. 2. GOJ: Provide number and quality of counterparts required on time. Continue support and financing at proper level. 3. IDB: Provide competent assistance and coordinate with USAID contractors.

posed projects.

In 1966, Solomon was asked by the Organization of American States to introduce the practical phase into the project analysis curriculum of CETREDE in Fortaleza, Brazil. Despite initial skepticism by the staff, Mr. Solomon instituted such a practical phase. The staff was surprised at the response of the participants and the high quality of the projects prepared. The practical phase became an established part of the curriculum. It was extended to the course in project implementation as well. Many of the projects coming out of CETREDE courses have been financed by the Bank of Northeast. At a later point when the Government of Brazil took over CETREDE, they continued this feature in their project management courses.

The use of the practical phase was adopted by the three person University of Public Administration of the University of Ife in 1971-75. Follow-up of participants indicated results similar to those found in the OAS Workshops.

C. Technology Formulation and Design

Action-Training

The key to this project management technology is the "action-training" methodology, an approach characterized by an emphasis on in-country, on-the-spot project management training for persons having actual responsibility for "live" projects. Action-training is tailored to answer the needs of people to solve problems on real project activities. Action-training makes use of their own experience, project activities and problems as focal points for persons to learn project management.

As a form of systematic, action-oriented, in-service training, this methodology by its very nature performs practical functions of project development. In practice, projects used in action-training are selected by the sponsoring agency or ministry and a project work group is assigned to the development of the project. For the planning phase, the project planning team is first given a brief initial training (e.g. 80 hours) during which they begin to plan the project. This is followed by a period of consultations and seminars until an entire project plan is completed. If a project is authorized for implementation, a project implementation team is appointed and receives initial training on implementation (e.g. 80 hours) followed by consultations, workshops and progress reviews. Figure 2 illustrates the project design for action-training.

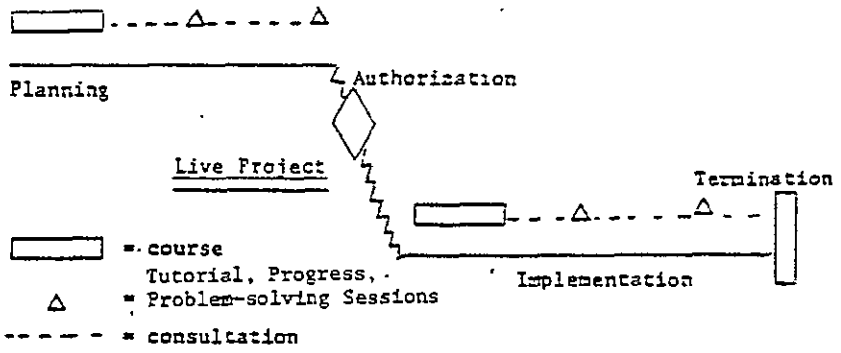


Figure 2 - Action-Training Model

The Project Development Resource Team

Action-training is carried out by a training and consulting team which is experienced and knowledgeable in the planning and management of projects. This team should be:

(1) inter-disciplinary composed of professionals highly qualified in relevant areas such as financial analysis and accounting, engineering, agricultural economics, education, etc.;

(2) assigned fulltime to the work of the PDRT; and

(3) located in a central national ministry (such as the Ministry of Finance) or enjoy close access to such a central national ministry.

In Jamaica, this team was called the Project Development Resource Team (PDRT). This is truly a project development resource team because it gives specific project development assistance through consultation and training. The PDRT helps in the design of projects and project systems. The team trains and consults with clients in support of specific project relevant activities within the existing project systems, such as the use of proper project documentation, application of appraisal criteria, procedures for reviews and decision points, implementation planning, reporting and monitoring responsibilities, and so on.

The PDRT conducts workshops and problem-solving sessions which are carefully planned to respond to the operational needs of project work teams and the sponsoring organizations. The timing and duration of PDRT activities are organized at the

convenience of the operating ministries and agencies. This requires a commitment to flexibility to permit the variation in activities to be really helpful to project teams, i.e., duration, coverage, scope involving varying mixes of training and action, medium and long-term interventions and workshops. All activities are planned and carried out in close collaboration with responsible officials of the project and parent organization.

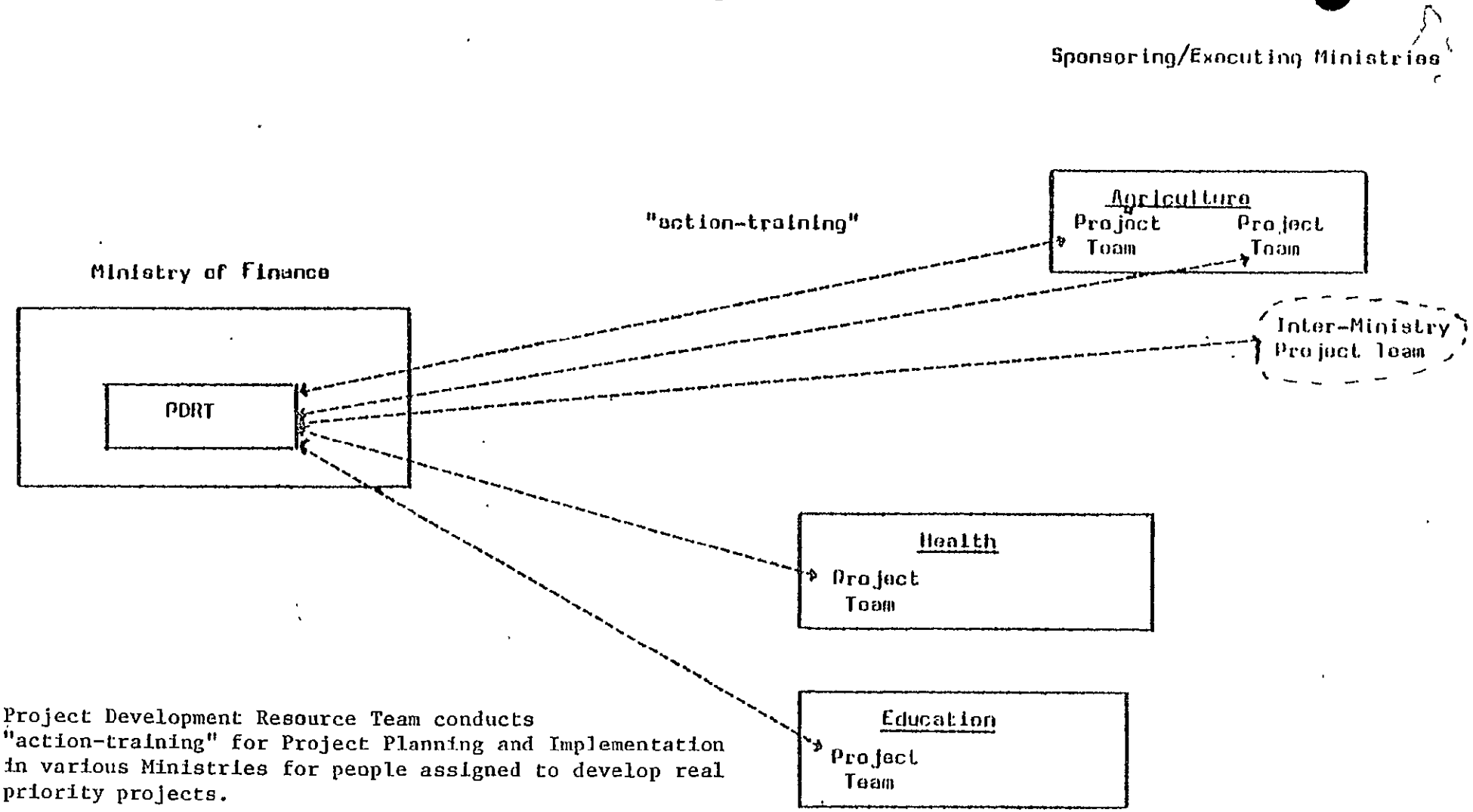
The PDRT service to operational ministries and agencies promotes immediate project progress while building a capacity for future reliance on the indigenous trained project work team. Responsibility for the project is maintained with the sponsoring organization. As part of the project design, foreign advisors can be used to complement host country team members and for additional temporary technical assistance on specific projects on a needed basis. The responsibility for the effort, however, is always with the indigenous organization.

