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THE CREATION OF AID'S DEVELOPMENT INFORMATION ANALYSIS CENTER

A Report on DS/DIU/DI

Volume I: Executive Summary

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Preface

During the period from July 1976 through June 1978, Practical Concepts Incorporated (PCI) assisted the Agency for International Development (AID) in establishing a development information analysis center that provides Agency project designers and managers with pertinent information on a timely basis. The development information analysis center created during this period is today known as the Office of Development Information (DS/DIU/DI). PCI's assistance to DS/DIU/DI was provided under Contract Number AID/otr-C-1501.

This Executive Summary is one of three volumes of PCI's report on the creation of DS/DIU/DI. It summarizes the activities undertaken during the contract period and the accomplishments of DS/DIU/DI. The Executive Summary also presents PCI's recommendations for consolidating DS/DIU/DI's progress to date and enhancing its value to Agency personnel. Volume II of the report, submitted separately, traces the development of DS/DIU/DI. Its white pages present a review of performance at the Input, Output, Purpose and Goal levels of Logical Frameworks that were prespared when DS/DIU/DI was simply an idea. Its yellow pages present background papers and analyses that summarize the historical record of this Office. Volume III of the report is the Analysts Reference Manual PCI developed for use by the Information Specialists of DS/DIU/DI.

Contents

Section 1

Introduction

A. BACKGROUND

In August 1975, the Agency for International Development received a set of recommendations from Practical Concepts Incorporated (PCI) for establishing a Development Information Service that would provide AID project designers with useful information, integrate a number of existing Agency information activities, and, over time, realize its potential for becoming AID's primary development information analysis center. Those recommendations, which were developed under Contract Number AID/otr-C-1377, Work Order #2, promised important improvements in the management of information pertinent to project design.

In late 1975, AID decided to proceed with the establishment of a Development Information Service. By January 1976, the Agency had announced the creation of this new service and begun assigning staff to the Office, which was at that time located in the Bureau of Program and Policy Coordination (PPC). Later in 1976, AID changed the name of the Development Information Service to the Office of Development Information. On July 1, 1976, AID contracted with PCI for assistance on a number of tasks related to the development and operation of the Office of Development Information. PCI assistance was provided to this Office under Contract Number AID/otr-C-1501 through June 1978. The Office of Development Information operates today as DS/DIU/DI, a unit within AID's Development Support Bureau.

B. SUMMARY OF THE ORIGINAL PLAN FOR ESTABLISHING A DEVELOPMENT INFORMATION SERVICE

The Development Information Service (DIS) was designed to be an information analysis center within the Agency. The following definition, taken from PCI's 1975 report, summarizes AID's expectations concerning the nature and role of this service:

> "An information analysis center is a formally structured organizational unit specifically (but not necessarily exclusively) established for the purpose of acquiring, selecting, storing, retrieving, evaluating, analyzing, and synthesizing a body of information in a clearly defined specialized field or pertaining to a specified mission with the intent of compiling, digesting, repackaging or otherwise organizing and presenting pertinent information in a form most authoritative, timely and useful to a society of peers and management."*

As this statement of characteristics suggests, the Development Information Service was expected to be a dynamic organization which continually evolved in response to information needs and availability. Specifically, it was expected that DIS Information Specialists would assist Agency staff in meeting their needs for information (particularly information needs that related to AID's project design process) by routinely producing three types of information packages:

- Automatic Responses -- descriptions of the basic materials contained in DIS memory with periodic updates, as well as episodic circulation of key information products. Routine descriptive data might include lists of new publications and projects, evaluation reports, etc. Episodic information products, circulated on an as-completed basis, might include special information responses to topics of general interest (e.g., if DIS does an inventory of water resources activities on demand for project designers in the Middle East, that information might be circulated to all USAIDs).

- Semi-Automatic Responses -- in response to specific types of project documentation, e.g., a PID. Such responses would identify

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* Establishing a Development Information Service (DIS), Practical Concepts Incorporated, Washington, DC, August 8, 1975, page I-3.

programs or projects having similar goals, as well as sector studies, context data and bibliographies as appropriate to issues raised in a PID. Project summaries would be forwarded for those projects where good evaluation data are available. To help project designers at the PID stage of project development, summaries of projects with similar purposes would be forwarded. Both projects with similar Outputs and those with quite different Outputs would be included to help project designers consider their options with respect to how a specific development problem might be addressed.

- Direct Responses -- (issue and/or problem-oriented) answers to specific requests from DIS users, i.e., USAIDs, project design teams, offices in AID's central bureaus, contract teams, etc.

To facilitate the production of high quality information packages by DIS Information Specialists, it was anticipated that the Development Information Service would need to create and maintain five basic types of information "files" including: A project file (containing all project-unique information), a country and program file, an evaluation and special studies file, a context file (that included materials on socio-cultural practices, constraints, etc.) and a technical file. The term "file" was used to identify a variety of automated and manually accessed data that, in effect, would incorporate all core information pertinent to the "science of development". Easy access to these files was to be a key feature of the DIS system. Rapid access to information was to be made possible by the use of "key word" codes (i.e., words commonly used by AID personnel to refer to specific classes and types of development projects) and by using AID's Logical Framework approach to organize, store and retrieve materials on projects.

In the report Establishing a Development Information System, a plan for implementing the DIS was presented. That plan envisioned an early effort to pilot test information packages and develop procedures AID could apply to the development of future information packages. A partial Logical Framework was developed that identified the Outputs which AID needed to produce during the early phases of DIS operations. That partial Logical Framework is presented in Figure I-1.

FIGURE I-1:

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LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date _____
Date of this Summary 8/75

Project Title: PARTIAL LOGFRAME: DESIGN STUDY FOR A USAID DEVELOPMENT INFORMATION SYSTEM

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Goal: The broader objective to which this project contributes: AID Project and Program Planners have state-of-the-art information conveniently available.	Measures of Goal Achievement: 1. Semi-automatic responses deemed relevant by 90% of recipients and "very valuable" by 50% 2. Project reviews discern: --better use of experience; --awareness of technical and conceptual issues (including benefit incidence). 3. Estimated value of 1. and 2. at least double the cost of DIS.	Self-monitoring DIS system which counts responses and flags deadlines missed.	Concerning long term value of program/project: USAID planners use the information sent out by DIS in making project and program decisions.
Project Purpose: Initiate implementation of a cost-effective DIS.	Conditions that will indicate purpose has been achieved: End of project status. Implementation Phase initiated with endorsement of key Bureaus and personnel		Affecting purpose-to-goal link: Basic file automation available through PBAR initiatives.
Outputs: 1. Full-scale information analysis support provided for important project or class of projects. 2. Based on 1 above, standard (semi-automatic response) packages prove value to USAIDs. 3. Procedures and organization established to ensure effectiveness of automatic, semi-automatic, and special response modes. 3.1. Organization and staffing defined based on alternative work loads. 3.2. Space and equipment projections and budgets. 3.3. Procedures for liaison with other information sources, libraries, and other AID systems. 4. DIS utilization demonstrated to field and AID/W planners and managers. 5. Procedures for continuing evaluation and improvement of DIS. 6. Procedures for continued enforcement of utilization.	Magnitude of Outputs necessary and sufficient to achieve purpose. 1. Alternative information products--based upon differing extent and intensiveness of information support--assessed for cost and benefit. 2. Missions respond favorably to information products. Utilization of information reflected in subsequent PIDs and related project documentation. 3.1. Organizational and personnel requirements make sense in terms of availability of personnel as well as system requirements. 3.2. Realistic in making good use of available AID facilities. Cost minimized through integration of existing functions--e.g. ABC 3.3 Two-way exchange programs established with best sources; all plausible sources identified; DIS represented when planning new AID systems. 4. DIS operations simulated and proven to USAID personnel. Information packages developed following DIS procedures are deemed by recipients to have value substantially in excess of projected costs. 5. User evaluation routinely scheduled. Impact evaluations (are projects better because of DIS packages?) scheduled and include interrogation of all users of special studies. 6. Positive as well as negative incentives provided for utilization.	Simulation. Field and AID/W pilot study. Monitoring by AID managers and future users of DIS.	Affecting output-to-purpose link: Successful completion of a DIS design study.