In the National Planning Project, the PDRT was located in the Projects Division of the Ministry of Finance. The PDRT's responsibility was to use action-training to facilitate the development of projects and to upgrade planning and management capabilities in functional ministries and agencies. (See Figure 3)

As illustrated in Figure 3, the relationship of the PDRT with the sponsoring or executing agencies is two-way. The operating agencies are viewed and served as clients by the PDRT. The PDRT must develop an awareness and sensitivity to the ministries. They learn what is needed, what is already known, what resources exist to be mobilized, what is expected of them, and what realistically can be accomplished. The stance of "learner" is critical for all those involved in action-training--the advisors, the PDRT, the project workteam, and the managers of the sponsoring organization.

Project Management Systems

One of the fundamental difficulties of project management is that a project requires temporary, but effective, organization capable of bringing together the numerous policies, decisions and resources that influence implementation. Projects cut across established organizational boundaries and require coordination of diverse and fragmented sets of inputs, information, decisions, staff, procedures and structures from the earliest points of project identification. Project management systems are needed to coordinate and integrate the design, authorization and man-



Project Development Resource Team conducts "action-training" for Project Planning and Implementation in various Ministries for people assigned to develop real priority projects.

* PAMCO (Project Analysis and Monitoring Company) was formerly the Projects Division of the Ministry of Finance

Figure 3: : The Training-Consultation Team and Project Work Groups

agement of projects from their conception through implementation into routine operations. Project management systems also lay foundations for participation which builds commitment to the purposes and design of the project, incorporates diverse knowledge and perceptions, and ensures that projects reflect the realities of their environment.

A comprehensive project management system is a unified process to coordinate and integrate all activities of planning, decision-making and management from project conception through implementation. Institutionalized systems clarify and define the mass of procedures, methods and possible actions required to move projects through particular stages of development. A comprehensive system is composed of distinct subsystems dealing with those specific activities related to identification, planning, appraisal, design, selection, approval, authorization, activation, implementation, control, termination and/or evaluation. Decision-making, procedures, formats, worksheets, criteria, responsibilities, and reviews are well defined to facilitate the movement of projects along a similar path within a consistently applied framework. Indigenous project management systems create the climate for collaboration and cooperation for host country organizations as well as donor/lending agencies and facilitate an environment of mutual understanding, appreciation and accomplishment so that appropriate organizations can work together. Common frameworks, language, criteria and processes eliminate much of the ad hoc fragmented nature of project development and implementation. Project management systems provide the foundation for and create an environment in which the other components of the technology--action-training and the training-consultancy team--can be effectively applied.

D. Technology Application

The PDRT was responsible to:

(1) increase project planning, implementation and management capabilities throughout government, especially at the implementing levels, to support policies of government development and decentralization;

(2) utilize "action-training" so that all training results in direct and immediate project development; and

(3) to become an institutionalized indigenous unit capable of carrying on training and consultation for future development of Jamaican capabilities in project management.

The National Planning Project was activated when the PDRT was formed in November 1976, with the arrival of two American advisors (an engineer and a project economist/trainer) to join two Jamaican team members (systems analyst and financial analyst). The PDRT was to accelerate the movement of projects through planning an implementation stages by training and consulting with project work teams.

Because new projects in agriculture were urgently required by the government, priority was initially given to the Ministry of Agriculture. Also, the initial emphasis was on planning and appraisal of new projects to attract foreign exchange. As new projects were developed and approved and bottlenecks in implementation became evident, action-training was shifted to include implementation and management. It was also expanded to health, education and other sectors as systems and the capacity for projects were developed for agriculture.

Projects are models of causation, designed to produce desired change. They are based on sets of hypotheses and assumptions about how the world is, how it acts and how it can be changed. Most development projects have more uncertainty than is implied in the written designs. This tends to be particularly true of institution-building and organization change projects. Uncertainty and ignorance about the project environment and operational factors of causation combine to produce circumstances throughout implementation which require substantial modification of original project plans. Fortunately, the project design and management of the National Planning Projects permitted a great deal of flexibility, experimentation and autonomy of implementation so that modifications could be made to meet the demands of the operational situations and environment.

Major modifications in the original plans of the National Planning Project included the following:

1. Building of a Project Planning System,
2. Institutionalization of Project Management Systems,
3. Introduction of Standard Project Documents, e.g., The Project Profile, as part of the Project system,
4. Diversification of Training For Different Roles in Project Planning, Implementation Planning and Management,
5. Diversification of Training Interventions For Different Situations, and
6. Broadened Concept of the PDRT Training Role.

1. Building a Project Planning System

The PDRT designed project management training to serve the decision makers by introducing a coordinated system for project identification, appraisal, planning and approval to which the training could relate. Intensive study and discussions with Jamaican officials resulted in the designing of a Jamaican Project System and the subsequent adoption of this system by the Jamaican Government. The project planning system has evolved into a definite form after considerable experience with actual projects over the past three years. The system involves the development of standardized formats for project documents so that comprehensive and comparable information is forwarded on all projects to facilitate analysis and the decision making processes.

At designated points in the process, and with data submitted in given formats, decisions are made about the project using criteria of priority and worthiness. The process and content of the project system form the basis for the PDRT training programs. Figure 4 represents an overview of the Jamaican Project Planning System. It indicates a series of project studies of successively increasing costs. Of course the system is only a model. The time, number and depth of pre-investment studies will vary depending upon the size and complexity of the project as well as other variables. The PDRT tailored action-training to support the performance of the newly established Project Planning System, rather than focusing solely upon selected projects.