AID's review of the Logical Framework for initial DIS operations suggested that several elements of a core DIS unit would need to be created even before work could begin on producing the Outputs listed in Figure I-1. The pre-operations work that needed to be undertaken included the assignment of core staff to the unit, development of a library of project documentation, preparation, coding and automated storage of basic information on project, etc. To organize this work conceptually, AID and PCI prepared a separate Logical Framework to cover the activities which had to be completed during the first months of DIS's existence. Figure I-2 displays this pre-operations Logical Framework. The pre-operations work was begun early in 1976. The target date for production of all pre-operations Outputs was 8/31/76.

C. SCOPE OF THIS CONTRACT

The scope of work for the PCI contract originally contained four tasks. The tasks assigned to PCI focused on the creation of Outputs 1, 2, 3.1, 3.3, 4, and 5 of the Logical Framework shown in Figure I-1.

This scope of work was modified several times in the course of the two year engagement. By amendment, AID added eight additional tasks to the scope of the PCI effort. The full list of contract tasks is presented below in roughly the order in which they were undertaken. The four tasks which are marked by an asterisk were identified in the original contract:

1. Guide and monitor the abstracting of AID projects;
2. Design a proposed DIS organizational structure;*
3. Provide assistance in the selection of projects to be included in the pilot tests;
4. Prepare a response to a simulated information request and field test the Output package;*
5. Conduct a "speed test" on the development of a semi-automatic package;

FIGURE I-2:

PCI 72-8

LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date _____
Date of this Summary 1/14/76

Project Title: DIS - Pilot Phase

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Goal: The broader objective to which this project contributes: DIS fully operational and contributing to better project design.	Measures of Goal Achievement: 1. DIS providing useful information in response to 90% of queries from users involved in project design by 1978. 2. Percentage of projects completed on schedule within planned resources and having met performance targets increases to ____ by 1978 and to ____ by 1980.	1. Communication (documents) between DIS & users; 2. PBAR system (CPDB).	Concerning long term value of program/project:
Project Purpose: DIS's viability and contribution to better project design are demonstrated.	Conditions that will indicate purpose has been achieved: End of project status. 1. Next phase of DIS development approved by Agency Management by October, 1976. 2. Mission Director, Program Officer and Project Designer(s) in pilot Mission(s) affirm that DIS was useful and without its assistance the resulting project design would not have been thought through. October 1976 3. AID/W and other experts confirm usefulness of DIS information.	1. FY77 Budget for DIS; 2. Direct feedback from Mission personnel; 3. Direct feedback from AID/W personnel.	Affecting purpose-to-goal link: 1. Next phase of DIS development is carried out; 2. Project designers seek information from DIS & use it in project design.
Outputs: 1. Core DIS staff on board and other resources secured. 2. DIS memory functioning for limited scope. 3. DIS-assisted project design completed. 4. Further DIS development planned. 5. Logistics and library activities set forth.	Magnitude of Outputs necessary and sufficient to achieve purpose. 1.a. DIS staff on board by 3/29/76: - Director by 1/12/76 - Secretary by 1/19/76 - Deputy by 2/2/76 - Abstractor by 2/16/76 - Information Specialist by 3/1/76 - Information Specialist by 3/29/76 b. Contract signed for external services by 3/1/76. 2. Data available from DIS on one subject field by 8/31/76. 3. Project papers for three projects are developed, utilizing information provided by DIS by 8/31/76. 4. Development program for DIS is completed by 9/27/76. 5. DIS logistics resolved and library activities functioning by 8/31/76.	1.a. Personnel files; b. Contract; 2. Airgrams to/from DIS; 3. PPs; 4. DIS Development Plan; 5. Library.	Affecting output-to-purpose link: 1. Skills of personnel transferred to DIS meet 2. External contractor performs according to specs; 3. Missions selected for pilot cooperate.

Figure continued on next page.

Continued from previous page.

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LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date _____
Date of this Summary 1/14/76

Project Title: DIS - Pilot Phase

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs: Activities and Types of Resources	Level of Effort/Expenditure for each activity.				Affecting input-to-output link:
1.a. Select and appoint staff. b. Select and contract for outside services.	TOTAL	AID/DIS	EXTERNAL	DIS Budget for FY76 and FY77.	1. Personnel available;
2.a. Collect and codify data on narrow subject field. b. Prepare semi-automatic package for first project. c. Evaluate package (on-site) and redesign to provide more information. d. Collect more data if necessary. 3.a. Utilize information provided by DIS. b. Request additional information from DIS if necessary to develop PP. c. Develop project paper(s). 4.a. Evaluate quality of PP(s). b. Assess impact of DIS information on PP quality. c. Prepare plan to further DIS development based on experience obtained in pilot. 5.a. Define and implement DIS library activities. b. Specify and resolve DIS logistics.	50 MM	30 MM	20 MM		2. Funds available.

6. Modify, as indicated by the pilot test, the formats and procedures for preparation of semi-automatic response packages;

7. Using experience gained in managing the preparation of direct inquiry responses, define and develop alternative formats and procedures as required, for routinely preparing responses in this mode;

8. Manage a test by DIS Information Specialists of the development of an automatic package, in a subject matter selected by the Office of Development Information, and as a result of that effort distill written guidance on procedures and formats for the development of future automatic responses;

9. Design detailed proposed DIS operating procedures;*

10. Train two Information Specialists in the development of semi-automatic packages;

11. Provide guidance to direct hire and contract Information Specialists and to the individual appointed by the Office of Development Information to take over management of the work of the Information Specialists;

12. Propose a plan for further DIS development.*

Section 2

Objectives and Accomplishments

A. THE STRUCTURE OF DS/DIU/DI OBJECTIVES

The central reason for establishing a Development Information Service in AID was to improve project design through institutionalization of a process by which "lessons learned" from past AID and other development experiences were incorporated into the design and development of new Agency projects and programs. This process was conceived of as having two components:

- A subprocess that made information available to project designers on a timely basis; and
- A complementary subprocess that provided incentives for using the information made available by the first subprocess.

The initial vision of a Development Information Service, as outlined in PCI's report Establishing a Development Information Service, anticipated placement of the management responsibility for both subprocesses within a single Agency unit. AID's review of the design for the DIS led to decisions and subsequent actions which, in practice, incorporated only the first subprocess. The second subprocess, enforcement, was viewed by AID as being more naturally a part of its existing project design and approval process, i.e., Handbook 3 includes a requirement to make use of "lessons learned" during the preparation of project design documents. Enforcement of this requirement in AID's view, was properly the responsibility of Offices that participated directly in the project review and approval process. Thus, DIS came to mean a unit that made information available to project designers on a timely basis.

The removal of the second subprocess, enforcement, from the DIS scope meant that a critical element required for achieving the objective of improving project design would not be within the unit's manageable interest. Nevertheless, AID judged the idea of a limited DIS, which would manage only the second subprocess, to be worthwhile. Based on this modification of the original concept, the Purpose statement for an effort to establish a Development Information Service became:

> A viable and cost-effective unit that provides pertinent information, per the functional specifications of its design, to project designers and managers on a timely basis.

It was AID's hypothesis that <u>if</u> this Purpose was achieved and <u>if</u> the Purpose level Assumption for the DIS (that information would be used) was valid, <u>then</u> visible improvements in project design would result. A demonstrable improvement in project design was, thus, the specific Goal to which the Development Information Service was expected to contribute.

In any Logical Framework, only a portion of the total logical structure of objectives into which a specific activity fits is normally displayed. Thus, the Goal level statements developed for AID projects overseas or for its efforts to develop new capacities within the Agency often reveal only the "tip of the iceberg". As noted above, in the Logical Frameworks prepared for the Office of Development Information, the Goal level hypothesis is that if DS/DIU/DI provides project and program planners with pertinent information then Agency program designs will improve.

An examination of the DS/DIU/DI Goal level hypothesis in the context of the Agency's mandate to bring development benefits to the poor, makes obvious the fact that the logical chain of objectives to which DS/DIU/DI hopes to contribute does not end with improvements in project design. Good project designs are linked in a hypothetical manner to still more ambitious objectives. To clarify the nature of the next levels in this objective hierarchy, one only need ask the reason for improving program designs. The reasons lead directly to AID's mandate, as shown below.

IF	----------	AID project designs are improved,
THEN	----------	The projects AID supports and monitors will be improved (i.e., they will be better managed, more appropriate for the situations in which they are undertaken, more knowledgeable and sensitive to what works on-the-ground, as well as more attuned to host country needs and interests and more likely to be sustained by the host country after AID assistance terminates).

Taking this logic one step further:

IF	----------	AID-funded projects are "better" in demonstrable ways,
THEN	----------	The development benefits those projects yield for the poor people of the developing nations will increase.

As the figures above suggest, the objectives of the Office of Development Information, when taken to their logical conclusion, focus directly on the Agency's raison d'etre.

B. TASKS UNDERTAKEN & COMPLETED

This section of the Executive Summary comments on the process of establishing the Office of Development Information by breifly reviewing and commenting on the tasks undertaken by PCI in the course of its two year contract. The discussion is divided into the four general areas in which assistance was provided:

- Development of the Project Data Base;
- Creation of Information Package Formats and Procedures;
- Staff Training and Supervision; and
- Forward Planning.

1. Creating a Project Data Base

The task of "guiding and monitoring the abstracting of projects" was incorporated into PCI's contract by amendment only after a PCI and AID review of project abstracts indicated that AID's first abstracts did not adequately define projects in Logical Framework terms or through "key word" locators. The task assigned to PCI involved an intervention in the activities of a second contractor.

The intervention PCI was to undertake included providing training in the Logical Framework Approach for the contractor staff and subsequent reviews of the work products of this staff. While the task proceeded fairly smoothly, it highlighted basic differences between the work of DS/DIU/DI's information analysis cluster and its abstracting cluster. These differences may require attention by DS/DIU/DI in the future.

The difference between the two clusters is not an unfamiliar one on information systems work: Those who prepare the inputs for an information system

perceive the system and its elements in a way that differs from the perception of those who work with system outputs. Simply put, abstracting teams can meet their responsibilities by entering data according to a set of guidelines. The real value of the manner in which these guidelines are followed is not a central focus of or constraint in their work. In contrast, Information Specialists are highly dependent on the quality and coherence of the abstracting team's output--poorly written and coded abstracts can impede the efforts of the Information Specialists to fulfill their responsibilities.

2. Information Package Formats & Procedures

Eight of the 12 tasks assigned to PCI fell within this general area. The approach PCI followed for arriving at a set of procedures that could be used by the Office of Development Information packages involved three steps. The three steps in this process were:

- Define the theoretical contents of information packages and prepare sample packages using these definitions;
- Test sample packages with their potential clients and secure feedback;
- Prepare final instructions for creating information packages, as modified by the foregoing process.

For two of the DS/DIU/DI information response modes, i.e., the semi-automatic and the automatic packages, a great deal of refinement was required between Step 1 and Step 3 of the process PCI and the Office of Development Information used. A post-facto review of the approach suggests that a good deal of time and effort could have been saved by involving users in the package design process at an earlier stage. As DS/DIU/DI looks toward the future and considers the development of new types of information products, it would be well advised to act upon this lesson.

3. Staff Training & Supervision

While only two PCI tasks focused on staff training and supervision, this is one of the areas where the results appear to PCI to have strengthened the development of DS/DIU/DI in a number of important ways. DS/DIU/DI's successes, in PCI's judgment, are better explained in terms of its staff than by its information base or automated systems. Further, it is the motivation and basic attitudes of that staff, rather than their past experience or education and skills, that are fundamental to DS/DIU/DI's success. Specifically, it is PCI's judgment that the effort to foster a perception on the part of the Information Specialists that (a) their clients are their users, their remote supervisors and their ultimate judges and (b) the definition of quality work by an Information Specialist subsumes the notion of a "timely" response, have played a critical role in making DS/DIU/DI effective.

4. Forward Planning

A plan for the future must be dynamic in a unit such as the Office of Development Information. Periodic reviews that involve all elements of the Office and take into account performance against past plans, user feedback, and changes in the Agency's programs and priorities are essential to the viability of the organization. At three points since it began working with AID toward the establishment of a viable Office of Development Information, PCI assisted in the process of creating forward plans: In the design stage (under Contract AID/otr-C-1377, Work Order #2), in an interim period between that contract and the contract addressed by this report during which a Logical Framework was created for the pre-operations phase of DS/DIU/DI's development, and finally at the end of the period covered by Contr ct Number AID/otr-C-1501, when PCI assisted DS/DIU/DI in creating a new Logical Framework for future activities.

In the first two of these forward planning exercises, the data required to facilitate planning was available. The lack of an AID "memory" had been

well documented and information on the nature of AID's project files, technical libraries, systems capacity, etc., had been secured. During the third forward planning exercise there was a marked lack of basic data. Little systematic data was available concerning user reactions and less was known about the actual uses made of information provided by DS/DIU/DI to its clients. In addition, the final forward planning exercise PCI undertook with DS/DIU/DI suffered from the absence of a critical review of the degree to which the full set of objectives outlined in the report Establishing a Development Information Service were being addressed and achieved.

In part, the constraints under which the Logical Framework developed at the end of the contract period was prepared are a function of the timing of that exercise: It took place at a point where PCI was in the process of transferring responsibilities to AID's direct hire staff, but it preceded the timing of DS/DIU/DI's own management assessment of what had been accomplished by the Office. Yet despite the difficulties imposed by the timing of the exercise and the absence of useful evaluative data, this final planning exercise succeeded in outlining many of the activities DS/DIU/DI's direct hire staff would need to undertake once the PCI team terminated its work.

C. ACCOMPLISHMENTS TO DATE

In this subsection PCI reviews the results of its work as reflected in DS/DIU/DI's achievements at the Output, Purpose and Goal levels of its Logical Frameworks. The section also examines the validity of Assumptions made concerning the project hypotheses.

1. Output Level Performance

The Outputs known to be necessary if a viable and cost-effective DIS was to be established and made operational were recorded in two Logical Frameworks

(Figures I-1 and I-2). These two sets of Outputs are presented below in the order in which their creation was required.

Pre-Operations Phase Outputs (from Figure I-2, dated 1/14/76)

1. Core DIS staff on board and other resources secured;
2. DIS memory functioning for limited scope;
3. DIS-assisted project design completed;
4. Further DIS development planned;
5. Logistics and library activities set forth.

Initial Operations Phase Outputs (from Figure I-2, dated 8/75

1. Full-scale information analysis support provided for important project or class of projects;
2. Based on (1) above, standard (semi-automatic) packages prove valuable to USAIDs;
3. Procedures and organization established to ensure effectiveness of automatic, semi-automatic and special response modes:
   - 3.1 Organization and staffing defined based on alternative work loads;
   - 3.2 Space and equipment projections and budgets;
   - 3.3 Procedures for liaison with other information sources, libraries and other AID systems.
4. DIS utilization demonstrated to field and AID/W planners and managers;
5. Procedures for continuing evaluation and improvement of DIS.

In the following paragraphs, PCI reviews the progress made in producing these two sets of Outputs.

a. The Status of Pre-Operations Outputs at the Start of Initial Operations

The following summarizes the status of the pre-operations Outputs at the beginning of initial operations:

(1) Core Staff On Board & Other Resources Secured

As of July 1976, when PCI began work, the core staff did not yet include direct hire Information Specialists. The positions of Director, Deputy Director and office secretary were all filled. The DIS short-fall in the area of core staff development had an immediate implication for PCI's work: Information packages could not be prepared without an Information Specialist staff. In order to reduce the effects of this short-fall, it was determined that PCI should provide Information Specialists for the Office of Development Information on a temporary basis.

(2) DIS Memory Functioning for Limited Scope

The Office of Development Information used a team of contract personnel to abstract the first set of Agency projects. By August 1976, the Office of Development Information had completed the bulk of the abstracting for projects in the 100 series of the PBAR codes, i.e., those which dealt with food supply and begun the process of entering data on these projects into the automated system. While the quantity target for this Output had been partially met by the time PCI began work, a review of the quality of the abstracts suggested that a good deal of remedial work was needed. Following this review, PCI was asked to take over the task of guiding and monitoring the development of project abstracts.

(3) DIS Assisted Project Designs Completed

This exercise, which was expected to require a substantial level of effort and take roughly four months, was never carried out. The purpose of the exercise was to ensure that DS/DIU/DI's personnel fully understood what types of information its future clients needed and would use. The lack of a core staff of Information Specialists, together with related resource and time constraints, led AID to delete this exercise from the pre-operations Output requirements.

(4) Further DIS Development Planned

In August 1976, the Office of Development Information was still undertaking activities aimed at producing the pre-operations Outputs. Thus, rather than attempt to plan future operations during the final stages of the pre-operations phase, the Office of Development Information incorporated a requirement for the development of a forward plan into the PCI technical assistance contract.