An important lesson learned from the project is that action-training works best within coherent systems of project planning, selection and monitoring. One of the first tasks of PDRT was to design a Project Planning and Decision-Making System. This system has evolved into an accepted process for government decision-making on projects. At the Identification Stage, an inter-ministerial Pre-Selection Committee judges the merits of the project idea in light of national and sectorial priorities. The Pre-Selection Committee is composed of representatives from all key Ministries and Agencies involved in development, such as National Planning Agency, Scientific Research Council, Project Analysis & Monitoring Company, Minister of State for Planning, etc. It can promote a project for further study (involving more extensive investigation and the expenditure of pre-investment financing for feasibility studies), recommend implementation, request clarification or reformulation regarding aspects of the project or reject the project. The de-

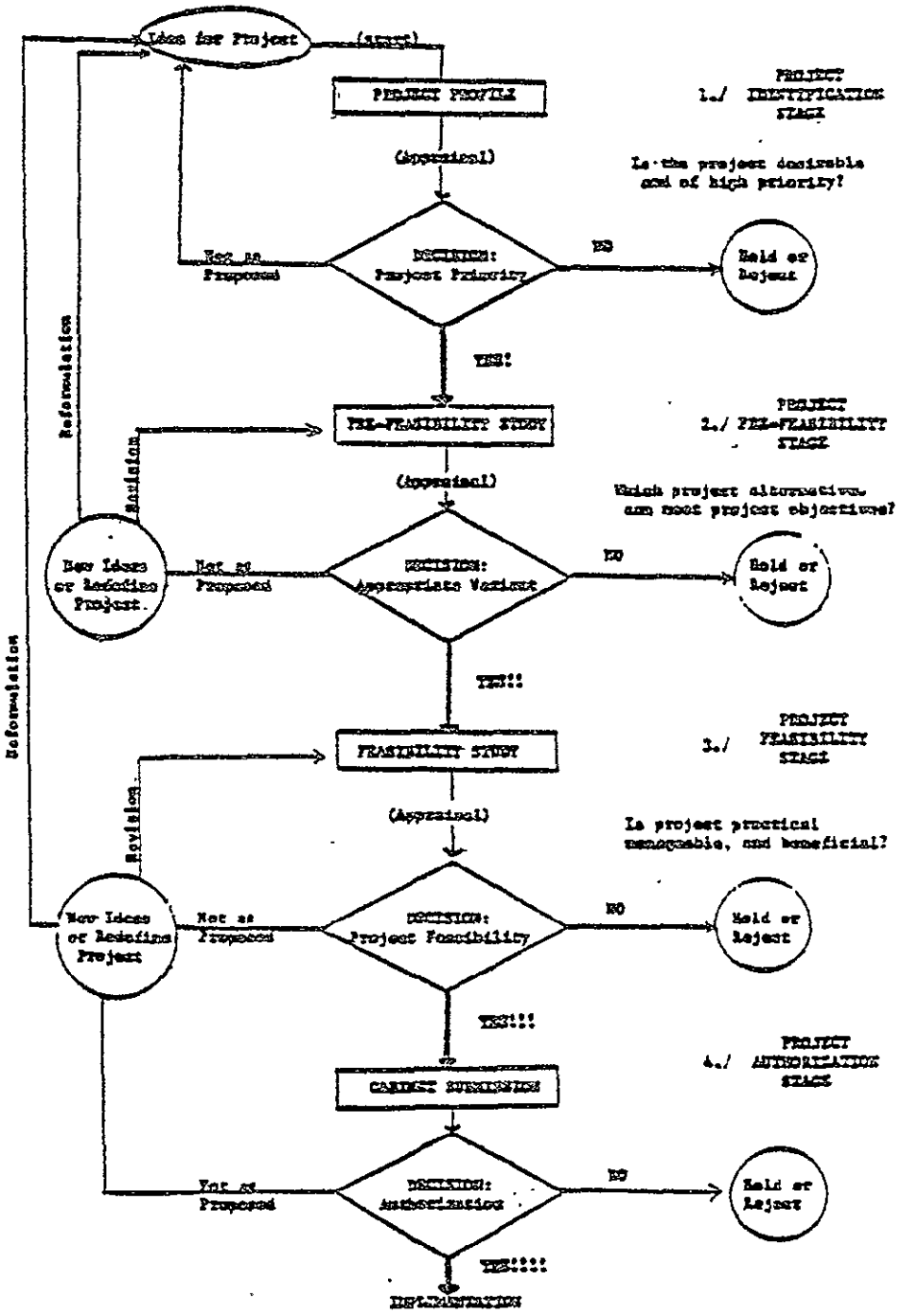


Figure 4 - An Overview of the Project Planning System Highlighting Decision Points, Project Preparation Documents, and Decision Flows in the System.

cision of the Pre-Selection Committee must be reviewed and approved by the Economic Council before it is official. This decision point permits early discussion on the desirability of pursuing further study on ideas submitted and reduces costs on project studies. PAMCO serves as secretariat to the Pre-Selection Committee and coordinates the appraisal of the projects in advanced study stages.

2. Institutionalization of Project Management Systems

The success of the Project Planning System in resolving basic problems in the flow of projects through the planning stages led to an awareness of the need for the introduction of management systems for other phases of the project life. Specific problems had been identified in terms of monitoring and budgeting project funding, for example, which could be more easily resolved if project management systems were initiated for tighter reporting and control. Consequently, PAMCO has become responsible for designing and implementing project monitoring, auditing and management systems. Distinct implementation plans are required for projects. Monitoring is carried out on work schedules and budgets. Reporting is streamlined and integrated at various levels to be synchronized with critical decision dates and points. The various systems which have been recently initiated have already had a positive impact on project implementation performance, the controlled use of foreign exchange, improved project budget coordination, implementation problem identification and resolution, and project audits evaluations.

The PDRT plays a key role in the design and institutionalization of project implementation and monitoring systems which were established to facilitate and and expedite project implementation. To support the original project goals, PAMCO plays a central role in project monitoring to ensure effective and efficient use of foreign exchange on capital investment projects. These expanded project management systems demand an expansion of PDRT's training role. As planning capacity is increased, the earlier focus upon project pre-investment planning is shifted to implementation and management problem-solving.

The introduction of project management systems involves significant change in organizational systems and behaviors. This is not a quick or easy process. It requires that the PDRT have expertise and experience in the approaches and techniques of organizational change and development as well as in training and technical areas. The project design did not reflect the importance of this aspect of the

project. For example, the qualifications of the PDRT and the project advisors did not include skills relevant to organizational development, training and consultation. While the critical role of systems development and organizational change was not reflected in the project design, the need for these skills and activities were recognized and provided for at the early stage of implementation.

3. Development of Standard Project Documents, e.g., The Project Profile

The introduction of project management systems requires the development of standardized documents, formats and criteria for systematic application in appraisal and decision-making. Different documentation tools have been developed with respect to the project planning and monitoring systems in Jamaica. For example, standardized reporting forms are required to synthesize information needed by different units in the government such as the Ministry of Finance and the Bank of Jamaica and are systematically coordinated so that the flow of information is streamlined and the demands for reporting on project managers are facilitated and minimized. The use of these standardized documents can be very wide as their usefulness is recognized and they are adapted beyond their immediate area of application. A very good example of this is the Project Profile. As explained below, it has been widely adapted. It must be remembered that this is only an example of the necessary documentation, and that any document is a tool which must be used properly to be effective. Tools, such as these documents, must be seen as part of the systems and processes for which they are designed. They do not perform fully their intended functions unless they are integrated into project planning and management systems.