(5) Logistics & Library Activities Set Forth

By August 1976, the Office of Development Information had acquired the AID Reference Center and begun developing approaches for linking the DIS to other automated AID systems and other Agency and external collections.

b. Progress in Creating the Outputs for the Initial Operations Phase

The Office of Development Information's progress in producing the Outputs for this phase of its development is reviewed below.

(1) Full-Scale Information Analysis Support Provided for Important Project or Class of Projects

To accurately assess performance against this indicator, it is first necessary to review what had been intended by the term "full-scale information analysis support". A description of intent, found in the report Establishing a Development Information Service, identifies the five types of information "files" that Information Specialists would be expected to use. The five "files" were:

- The Project File;
- The Country and Program Data File;
- The Special Studies and Evaluation Data Base;
- The Context Data File;
- The Technical Data File.

DS/DIU/DI's Information Specialists are constrained by the limited progress made in creating each of the five "files" described above. Due to this constraint, the information packages developed for the pilot tests must be considered incomplete. Further, it is important to note that some of the constraints on completeness that faced those who developed the first information packages persist today.

In the initial phase of DS/DIU/DI oeprations, when the "pilot" response packages were being developed, assessments of the "benefits" and "preparation time" associated with information packages were carried out. The "benefits" of DS/DIU/DI's information packages are discussed under (2) below. "Preparation time", while not a full substitute for a cost measure, was considered by DS/DIU/DI and PCI to be the critical dimension in which trade-offs could be made. The time assessments, which are fully described in Volume Two of this report, indicated that users wanted information quickly and that their need, early in the project design process, was for a summary of DS/DIU/DI holdings on a topic or type of project. Once DS/DIU/DI became aware of the needs of

its clients, interest in "academic" cost/benefit assessments diminished. DS/DIU/DI responded to Mission needs directly: It revised its plans for "semi-automatic" packages and created in their place the "quick response". "Quick responses" could be (and were) followed-up at the request of the user with more complete information packages. Since these follow-up responses, like "direct queries", were tailored to individual needs, the question of standard or "average" costs became moot, except at the level of an overall office budget.

(2) Standard (Semi-Automatic Response) Packages Prove Valuable to USAIDs

During the initial year of DS/DIU/DI's operations, a sizeable number of semi-automatic responses were prepared. As noted above, DS/DIU/DI and PCI found the time required to prepare semi-automatic packages in this form to be excessive. DS/DIU/DI's shift to "quick responses" allowed the Information Specialists to prepare three to four quick responses every two weeks.

In addition to the shift toward a "quick response" form of the semi-automatic package, DS/DIU/DI, in the second year of operations, shifted its emphasis from semi-automatic to direct responses. What was an even balance between semi-automatic and direct responses in 1977 became a concentration on direct responses in 1978.

Given this dramatic shift in the composition of DS/DIU/DI's portfolio of responses, an assessment of performance against the original indicators of success was difficult, at best. Nevertheless, some information concerning the perceived value and actual utilization of information packages is available, and can in some ways be considered to include an assessment of the semi-automatic response mode.

Evidence of the perceived utility of the "semi-automatic/quick responses" was solicited from the Missions in several ways: By cable, in the FY80 ABS instructions, in field tests, during discussions with Mission personnel who

visited Washington, etc. The testimonial evidence and the feedback gathered in these ways, while generally positive, is not necessarily representative. Individual commentators also made suggestions for improving information packages.

During the summer of 1977, PCI staff members and one of the Office's summer interns examined project documents that had been developed after Missions had received an information package from DS/DIU/DI. In the few project documents PCI was able to locate, there was virtually no way of telling whether or how the information provided by DS/DIU/DI had been incorporated into the project design process.

To the best of PCI's knowledge, DS/DIU/DI still has little information on the uses of the information packages it prepares. The indirect evidence DS/DIU/DI does have concerning the utility of its products is its "repeat business". While such evidence is indirect, it strongly suggests that field personnel and other clients are finding ways to utilize the information they receive.

(3) Procedures & Organization Established to Ensure Effectiveness of Automatic, Semi-Automatic and Special Responses

As of June of 1978, procedures existed, in revised form, for the preparation of each type of response mode envisioned for DS/DIU/DI. In addition, procedures for preparing "quick response" versions of the semi-automatic and direct response packages had been prepared and were in use.

Since early 1978, the Office of Development Information has been understaffed in its Information Specialist section. Up to the end of 1977, the cluster of Information Specialists were engaged in a work program that included:

- Preparation of response packages for all approved PIDs;
- Preparation of responses to all direct inquiries; and
- Preparation of automatic packages as warranted.

By early 1978 the Missions knew of the existence of DS/DIU/DI and the flow of requests to the Office increased substantially. At that point, the Office had to begin cutting back on its services because of a lack of Information Specialists. The choice DS/DIU/DI made was to reduce service in the semi-automatic mode and to continue to respond to all direct requests. The choice was a pragmatic one: Field staff who had sent in a request expected a response; the authors of approved PIDs did not necessarily expect to receive an information package. However, this choice may have changed the composition of the DS/DIU/DI user universe in ways that are not desirable.

A review of the workload DS/DIU/DI faces at full capacity (i.e., including automatic, semi-automatic and direct responses) and a detailed review of the number of Information Specialists required to handle this workload, appears to be warranted.

During the initial months of DS/DIU/DI operations, the question of space was a critical one and a good deal of top management attention was devoted to the issue of a physical location for the Office of Development Information. Once this problem was resolved, question of space and equipment took on a more routine character.

Throughout the PCI contract period, the Office of Development Information was involved in an evolutionary process of developing contacts and arrangements for acquiring and using information stored within the Agency and by other facilities. This process, begun during the initial operations phase is one that has no natural termination point. Rather, DS/DIU/DI Information Specialists are carrying on a self-improving program of "outreach" that will continually identify new sources of information and make them accessible.

(4) DIS Utilization Demonstrated to Field & AID/W Planners & Managers

For the most part, PCI's discussion under (b.2) above covers the progress made by DS/DIU/DI in demonstrating the utility of its services. One additional set of facts worth noting under this general heading is the response to DS/DIU/DI by other AID/W offices that have used its automated data base. AID/W has not only been a consistent user of DS/DIU/DI, it has undertaken some novel searches that have led to the development of new types of information packages.

(5) Procedures for Continuing Evaluation & Improvement of DIS

DS/DIU/DI has received support from the Agency in the establishment of a feedback process. DS/DIU/DI has not, however, undertaken a systematic evaluation effort that would allow it to make valid generalizations about the effectiveness of the Office as a whole and about each type of response package it provides. The creation of an adequate evaluation mechanism is a task that remains before DS/DIU/DI.

2. The Linkage from Outputs to Purpose

In any project or program, the production of Outputs is considered to be a necessary precondition for Purpose level achievement. However, the Outputs are not always the only conditions that must be in place if a program or project is to succeed. In most situations, there are some factors or Assumptions which are outside the span of the project's control, but which must operate as predicted if Purpose is to be achieved. In this subsection, PCI examines critical Assumptions which were expected to contribute to DS/DIU/DI's Purpose level success, including:

- The information that is needed by project designers and managers exists; it simply needs to be located, organized and forwarded to them;

- Offices other than DS/DIU/DI would establish useful, high quality data "files" in four topical areas: Country and program information, technical information, context information and special studies/evaluation information;

- The Agency would make available the resources necessary to operate DS/DIU/DI on a continuing basis.

In the following paragraphs, PCI examines the degree to which these Assumptions proved to be valid.

a. The Existence of Pertinent Information

As PCI's report suggests, the Assumption that adequate information exists in raw form appears to be valid for a number of information categories. The notable exception is evaluation where the body of knowledge about effectiveness and impact is inadequate.

b. The Creation of Information "Files" by Other AID Offices

As discussed in Volume Two of this report, AID did not fully develop all of the information "files" discussed in the original report Establishing a Development Information Service. The absence of complete working "files" covering country and program data, technical information, context data and special studies and evaluations have affected the quality and utility of DS/DIU/DI's information packages. The absence of evaluation data for Agency projects has proven particularly problematic. Given the uneven development of these files, DS/DIU/DI Information Specialists face an almost daily trade-off: Delay sending packages until information that is pertinent can be found and organized or meet deadlines by limiting the scope of responses.

c. The Continuing Availability of Resources

AID has continued to provide support for the operation of the Office of Development Information. However, these funds, and human resources, have not proven adequate to meet all of the demands for information from DS/DIU/DI. The Office has been forced to make choices about which demands have priority. At present its answer is "direct inquiries". DS/DIU/DI has, in effect, abandoned its original plans to provide semi-automatic responses for all approved PIDs and automatic responses whenever new topics and development assistance approaches emerge. The choices DS/DIU/DI has made mean that only a portion of the Agency benefits from its existence.