The Project Profile is a relatively short but complete description of the project. Designed to answer the most basic and relevant questions about projects at the earliest stages of formulation (why, what, who, when, how), the Project Profile provides a standard format which can be used and adapted for a wide variety of projects. Its function is to ensure that adequate information is at hand when the first decisions about the desirability of a project are made. The Project Profile is relatively simple to prepare, because it is based upon existing and readily available data. From a Project Profile, the areas in which data are still required may be identified for further study, but the Project Profile itself should involve only a modest expenditure of time and money.

One unforeseen impact of the project has been the wide use of the Project Profile developed by the PDRT. Its use in Jamaica has increased the number of project ideas flowing into Ministries, the participation of field staff in project preparation, and the elimination of non-priority or undesirable project ideas. The Project Profile has been adopted by a number of organizations working at the community level; its simplicity permits easy and early development of project ideas which can be further formulated by communities with the assistance of specialist advisors from both government and non-government agencies. One agency, Community Enterprise Organization Company, is responsible for the development of community projects to increase the growth and sufficiency of small communities. This agency depends heavily upon the Project Profile for basic project development. The Project Profile has also ensured better use of pre-investment study funding, initiated under IDB projects for projects which have been pre-selected.

The Project Profile facilitates rapid development of project ideas. This was demonstrated for example in 1979 when Jamaica experienced extensive flooding. The emergency relief committee required an immediate flow of project ideas to form a disaster relief program. The Project Profile became the major vehicle for submitting ideas for appraisal and incorporation into the larger rehabilitation program.

The Project Profile is an extremely important document. It permits the development of a relatively large inventory of project ideas from which projects may be selected for presentation to international agencies--with a minimal training in planning and appraisal.

4. Role Training For Project Development

The original project design considered that training would be addressed to project teams responsible for planning and then implementation of projects. In examining the actual project processes, it became clear that different persons and units performed a wide variety of tasks in relation to every project. The capacity to develop projects was dependent upon everyone knowing how to perform their respective functions well rather than one team knowing all. The various roles in project management systems include, for example, project identification, project profile preparation, project appraisal, feasibility study, managing con-

sultants, etc. The PDRT adapted the action-training model so that it would be geared to narrower roles that specific working groups were performing. For example, the Project Profile is drawn up by one set of people; its official appraisal is done by another set; the feasibility study by still another, etc. This led the PDRT to tailor the training to a larger number of specific roles corresponding to roles in actual projects. The major focus of action-training to the present, has been in five major areas: Project Profile Preparation, Project Implementation Planning, Project Management, Project Administration, Project Appraisal, and Project Monitoring.

It is necessary for the PDRT to have a capability for all types of interventions because of the variety of demands and opportunities. Figure 5 illustrates the various roles that have a place in most projects in Jamaica. Training is seen as a means of giving the required skills to those who will be carrying out these roles.

5. Diversification of Training Interventions

ACTION: Developing Real Projects
TRAINING: Developing Human Skills

Action-Training is an approach to training which is not confined to a single model, but can be determined by the needs of the trainees and the problems of the projects incorporated in the training. It was soon discovered that "Action-Training" can have an alternating focus either upon ACTION or upon TRAINING. The PDRT had to integrate the complementary but competing objectives of action and training.

These objectives are complementary but can also be competitive. The persistence of traditional perceptions of training forces the demand for a "certificate" as the end product of the course (TRAINING). In contrast, the urgency for successful projects forces the demand for moving projects, regardless of the training involved (ACTION).

In PDRT activities, the two objectives are well integrated and complement each other so that the real projects are developed while training is conducted. In other instances, the objectives are not combined well and may compete with each

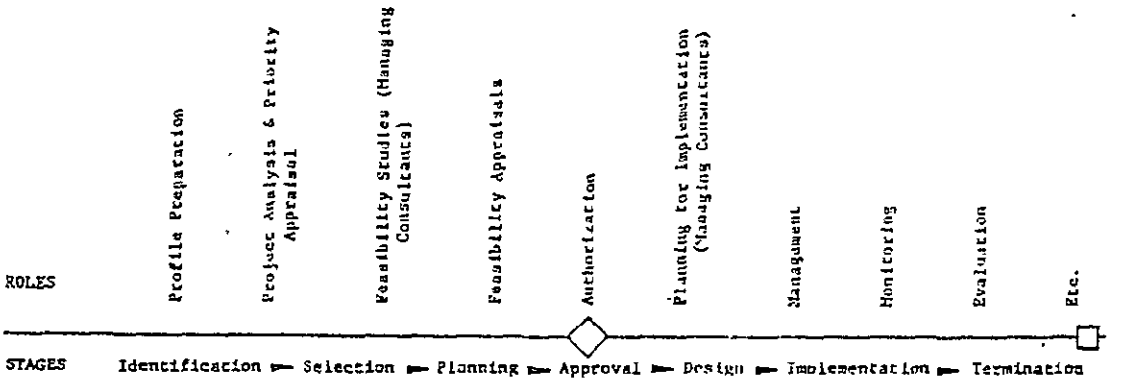


Figure 5 - Stages of a Live Project and Some Different Roles of Project Personnel

other. In project workshops, the PDRT is given the mandate to see that the project is developed, therefore, action is the focus, not training. In some courses, training is the focus, project simulations are used, but not actual projects are developed. The expectations of the client Ministries or Agencies and the availability of real projects for certain exercises often determine whether ACTION or TRAINING may be integrated in a single course. The PDRT has balanced the forces by differentiating the training interventions to include the variety of interventions shown in Figure 6.

Figure 6 - PDRT Matrix of Action-Training Interventions

training \ action	ACTION
action-training seminars lectures surveys project study	**ACTION-training** PROJECT consultation PROJECT workshops PROJECT reviews PROJECT appraisals
action-TRAINING administration COURSE planning SEMINARS analysis SEMINARS "in-country COURSES"	**ACTION-TRAINING** PROJECT PROFILE COURSE IMPLEMENTATION PLANNING COURSE PROJECT MANAGEMENT COURSE PROJECT WORKSHOPS

It was found useful to provide a broader range of training interventions than was anticipated. For example, the PDRT has given a one-day overview of project management to high level government officials and members of the political directorate; one-day consultations with a project group on specific planning of implementation problems; university lectures, etc. While the action-training approach was retained, it was found that there was scope for a varying mix of action and training. Different training interventions emphasize more strongly either action or training: Seminars de-emphasize action but highlight content while consultation and workshops de-emphasize content and emphasize action.

The specific content of any training intervention is determined by the roles

of the persons being trained with respect to real projects and the status of development of the projects used in the training. As different persons have different responsibilities toward projects at different points, action-training attempts to give them the specific tools and understanding necessary for the performance of their specific tasks. In addition, the training focuses on the actual problems encountered on a real project rather than on general presentations. For example, a session is given on Appraisal Criteria only as it is relevant to the actual project being developed and the responsibility of the project team.