3. Achievements at the Purpose Level

The success of DS/DIU/DI in becoming a viable and cost-effective unit that provides pertinent information to project designers and managers on a timely basis was examined in a number of documents prepared by the Office of Development Information during 1977 and 1978.

A review of these documents provides some evidence of the type that would be needed for an evaluation of DS/DIU/DI's performance at the Purpose level. However, none of these documents (nor any subsequent summaries of which PCI is aware) adequately examines the question of whether DS/DIU/DI's clients are receiving (a) the right kind of information, (b) adequate information, or (c) information that is actionable, i.e., can be used as a direct input in the project design and management process. Without follow-up studies by DS/DIU/DI on its packages, the only strong evidence of effectiveness is evidence about "demand", particularly that segment of "demand" that can be attributed to multiple time users of the services of the Office. Yet even this proxy information is far short of what is needed to accurately judge the quality, adequacy and usability of information DS/DIU/DI provides to its clients. DS/DIU/DI's lack of solid, statistically representative data on the merits of its information packages suggests that additional attention

to evaluation would benefit the Office in two ways: It would help demonstrate the value of DS/DIU/DI and it would provide actionable feedback to the Office's Information Specialists.

4. Purpose to Goal Assumptions

As suggested at the beginning of this section, the main Assumption AID made concerning the Purpose to Goal hypothesis for DS/DIU/DI was that information provided by the Office of Development Information would be used. The limited evidence in this area was discussed in the preceding subsection.

5. Goal Level Achievement

In this subsection, PCI reviews the question of whether AID's project designs have changed and what factors may have caused these changes.

DS/DIU/DI has prepared three types of information packages that might be used by project designers to improve design submissions: Semi-automatic responses, automatic responses, and direct responses. Expectations about how these information packages might influence project designs including the following:

- Semi-automatic packages, which are developed after PIDs are approved, could result in changes and improvements in PPs, implementation plans and evaluation designs;
- Automatic and direct response packages, which are developed without regard to the project cycle for a specific project, could result in changes and improvements in PIDs, PPs, implementation plans and evaluation designs.

The best direct evidence of effect would be found in cases where real changes and improvements in design documents are made and (a) are attributed to DS/DIU/DI by AID personnel or (b) can be shown to document reviews to be related to DS/DIU/DI packages. Hardly any evidence of either sort exists.

Indirect evidence of effect might be discovered by a comparison of the quality of PIDs and PPs prepared before DS/DIU/DI began sending out information packages with those which have been prepared more recently. No formal comparison of this sort has been undertaken. However, PCI, in the course of other contract work for AID, has informally compared older project documentation with more recent PPs. The findings from these reviews have indicated that recent PPs provide more backup documentation than was the case in earlier ways.

The problem of attributing changes in the volume of backup documentation for PPs to DS/DIU/DI is substantial. Further, it is important to note that additional documentation is not necessarily a measure of "better design"; it simply assesses the bulk of the design documents. Other indicators of design "goodness" might include the speed and ease of design review procedures, the speed with which work on a project begins after approval (i.e., time not spent in examining implementation issues after approval), the Agency's ability to disburse funds per the design schedule, etc. However, it is again the case that if such measures were made, there would be difficulties in attributing improvements to DS/DIU/DI rather than to some other factor.

6. Beyond the Goal Level

As the extended logic of DS/DIU/DI's objectives indicated, the only adequate measure of whether project designs are "good" is the effectiveness and impact of projects that implement these designs. Information of this sort is simply not available at the present time.

Despite the difficulties of associating DS/DIU/DI's immediate results with these higher levels of objectives, it was PCI's experience that the staff of the Office was both aware of the problems and working to understand their ability to influence the achievement of these "above the Goal level" objectives.

The problematic nature of the hypothesis concerning the relationship between project design documentation and effective, high impact projects has been a

matter of concern for the Information Specialists. Because they are focused on the Supergoal of "effective development projects", the staff of the Office of Development Information is highly sensitive to the ways in which their own effectiveness, their contribution, is constrained by the absence of adequate evidence about what types of projects actually yield social and economic benefits for the poor in the developing countries.

Perhaps the most important funding from PCI's review of potential indicators of DS/DIU/DI's Goal and Supergoal achievements is that there is a lack of standards against which "good/bad" design documents or "good/bad" projects are judged. Thus AID's project designers and managers, and hence DS/DIU/DI, end up applying subjective criteria in judging their work. This will continue to be the case until AID empirically defines:

- What types of projects do and do not yield specific types and levels of social and economic benefits for the poor, under known socio-cultural, economic, physical and political conditions;
- What is needed by way of project design information and documentation to mount projects that will provide these benefits; and
- What portion of the needed project design information can best be provided by a centralized information service such as DS/DIU/DI.

Section 3

Recommendations

PCI's final report on this engagement has examined both the work carried out under Contract Number AID/otr-C-1501 and the efforts undertaken by AID itself in the course of establishing an Office of Development Information for the Agency. In this section of the report, PCI examines DS/DIU/DI's opportunities to make improvements in the services it provides.

A. GENERAL CONCLUSIONS

In 1975, the Office of Development Information was simply an idea. Today it is a functioning unit within AID's Development Support Bureau. This final report has presented the historical record of DS/DIU/DI's development and examined the evidence of achievement at the Output, Purpose and Goal levels of the Logical Frameworks developed during the earliest phases of DS/DIU/DI's existence. While the evidential record in some areas is sparse, the overall picture of DS/DIU/DI's development is fairly clear:

- The Office has developed along the lines envisioned by the 1975 design study;
- Today it has a clientele within AID and in other organizations that are involved in the process of designing and implementing development assistance projects;
- The Agency as a whole has gained self-knowledge through the creation of DS/DIU/DI:

  - It now has a relatively accurate picture of the types of development assistance efforts it has designed and implemented over roughly a ten-year period;

  - It has the ability to rapidly identify, with reasonable though not complete accuracy, where and when different types of projects were undertaken and what is known about their implementation and their impact.

- DS/DIU/DI's continued existence and the demand for its products expressed through direct inquiries provide rough measures of its viability and perceived utility.

- However, DS/DIU/DI does not today provide all of the services that it was originally expected to provide. Its small staff responds to all the direct inquiries the Office receives, but it is not able to produce the full range of semi-automatic and automatic responses that it was anticipated DS/DIU/DI would prepare.

- Further, the response packages produced by DS/DIU/DI are not always as informative as had been hoped. The Agency's lack of project impact data, the fact that AID did not fully develop all five of the information "files" contemplated in the original design as well as remediable flaws in the coding and key wording of projects in the data base that DS/DIU/DI manages all affect the quality and potential utility of DS/DIU/DI's products.

As this summary of DS/DIU/DI's current position suggests, the opportunities for improving the Office's services are of two types: Those which DS/DIU can act upon without the assistance of other Agency offices and those whidh require the cooperation, participation and support of other parts of AID.

B. RECOMMENDATIONS

AID has made a significant investment in the creation of an Office of Development Information. That Office is now a functioning unit on which AID's project designers and managers depend for information that can be used in connection with project design and implementation. The investments AID has made to date in DS/DIU/DI have translated an idea into a reality. However, since DS/DIU/DI exists in a changing environment, it too must be prepared to change: To grow and improve or, by default, to lose its dynamic, self-improving

character. The one thing that will be virtually impossible is for DS/DIU/DI to retain its current effectiveness without changing as its user's needs and the universe of potentially relevant information changes.

DS/DIU/DI, which operates under staff and information constraints, today provides services that begin to approximate early expectations concerning the Office's potential. There are, however, noticable differences between AID's original conception of DS/DIU/DI and the Office as it stands today. These differences, if addressed, could bring DS/DIU/DI to full capacity and significantly improve the quality and potential utility of its products to the Agency.

PCI recommends that AID undertake a series of remedial and developmental actions to capitalize on the progress it has already made in creating a full-scale information analysis center within the Agency. Our recommendations are divided into two categories: Actions that DS/DIU itself can undertake and actions which cannot be undertaken without the support of other parts of the Agency.