Seminars have played an important role. They are useful for top level officials who cannot attend workshops, but must be familiar with project planning and management. They are also useful to introduce and explain innovations such as the project profile and the project planning and monitoring systems. Seminars have helped to establish the program of PDRT by giving both visibility and credibility to the team.

Administrative courses have been important in helping to establish linkages with other training institutions and building a training reputation; project profile and project implementation courses have been most important for establishing the reputation of the PDRT as a practical and useful training-consultation team. Consultation has been an important means for establishing credibility and introducing Project Profiles. Extended two to three weeks, Project Management Workshops have permitted the development of management plans for specific projects directly involving project managers in the process.

6. Broadened Concept of the PDRT Training Role

As can be seen from the activities described above, the PDRT broadened its mandate to include taking an active role in the creation of a Jamaican Project System in order to facilitate training as well as project planning and management. In addition, the PDRT has provided training assistance to other training institutions in Jamaica. For example, when the Administrative Staff College was set up by the Public Service Commission, the PDRT helped design and provide lecture and consultation inputs for courses in project management. The PDRT has assisted with the development of planning and implementation units and systems in various Ministries and Agencies. The PDRT encouraged the Ministry of Agriculture to continue to give a course on project profile preparation to local extension personnel

using Ministry of Agriculture Staff. The PDRT members have been guest lecturers at special programs, such as one on project management at the University of West Indies. Thus, the PDRT becomes actively involved in the total training programs relevant to projects and organization development to support overall project performance of Selected Ministries and Agencies.

E. Evidence of Accomplishments (Project Outputs)

The evident outputs of the project at this time can be summarized into four major categories--Institutionalization, Training of Trainers, Project and Participant Summaries, and Materials Development. Institutionalization: The Project Development Resource Team is an institutionalized unit of the Project Analysis & Monitoring Company, an agency of the Ministry of Finance. Project Planning Systems are institutionalized within several key Ministries and at the National Level. Project Monitoring systems are being institutionalized at the Ministry and National Levels. Training of Trainers: An inter-disciplinary, experienced and highly qualified four-member team now composes the PDRT. They have received training while training during the past year and are carrying on a very active program of training, consultation and project development and monitoring. In addition, previous members of the PDRT who have left still hold positions in which their training is useful. One person initiated a project management course at the newly opened Administrative Staff College and has gone to the Caribbean Development Bank where he will open a similar program there. Another member has become the Director of the Project Courses and Seminars at the Administrative Staff College. Other members still work on projects with the Ministry, and Small Business in Jamaica. Materials Development: The PDRT developed a comprehensive set of training materials which is being published by the Government of Jamaica as the *Project Planning and Management Series*. The series consists of manuals on project planning and management as well as 46 modules on specific tools, techniques and concepts of project planning and management, such as discounting, internal rate of return, management information systems, etc. See Figure 7 for a full set of the Series, which is constructed very flexibly so it can be adapted to meet new needs and revisions. Several new modules are already being added to the Series. Summary of Participants and Project Development:

Figure 7

Project Planning and Management Series

PAMCAL – Planning for Project Implementation

MAPCAL – Project Planning

PAMCAL – Project Management

PAMCAL – Pioneer Farm Implementation Planning

MODULES

1. Defining Project Objectives (Objective Trees)
2. The Logical Framework
3. Work Breakdown Structure
4. Activity Description Sheets
5. Project Organisation
6. Linear Responsibility Charts
7. Project Scheduling – Bar Charts
8. Bar Charting for Project Control/Scheduling
9. Project Scheduling – Network Analysis
10. Milestone Bar Charts
11. Resource Planning & Budgeting
12. The Role of PAMCAL
13. Project Technical Analysis
14. Demand Analysis
15. Market Strategy Analysis
16. Project Risk Analysis
17. Project Brief & Briefing
18. Project Profile
19. Financial Analysis
20. Cash Flow Analysis
21. Discounting
22. Net Present Worth Analysis
23. Cost-Benefit Analysis
24. Benefit-Cost Ratio Analysis
25. Internal Rate of Return
26. Social Analysis of a Project
27. Economic Analysis of Projects (including Border Pricing)
28. Financial Statements & Ratios
29. Project Selection & Ratios Analysis
30. Brainstorming
31. Decision-making System for Projects
32. Project Institutional Environmental Analysis
33. Ecological Analysis for Projects
34. Introduction to Contracts, Jamaican Contract Documents & Tendering Procedures
35. Selection & Use of Consultants
36. Project Documents for Planning & Implementation
37. Report Writing for Projects
38. Project Files
39. Formats for Pre-Feasibility & Feasibility Studies
40. Motivation of Employees and Personnel Evaluation
41. Design of a Project Management Control System
42. Evaluating & Forecasting Project Progress & Performance
43. Project Termination
44. Introduction to Lending Agencies
45. Organising and Conducting Conference meetings
46. Withdrawal of and Accounting for Loan Funds in the Financing of Projects

Over the life of the project, assistance has been given to nearly 150 projects at various stages of development. The assistance always has a specific terms of reference, such as development of Project Profile, Feasibility Study, Implementation Plan or Monitoring System, etc. Project development and management assistance has been given through workshops and through consultations. A summary of the project action-training activities over the life of the project are summarized in Figure 8.

Figure 8 Summary of PDRT Action-Training Activities (1977-1980)

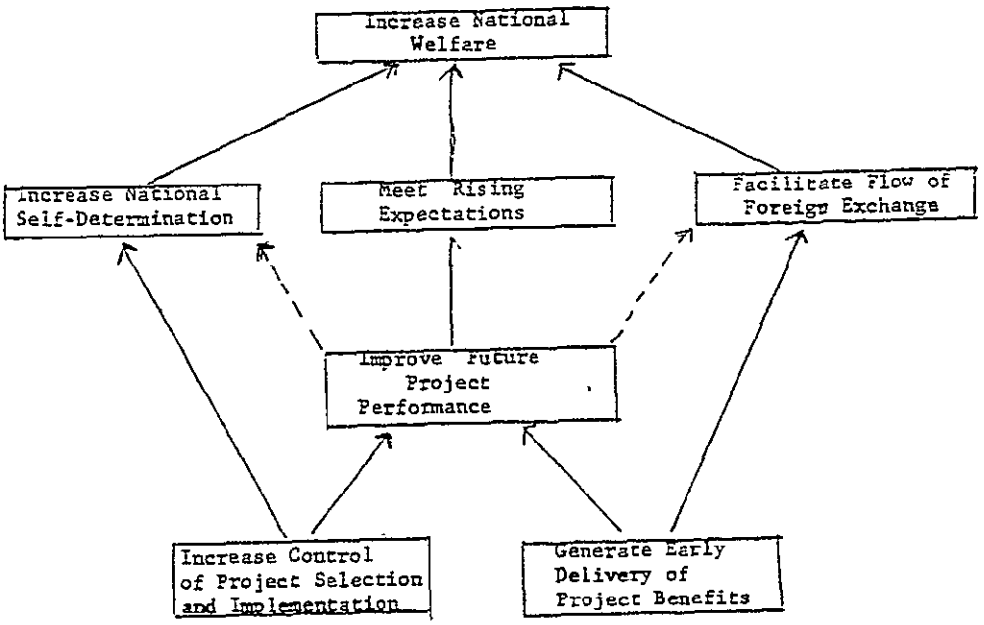
Type of Training	projects assisted	persons trained
Project Planning Workshops	42	182
Project Implementation-Management Workshops	30	160
Consultations: Project Planning	54	110
Consultations: Management/Implementation	20	98
Seminars: Planning and/or Management	—	550

IV. Long Term Development Results

A. Desired Long Term Goals

As with all development projects, the ultimate goal may be summarized as increasing national welfare. There are, however, many ways of interpreting this goal, i.e., in terms of increased income or more equitable distribution of income or higher levels of awareness and self-determination, and so on. In Jamaica, this ultimate goal can be defined in at least three ways (means) relevant to this project. First, there was a deliberate intention to become more self-reliant and to take more control of national affairs and destiny. This was evidenced by extended national control in the industrial and banking sectors. Second, there were expectations among the population for increased income and higher living standards in terms of essential and consumption items. Third, there was an expectation of higher flows of foreign exchange into and out of the economy through higher production and more efficient management. Each of these becomes a means of achieving the ultimate goal of increased national welfare. The upper eschelons of the objectives of the project are illustrated in Figure 9.

Figure 9



The unifying purpose was to improve project performance in Jamaica. It is promoted by increased project control and movement of present project. Improved project performance, in turn, contributes directly to meeting the rising expectations of the population by providing through government projects the services and foundations for productive activities (i.e., industrial projects, food farms, cooperatives, etc.) The improved project performance also facilitates the flow of foreign exchange as project funds are often seed monies to promote higher foreign exchange earning or to ensure efficient foreign exchange use. Future project performance, if improved, also is a means of increased national control of destiny or self-determination. As projects are successfully carried out under Jamaican initiatives, the nation becomes less dependent upon foreign leadership. It is important at this point to note that there may be a high interdependence with international systems and multiple linkages to other national economies and societies. This can be a useful form of relationship if there is a fulfillment of national objectives as determined and controlled by Jamaicans. Decreasing dependence is not the same as isolation, rather it is an increasing of self-

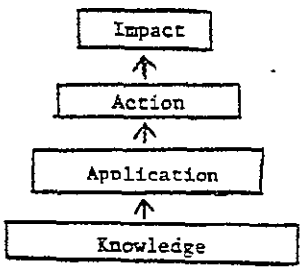
determination and realization within a relationship. This can be realized as donor/lender agencies work within Jamaican-initiated projects and through Jamaican management systems rather than the reverse.

As a key means to achieving the higher level objectives of increased national self-determination, meeting rising expectations and facilitating the flow of foreign exchange through the economy. Improved future project performance fell high within national priorities and was interpreted as a means to help meet, but it had to be the urgent demands upon the government and the society. We will examine how "action-training" was able to facilitate the mobilization of specific project resources to meet these demands, but first we need to understand the dynamics of a more traditional approach to improving project performance.

B. Cause and Effect Linkages

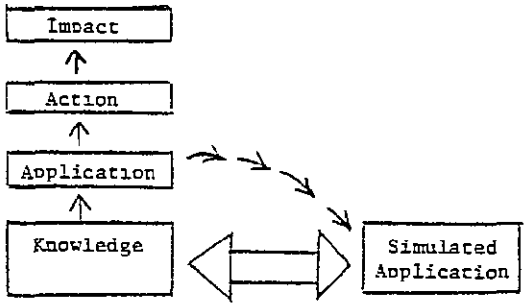
A traditional approach to project management training has been to bring individuals for degree or short courses in U.S. institutions. Often persons from different countries with similar official levels are brought together to learn the key concepts to improve their managerial effectiveness. Another approach has been to develop packaged courses for in-country training so that the cost per individual trained is reduced and so that more persons can be trained within a specific national setting. In both of these approaches, the emphasis has been upon transfering specific content to help persons be more effective when returning to their jobs. If the transfer is successful, the managers will have new skills to carry out their managerial and technical assignments, and there will be an improvement in the overall performance of their respective organizations The ends-means assumptions as outlined can be simplified as below in Figure 10.

Figure 10: Training Hierarchy



One of the key lessons of training is that often participants find it difficult to immediately and directly apply the tools, skills and concepts to which they were introduced in training. As time passes, the innovativeness and enthusiasm wane and little organizational development or change is evident from the training. Infact, much more knowledge (content) is often put into courses than may ever be practiced or applied by the participants (as noted by the decreasing size of the hierarchy of boxes in Figure 10). And because of constraints and restraints to application, even less direct action or change occurs, with the result that the ultimate impact is relatively small. In other words, the knowledge loss is very high. It has been found useful to provide opportunities for participants to apply tools, techniques and concepts when they are introduced to reinforce the knowledge, demonstrate applicability, and test individual capabilities and understandings. The use of simulations and exercises in training can perform this function. As illustrated in Figure 11, this is the beginning of the fusion of a hierarchy of means illustrated above. It attempts to bring the application of knowledge closer to the transfer of knowledge by beginning application as part of training. Although it may be useful to help the individual develop strategies for intervention upon return to the work setting, it does not effectively fuse knowledge with application to increase the implications for action or impact.

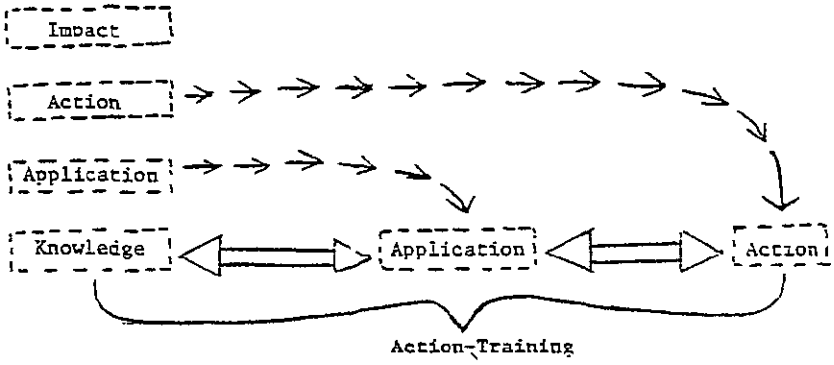
Figure 11: Simulation Training Hierarchy



The innovation of action-training is that it makes a horizontal fusion of knowledge, application and action. The training hierarchy is significantly reduced. Knowledge transfer, application and action are achieved simultaneously,

and the overall impact is brought forward. In addition, it can be certain that the knowledge is relevant and practical, thus reducing the loss of knowledge illustrated in the previous training hierarchy. (See Figure 12.)