1. Action Recommendation for DS/DIU/DI Implementation

PCI recommends that DS/DIU/DI implement an action program to improve the quality of its service products. The elements of this program should be designed to:

- Eliminate flaws in the Office's automated data base that limit the accuracy of its answers and demonstrably improve the degree to which data base printouts provide a full picture of project activity in a given area. The specific actions DS/DIU/DI could take in this regard include:

  (a) Identify discrepancies in the projects identified by searches carried out using different approaches, i.e., key word searches versus PBAR code searches;

  (b) Increase the number of projects that can be located for clients who are interested in current topical areas by periodically

reviewing the key words for all projects on file and adding newly developed key words where appropriate, e.g., "participation" and "labor-intensive" are both identifying terms that have gained currency in the last few years. An update of all project key words could be used to add terms of this sort to projects not previously key worded in a manner which would result in locating them in, for example, a search for all "labor-intensive" projects;

(c) Add approved PIDs to the data base, even before they are developed into final PPs. The addition of approved PIDs would result in printouts that more completely define the number of activities AID has initiated in a given area and would suggest to the system users where they might find colleagues who are interested in some of the newer types of development assistance projects the Agency is undertaking.

- Increase the integration of the abstracting and information specialist clusters and upgrade the skills in both clusters by:

  (a) Periodically placing staff from the abstracting and information specialist clusters on short-term rotation assignments, i.e., each abstractor should have some first-hand experience in creating packages using the information put into the data base and each information specialist should have some first-hand experience in creating project abstracts and assigning key words;

  (b) Periodically updating the training and orientation materials for new staff in both clusters, and providing "refresher" and "staff development" sessions for old staff.

- Improve the Office's understanding of what products its clients need and how they use them by:

  (a) Periodically surveying past requests and packages to identify service patterns and changes in those patterns over time;

  (b) Undertake a more structured program of evaluation within the Office, e.g., develop and use approaches for collecting data that will indicate what segments of the Agency actually receive DS/DIU/DI products, what types of Agency personnel are either unserved or underserved by DS/DIU/DI, how Agency personnel say they use the products they receive from the Office, including the evidence these staff members suggest demonstrates utilization, etc.

  (c) Undertaking an active program of product improvement and new product definition that includes:

- Participation of DS/DIU/DI staff in all stages of the design of one or two new Agency projects in a way that will allow the staff to examine when and how DS/DIU/DI information feeds into that process (i.e., carry out the exercise that was planned for the initial operations phase of DS/DIU/DI's development but was never undertaken);

- Create "new product" development teams that include users, i.e., secure the participation of field and AID/W staff who are in Washington in "new product" seminars, at least semi-annually. This process will not always generate "new products" but even when it does not, DS/DIU/DI should expect that the process will stimulate refinements in and reconsideration of existing products and approaches;

- Take full advantage of staff field trips to examine "new product" needs in the Missions and to gather data on how current products are utilized;

- Periodically examine and update the forward-looking Logical Framework for the Office;

- Undertake an analysis of the work load at full capacity, i.e., if all the packages DS/DIU/DI might create were created, and of the work force. Establish productivity indexes that will allow DS/DIU/DI to accurately estimate the number of staff it requires to carry out various work load levels. Identify the current shortfall for review by the bureau and Agency.

2. Action Recommendations for Implementation by DS/DIU as a Whole

DS/DIU encompasses more than simply the Office of Development Information. Within this unit AID has one of the primary collections of information that is used by DS/DIU/DI Information Specialists and others in the Agency to locate technical and project related materials. This collection, which contains all of the material acquired with the AID Reference Center as well as new materials acquired since the creation of DS/DIU is not easy to access. Its role as a resource to the Agency could be dramatically improved if DS/DIU:

- Key words the holdings of DS/DIU that are not part of project files in DS/DIU/DI using the same key words that are used in DS/DIU/DI's data base;

- Automates the entire card catalogue of AID Reference Center and other DS/DIU holdings once key words have been assigned to each item;

- Creates links between the project data base and the new key worded card catalogue data base that would enable Information Specialists to generate printouts of all holdings that have the same key words as they use to call out project abstracts in response to a query.

By automating this set of materials, DS/DIU would both eliminate unevenness in the DS/DIU/DI response packages with respect to their reporting on DS/DIU's non-project holdings in a particular area and more closely fulfill the request made by field personnel at the time of the pilot tests to have "quick responses" that identified what information DS/DIU/DI could forward to the Missions.

3. Actions for Implementation by the Agency on Behalf of DS/DIU/DI & Its Clients

There are a number of actions that should be taken if DS/DIU/DI is to operate at full capacity as the Agency's information analysis center that cannot be undertaken by DS/DIU alone. In this category, the following recommendations are offered:

- Not all of the Agency information that should reach DS/DIU for processing by the AID Reference Center or by DS/DIU/DI actually reaches these units. To rectify this situation, the Agency needs to strengthen its requirements and enforcement procedures for the submission of materials to DS/DIU. Such requirements and enforcement procedures are needed to increase the flow of two types of documentation to DS/DIU/DI:

  - Project documentation from the Missions and AID/W offices;

  - Materials produced under contracts and other arrangements by universities, contractors, PASAs, RSSAs, etc.

- Five information "files" were originally identified as hypothetically containing the full set of material required to create exemplary, high-quality information packages for AID's project designers and managers. At present only a portion of these "files" exist; only one of the five is actively managed by DS/DIU/DI. To redress this

situation and move in the direction of a full capacity Office of Development Information, PCI recommends that the responsibility for all five information "files" be placed in DS/DIU, i.e.:

(a) Transfer the staff and materials which now exist and would be a part of completed files in the areas of country and program data, technical data, evaluation/special studies holdings, and context data into DS/DIU from other Agency units;

(b) Give DS/DIU the responsibility and adequate staff to create the files which have not yet been established, e.g., the Context File, and to upgrade those files that have only partially been developed.

- DS/DIU/DI now produces only a portion of the response packages it was designed to produce due to work force constraints. PCI recommends that, with DS/DIU/DI, the Agency examine:

(a) What loss is occurring because some of the DS/DIU/DI products are not being produced, i.e., who is unserved/underserved relative to probable need and the potential for putting information to use in the project design and implementation process;

(b) The magnitude of the shortfall, i.e., the discrepancy between full capacity work load and current work force;

Based on this review, PCI recommends that AID adjust the ceiling for DS/DIU/DI Information Specialists to ensure that all of the responses AID and DS/DIU/DI determine should be produced are in fact produced.

PN-AAH1-065

THE CREATION OF AID'S DEVELOPMENT INFORMATION ANALYSIS CENTER

A Report on DS/DIU/DI

Volume II: Plans and Results

Submitted to:

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Section 1

Objectives and Plan

On July 1, 1976, the Agency for International Development signed a contract with Practical Concepts Incorporated (PCI) for assistance in the creation of a Development Information Service, which today is known as the Office of Development Information, within the Development Support Bureau (DS/DIU/DI), continued until June 30, 1978. This final report is submitted to AID in accordance with the requirement of Contract Number AID/otr-C-1501. The report, which consists of three volumes, summarizes the original objectives of the contract, subsequent modifications in the contract scope of work, tasks accomplished during the engagement, and recommendations for the further development of DS/DIU/DI.

This, the second volume of the report, provides a detailed review of the course of the engagement. Within this volume, Section One focuses on the objectives of PCI's assistance to DS/DIU/DI and on the historical context in which AID commenced work on the creation of a Development Information Service. Subsequent sections compare actual to expected results, assess these results and recommend actions AID might take to strengthen the information services and analysis capacity of the Office of Development Information.

A. BACKGROUND

In August, 1975, the Agency for International Development received a set of recommendations for establishing a Development Information Service that would provide AID project designers with useful information, integrate a number of existing Agency information activities, and, over time, realize its potential for becoming AID's primary development information analysis center. Those recommendations, which were developed under Contract Number AID/otr-C-1377, Work Order #2, promised important improvements in the management of information pertinent to project design. Further, it anticipated the development of procedures by which appropriate portions of AID's "memory" as well as technical and contextual imformation, would be transmitted, on a timely basis, to Agency Staff around the world. Annex A, at the end of this section, describes in greater detail the historical context in which PCI's 1975 report on Establishing a Development Information Service (DIS) was developed.