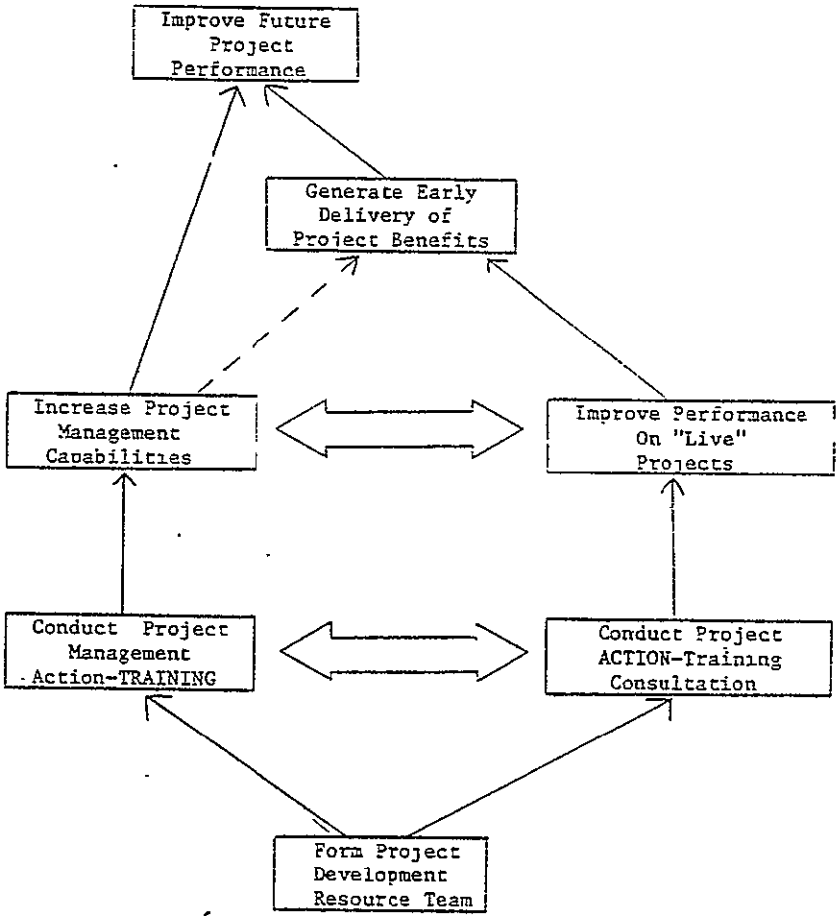
Figure 12: Fusion Of Training Ends And Means In Action-Training



Action-training is a fusion of several levels in the training ends-means hierarchy. It results in more efficient transfer of knowledge, relevance to action and earlier developmental impact. However, action-training is a dynamic fusion of two complementary, but competing objectives as described earlier in this paper. "Action" results in improved performance on live projects, while "training" increases management capabilities. As the PDRT carried out its action-training program, there was always a tension between these objectives, so it is useful to consider them separately in our illustration of the cause-effect linkages of this technology. The basic strategy of the project was to form a Project Development Resource Team to carry out an action-training program to move live projects and increase project management capabilities. This would result in earlier delivery of Project benefits as well as improved future project performance. (See Figure 13.) An interest consequence of the fusion of action and training at the lowest ends level is that the increased project management capabilities are reinforced by (and reinforce) performance on live projects so that fusion at this higher ends level is also nurtured.

One of the distinct lessons of the National Planning Project is that a singularly identified project team does not carry a project through a complete

Figure 13


Improve Future Project Performance
Generate Early Delivery of Project Benefits
Increase Project Management Capabilities
Improve Performance On "Live" Projects
Conduct Project Management Action-TRAINING
Conduct Project ACTION-Training Consultation
Form Project Development Resource Team

planning or implementation phase, but that different persons and teams have various functions and roles which must be integrated and coordinated to improve project performance. Neither project, nor a project team, can be isolated from its organizational context. To improve project performance, it is necessary to introduce project management systems through a strategy of organizational development which will increase the institutional capabilities as well as individual capabilities to meet the demands for improved project management performance. Therefore, the design of project management systems supports action-training in a comprehensive organizational development strategy. Thus the foundation is provided for moving projects forward for determining content for training and for improving overall organizational performance.

The application of the system designs on live projects through action-trainin is a fusion which tests the systems and results in their adaptations to organizational realities. Action-training becomes a key vehicle in the institutionalization of project management systems by the fusion at this primary level. As the systems are institutionalized, there is natural fusion with increased management capabilities and improved performance on live projects as shown in Figure 14.