At the time PCI prepared this report, AID was spending more than $2,000,000 per year on information services, yet AID project designers were not being provided with the information they needed. PCI's report concluded that increasing the level of effort and dollar volume of information services along the lines AID was then following was not a constructive approach for addressing the Agency's real information needs. Instead, it was recommended that the Agency establish a Development Information Service (DIS), as an information analysis center, per the following definition of that term:

> "An information analysis center is a formally structured organizational unit specifically (but not necessarily exclusively) established for the purpose of acquiring, selecting, storing, retrieving, evaluating, analyzing, and synthesizing a body of information in a clearly defined specialized field or pertaining to a specified mission with the intent of compiling, digesting, repackaging or otherwise organizing and presenting pertinent information in a form most authoritative, timely and useful to a society of peers and management."

The estimated cost of developing and implementing such an analysis center within the Agency for International Development was $800,000, to be spent

over roughly 18 months, during which time information products would be provided to USAIDs on an experimental basis. The annual operating budget for a fully operational Development Information Service was estimated to be approximately $340,000. Contractor assistance was recommended during the initial development and implementation stages of an effort to establish a viable Development Information Service with AID.

AID's review of PCI's 1975 report led, later that year, to a decision to develop an Agency information analysis center. By January 1976, AID had announced the establishment of a Development Information Service, appointed a Director (Mr. W. Carter Ide) and Deputy Director (Mr. Maury Brown), initiated incorporation of the AID Reference Center into the new Development Information Service and hired a contractor to determine the requirements for a partially automated information storage and retrieval system. AID also initiated steps that would lead to the hiring of permanent staff for the Development Information Service and a contract for technical assistance in bringing the Development Information Service from a conceptual to an operational stage.

The development and installation plan AID adopted for the DIS was a modification of the plan presented in PCI's report on Establishing a Development Information Service (DIS). The modified version adopted by AID did not incorporate an option for a fully automated information storage and retrieval system with remote (USAID) as well as centralized terminals. Further, AID determined that the emerging Development Information Service could be best be fostered if placed within an existing Agency bureau rather than managed by either an Agency-wide committee or a Board of Directors. The bureau selected by AID as the initial home of the Development Information Service was AID's Program and Policy Coordination Bureau (PPC).

B. KEY REQUIREMENTS FOR EFFECTIVE IMPLEMENTATION AND OPERATION OF THE DIS

The Development Information Service was initially envisioned as a service organization with AID. Its proposed salient characteristics are described below in the words of PCI's 1975 report:

- "The DIS is oriented towards obtaining, maintaining, and providing decision-driven information. That is, the information of interest derives from the real needs of project designers to make decisions concerning alternative project strategies.

- The DIS provides analytic, not descriptive, information. Rather than giving a user the full body of information related to his projects, DIS performs the analytic task of culling the literature and synthesizing an information package explicitly tailored to his needs.

- The key point is access to, not physical possession of, the data needed. The Agency need not and should not commit itself a priori to collecting and maintaining a comprenensive body of data, but should instead mount an aggressive program to obtain data from existing sources external to AID.

- The DIS is oriented to information users rather than information sources. Its mission is to determine what information project designers need and get it for them, in the form they need it and when they need it.

- The DIS will bring to the Agency a new orientation toward information and library sciences, with staff who will work directly with information users to ensure that their needs are fully met.

- The DIS will use both conventional and unconventional storage and indexing techniques as suited to the job at hand.

- The DIS will use the current AID Reference Center and other libraries on an as-needed basis, and will improve techniques for indexing and retrieving project, program, and project specific information.

- The DIS will maintain a comprehensive file of "AID-unique" data, concentrating on current information.

- AID memory will emphasize retention of evaluation data, and of the dissenting points of view presented in preproject documentation.

- The DIS will not attempt to duplicate information collections where those collections are already adequate for AID needs. It will provide access to those collections and will codify them as required to provide AID users with:

  a) Condensed statements of the state-of-the-art relevant to their needs; and

  b) Reference and access to further documentation as may be required.

- Based on interaction with the USAID project designers, DIS will produce information packages for the different project design stages in response to USAID needs and requests.

- It is envisioned that such information packages would include:

  1) Prior and current experience with similar project and programs, considering both AID and other donor activities;

  2) Codified statements of the state-of-the-art regarding relevant technical information, and relevant social, cultural and economic "context" data." *

As the foregoing statement of characteristics suggests, the Development Information Service was expected to be a dynamic organization which continually evolved in response to information needs and availability. It was expected that DIS information specialists would assist Agency staff in meeting their needs for information by routinely producing three types of information packages:

- "Automatic Responses -- descriptions of the basic materials contained in DIS memory with periodic updates as well as episodic circulation of key information products. Routine descriptive data might include lists of new publications and projects, evaluation reports, etc. Episodic information products, circulated on an as-completed basis, might include special information responses to topics of general interest (e.g., if DIS does an inventory of water resources activities, on demand for project designers in the Middle East, that information product might be circulated to all USAIDs).

- Semi-Automatic Responses -- triggered by specific types of project documentation, e.g., PIDs. Such responses would identify programs or projects having similar goals, as well as sector studies, context data, and bibliographies pertinent to issues raised by project designers. Project summaries would be forwarded for those projects where good evaluation data are available. To help project designers at the PID stage of project development, summaries of projects with similar purposes would be forwarded. Both projects

* Establishing a Development Information Service (DIS), Practical Concepts Incorporated, Washington, D.C., August 8, 1975, page I-4.

with similar outputs and those with quite different outputs would be forwarded to help the project designers consider their options with respect to how a specific development problem might be addressed.

- Direct Responses -- (issue and/or problem oriented) answers to specific requests from DIS users, i.e., USAIDS, project design teams, offices in AIDs central bureaus, contract teams, etc." *

To facilitate the production of high quality information packages by DIS information specialists, it was anticipated that the Development Information Service would need to create and maintain five basic types of information "files", including:

- Project files (containing all project unique information);
- Country and programs files;
- Evaluation and special studies files;
- Context files (that included materials on socio-cultural practices, constraints, etc.); and
- Technical files.

The term "file" was used to identify a variety of automated and manually accessed data that, in effect, would incorporate all core information pertinent to the "science of development". Easy access to these files was to be a key feature of the DIS system. Rapid access to information was to be made possible by the use of "key words", (i.e., words commonly used by AID personnel to refer to specific classes and types of development projects), numerical codes, and by using AID's Logical Framework approach to organize, store and retrieve some of the information contained in project designs.

In the report on Establishing a Development Information System, a plan for developing the DIS presented. The plan envisioned an early effort to pilot test its three basic response modes and develop procedures that could be

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* Ibid. p. II-8

applied in the development of future information packages. A partial Logical Framework was developed for the DIS. It identified the Outputs which needed to be produced during the initial operating phase of DIS development. That partial Logical Framework is presented in Figure I-1.

In reviewing the draft Logical Framework for initial operations, AID determined that several pre-operations elements of a core DIS unit would need to be created before work could begin on producing the Outputs listed in Figure I-1. The pre-operational steps that needed to be undertaken included the assignment of core staff to the unit, development of a library of project documentation, and the preparation, coding and automated storage of basic information on AID projects. As an initial step in planning the pre-operations phase of DIS' development, AID and PCI prepared a separate Logical Framework to cover the activities which AID needed to complete during the first months of DIS' existence. Figure I-2 displays this pre-operations Logical Framework. The pre-operations phase of DIS' development began early in 1976. The target date for completion of this phase was 8/31/76.

C. PCI ASSISTANCE IN ESTABLISHING THE DEVELOPMENT INFORMATION SERVICE

PCI's contract with AID to provide assistance in establishing the DIS began on July 1, 1976. The scope of work for this contract originally contained four tasks. The tasks assigned to PCI focused on the creation of Outputs 1, 2, 3.1, 1.1, 4, and 5 of the Logical Framework in Figure I-1.

The original scope of work for the PCI contract was modified several times in the course of the two year engagement. By amendment, AID added eight additional tasks to the scope of the PCI effort. The full list of contract tasks is presented below. The first four tasks were identified in the original contract.

> Prepare a response to a simulated information request and field test the output package.