Figure 14: Fusion of Systems Development and Action-Training

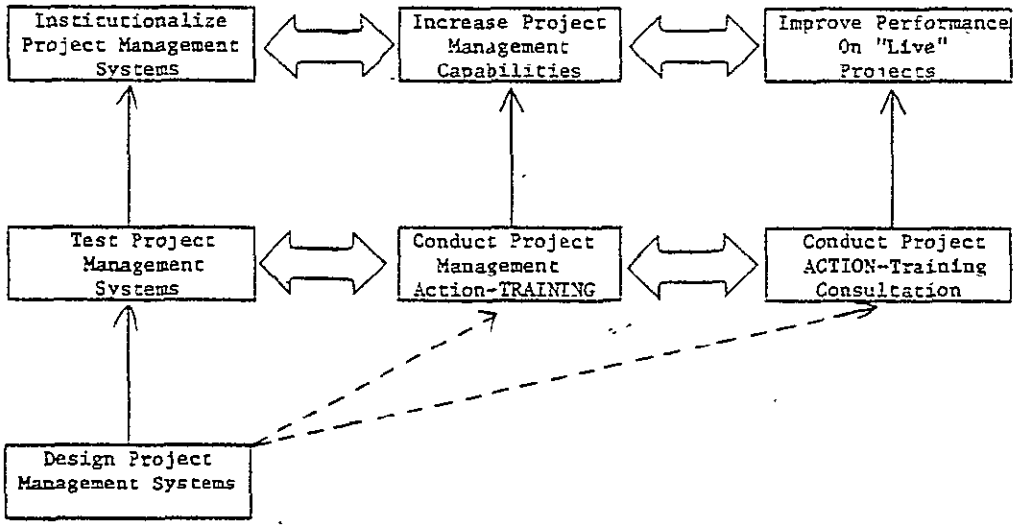
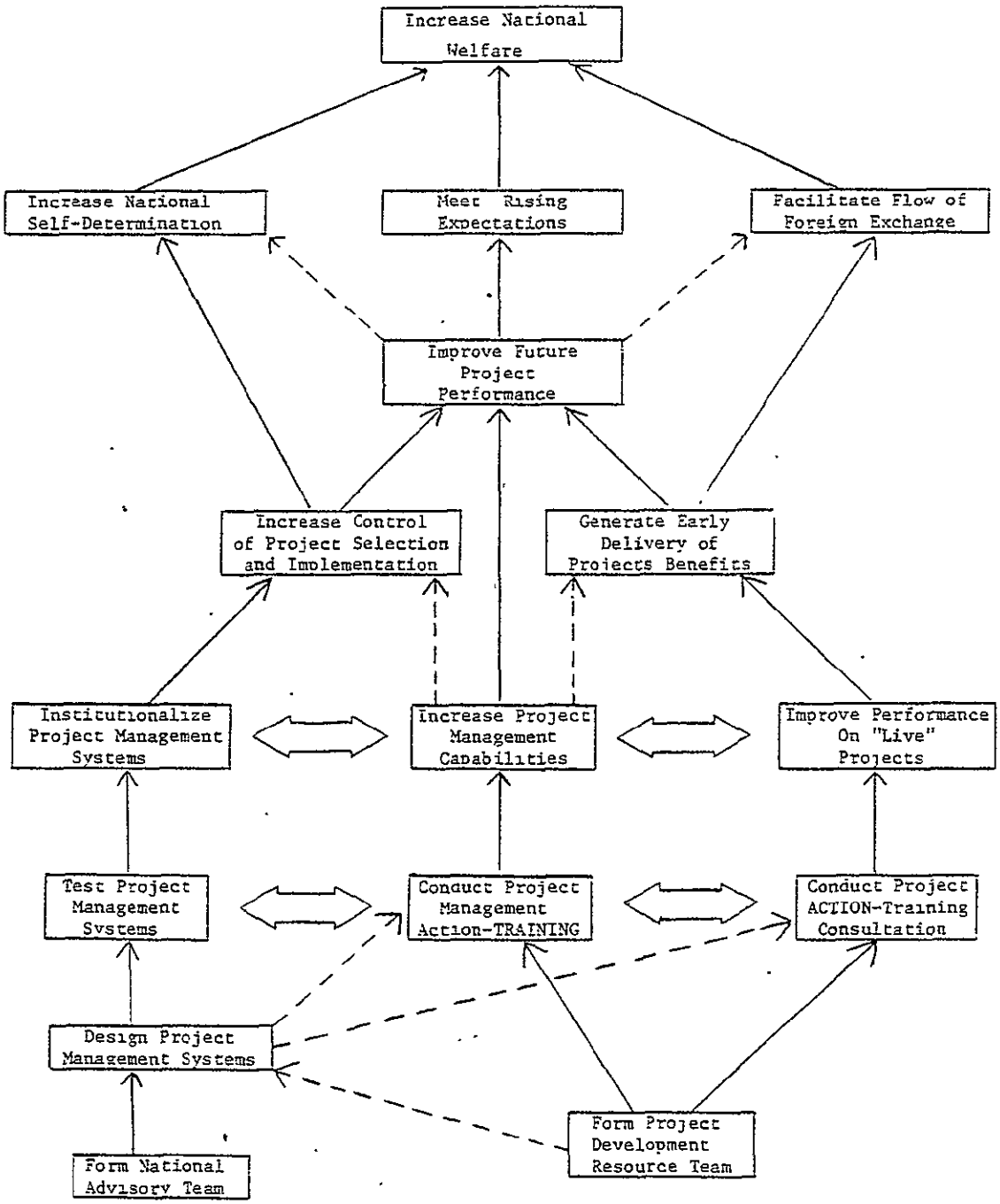


Figure 15: Cause-Effect Linkages for National Planning Project



The fusion of action-training and systems development to move live projects, increase management capabilities, and to improve future project performance, while simultaneously increasing the national sense of control of destiny and promoting early generation of project benefits. It is the fusion of cause-effect linkages through a dynamic organizationally sensitive action-training program which is the innovation of this project and which resulted in the exciting achievements of the project. The total fusion of the cause-effect linkages is illustrated in Figure 15, which is built from the proceeding discussion. Beginning with the formation of the PDRT and the design of project management systems, the higher-level objectives are achieved through the horizontally fused interactions and effects of action, training and systems development.

V. Conclusions and Implications

A. Conclusions

The action-training approach is seen in Jamaica as an extremely efficient and effective way of handling training on projects. It is likely that it will be expanded to improve management in broader financial and operational programs. It is so attractive because action-training directly helps solve real problems on live projects. Projects are moved forward so there is immediate and direct benefit from the participants' work on specific aspects of their project assignments. The training environment supports informal as well as formal interaction and sharing of information which might not normally appear in general training or reporting so that problems can be more clearly identified. Immediate reinforcement and internalization takes place easily in the action-training situation. Creativity is encouraged as participants tend to relate more fully within the team situations to both identify and solve problems which arise in dealing with the live projects.

The PDRT acts primarily as facilitators, as well as trainers, since PDRT members assist the work teams to mobilize their own resources. The PDRT gains much knowledge and experience through the action-training program, which in turn facilitates better communication from their central agency with the operating ministries and agencies. Much is learned about the operations, peculiarities and problems of different ministries, and this background provides certain information

relevant to problem-solving which can be passed to administrators and other trainers. The focus of action-training is always developmental for all persons involved and pivots upon real problem-solving for projects and organizations as they carry out their priority assignments.

B. Implications for Project Management Improvement

Every country has special needs and circumstances which must be reflected in a country project management improvement project. Certain implications for such projects can be drawn from the experience of the Jamaica project.

1. It is clear that there are substantial advantages in linking training with actual projects in a close relationship with responsible operational organizations, so that action-training fused with systems and organization development provides a flexible and effective approach for project management improvement.
2. Action-training facilitates responsible and realistic decentralization of project planning and implementation and provides a framework to integrate central agencies with field work in a coordinated total effort. This requires the simultaneous development of management systems, organization development interventions and project action-training.
3. The Project Development Resource Team has a substantial advantage if located in a central agency of the government, but it must be a small, facilitative multi-disciplinary unit composed of experienced and qualified professionals who can facilitate the mobilization of existing and available resources through action-training for problem-solving.
4. A blend of training and action, is difficult to maintain, so it is important that the turnover of PDRT personnel be minimized during the first two years of the project. This gives time to establish a mode of operation and develop materials as well as to institutionalize team identity.
5. In view of the shortage of qualified and experienced project personnel, this approach is an effective use of a small cadre of professionals to get maximum spread effect of their expertise across projects and sectors. A comprehensive program of organization development and follow-up problem-solving sessions to complement action-training can be used

effectively to improve management capabilities and organizational productivity.

6. Participants in project action-training are widely spread throughout an organization, and have different knowledge, skills, techniques, technical languages, educational levels, organization authority, and so on. Action-training involves the establishment of meaningful working relationships and communication based upon minimum levels of standardized conceptualization, terminology and understanding which the PDRT can help formulate and institutionalize.
7. The experience of action-training shows that fullest benefits are derived when all levels of involved organization and project staff participate to a relevant extent in the training program through a variety of training interventions.
8. Action-training is most effective when there is a preliminary meeting of all agencies involved (especially of appropriate administrators) to establish an action-training foundation by clarifying expectations, roles, bottlenecks, flows and assignments.
9. Project action-training must be related to the existing bureaucratic and incentive systems, which usually are geared toward routinized programs, organizational line of work, recognition, traditional authority priorities, and degree of certification awards for training. These traditions must be innovatively adapted to meet the demand for project management improvement.
10. Training materials should be simple, practical, oriented toward action, and immediately relevant. Comprehensive overviews should be provided so participants know where they fit within the "whole picture." Short project-related exercises are extremely useful in introducing concepts and linking these to projects, but the focus in upon actual assignments on "live" projects.