FIGURE I-1

AID 224

LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date _____
Date of this Summary 1/14/76

Project Title: DIS - Pilot Phase

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Goal: The broader objective to which this project contributes: DIS fully operational and contributing to better project design.	Measures of Goal Achievement: 1. DIS providing useful information in response to 90% of queries from users involved in project design by 1978. 2. Percentage of projects completed on schedule within planned resources and having met performance targets increases to ____ by 1978 and to ____ by 1980.	1. Communication (documents) between DIS & users; 2. PBAR system (CPDB).	Concerning long term value of program/project:
Project Purpose: DIS's viability and contribution to better project design are demonstrated.	Conditions that will indicate purpose has been achieved: End of project status. 1. Next phase of DIS development approved by Agency Management by October, 1976. 2. Mission Director, Program Officer and Project Designer(s) in pilot Mission(s) affirm that DIS was useful and without its assistance the resulting project design would not have been thought through. October 1976 3. AID/W and other experts confirm usefulness of DIS information.	1. FY77 Budget for DIS; 2. Direct feedback from Mission personnel; 3. Direct feedback from AID/W personnel.	Affecting purpose-to-goal link: 1. Next phase of DIS development is carried out; 2. Project designers seek information from DIS & use it in project design.
Outputs: 1. Core DIS staff on board and other resources secured. 2. DIS memory functioning for limited scope. 3. DIS-assisted project design completed. 4. Further DIS development planned. 5. Logistics and library activities set forth.	Magnitude of Outputs necessary and sufficient to achieve purpose. 1.a. DIS staff on board by 3/29/76: - Director by 1/12/76 - Secretary by 1/19/76 - Deputy by 2/2/76 - Abstractor by 2/16/76 - Information Specialist by 3/1/76 - Information Specialist by 3/29/76 b. Contract signed for external services by 3/1/76. 2. Data available from DIS on one subject field by 8/31/76. 3. Project papers for three projects are developed, utilizing information provided by DIS by 8/31/76. 4. Development program for DIS is completed by 9/27/76. 5. DIS logistics resolved and library activities functioning by 8/31/76.	1.a. Personnel files; b. Contract; 2. Airgrams to/from DIS; 3. PPs; 4. DIS Development Plan; 5. Library.	Affecting output-to-purpose link: 1. Skills of personnel transferred to DIS meet 2. External contractor performs according to specs; 3. Missions selected for pilot cooperate.

Figure continued on next page.

Continued from previous page.

FIGURE I-1

PC1224

LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date _____
Date of this Summary 1/14/76

Project Title: DIS - Pilot Phase

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs: Activities and Types of Resources	Level of Effort/Expenditure for each activity.				Affecting input-to-output link:
1.a. Select and appoint staff. b. Select and contract for outside services.	TOTAL	AID/DIS	EXTERNAL	DIS Budget for FY76 and FY77.	1. Personnel available;
2.a. Collect and codify data on narrow subject field. b. Prepare semi-automatic package for first project. c. Evaluate package (on-site) and redesign to provide more information.. d. Collect more data if necessary. 3.a. Utilize information provided by DIS. b. Request additional information from DIS if necessary to develop PP. c. Develop project paper(s). 4.a. Evaluate quality of PP(s). b. Assess impact of DIS information on PP quality. c. Prepare plan to further DIS development based on experience obtained in pilot. 5.a. Define and implement DIS library activities. b. Specify and resolve DIS logistics.	50 MM	30 MM	20 MM		2. Funds available.

FIGURE I-2

PCI 72-6

LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN

Est. Project Completion Date _____
Date of this Summary 8/75

Project Title: PARTIAL LOGFRAME: DESIGN STUDY FOR A USAID DEVELOPMENT INFORMATION SYSTEM

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Goal: The broader objective to which this project contributes: AID Project and Program Planners have state-of-the-art information conveniently available.	Measures of Goal Achievement: 1. Semi-automatic responses deemed relevant by 90% of recipients and "very valuable" by 50% 2. Project reviews discern: --better use of experience; --awareness of technical and conceptual issues (including benefit incidence). 3. Estimated value of 1. and 2. at least double the cost of DIS.	Self-monitoring DIS system which counts responses and flags deadlines missed.	Concerning long term value of program/project: USAID planners use the information sent out by DIS in making project and program decisions.
Project Purpose: Initiate implementation of a cost-effective DIS.	Conditions that will indicate purpose has been achieved: End of project status. Implementation Phase initiated with endorsement of key Bureaus and personnel		Affecting purpose-to-goal link: Basic file automation available through PBAR initiatives.
Outputs: 1. Full-scale information analysis support provided for important project or class of projects. 2. Based on 1 above, standard (semi-automatic response) packages prove value to USAIDs. 3. Procedures and organization established to ensure effectiveness of automatic, semi-automatic, and special response modes. 3.1. Organization and staffing defined based on alternative work loads. 3.2. Space and equipment projections and budgets. 3.3. Procedures for liaison with other information sources, libraries, and other AID systems. 4. DIS utilization demonstrated to field and AID/W planners and managers. 5. Procedures for continuing evaluation and improvement of DIS. 6. Procedures for continued enforcement of utilization.	Magnitude of Outputs necessary and sufficient to achieve purpose. 1. Alternative information products--based upon differing extent and intensiveness of information support--assessed for cost and benefit. 2. Missions respond favorably to information products. Utilization of information reflected in subsequent PIDs and related project documentation. 3.1. Organizational and personnel requirements make sense in terms of availability of personnel as well as system requirements. 3.2. Realistic in making good use of available AID facilities. Cost minimized through integration of existing functions--e.g. ABC 3.3 Two-way exchange programs established with best sources; all plausible sources identified; DIS represented when planning new AID systems. 4. DIS operations simulated and proven to USAID personnel. Information packages developed following DIS procedures are deemed by recipients to have value substantially in excess of projected costs. 5. User evaluation routinely scheduled. Impact evaluations (are projects better because of DIS packages?) scheduled and include interrogation of all users of special studies. 6. Positive as well as negative incentives provided for utilization.	Simulation. Field and AID/W pilot study. Monitoring by AID managers and future users of DIS.	Affecting output-to-purpose link: Successful completion of a DIS design study.

- Compile detailed proposed DIS operating procedures.
- Design a proposed DIS organizational structure.
- Propose a plan for further DIS development.
- Guide and monitor the abstracting of AID projects.
- Provide assistance in the selection of projects to be included in the pilot tests.
- Conduct a "speed test" on the development of a semi-automatic package.
- Train two Information Specialists in the development of semi-automatic packages.
- Modify, as indicated by the pilot test, the formats and procedures for the preparation of semi-automatic response packages.
- Using experience gained in managing the preparation of direct inquiry responses, define and develop alternative formats and procedures, as are required, for routinely preparing responses in this mode.
- Manage a test by DIS information specialists of the development of an "automatic" package, in a subject matter to be selected by the Office of Development Information from among a set of topics stimulated by the PID and direct query responses currently in progress and as a result of that effort distill written guidance on procedures and formats for the development of future "automatic responses".
- Provide guidance to direct hire and contract information specialists including such new information specialists as the Office of Development information brings on board during the remainder of the contract period and provide direction and guidance to an individual appointed to manage the DIS information specialists on a permanent basis.

The tasks listed above are not a series of discrete steps in a sequential process. Rather they describe the work to be done, on an iterative basis, in several critical areas, including: operating procedures, pilot tests for specific products, staff development and a forward-looking action plan. PCI's assistance to the Office of Development Information was managed during the first year by Mr. Romano Formichella, who had participated in

PCI's initial study concerning the need for and basic design of a DIS. In the second year, the project was managed by Ms. Molly Hageboeck, PCI's Director of Program Analysis and Evaluation, who had developed the pilot information packaged PCI tested in the USAIDs and in AID/W technical and program offices.

ANNEX A

HISTORICAL BACKGROUND ON THE DEVELOPMENT OF AID'S DEVELOPMENT INFORMATION SERVICE (DIS)

The creation of a Development Information Service (DIS) within the Agency for International Development was related to the development and operation of AID's Reference Center, and a number of other information activities over a ten year period. All were expressions of the Agency's desire to take advantage of the "lessons learned" from many man-years of experience throughout the developing countries. From 1965 to 1975 a variety of task forces and committes were organized by the Agency to address the question of how "lessons" from "AID's memory" could better be incorporated into its planning of future development programs and projects. The purpose of this Annex is to summarize, in one place, the various Agency efforts that preceeded, and influenced AID's final decisions to create a Development Information Service.

As early as 1965, a management survey of AID by a private consulting firm, found that evaluation reports on projects in progress or completed projects were scarce. "Moreover, files become incomplete and their contents lost over the years," the report stated. As a result of the survey, the AID Reference Center was established in June 1966, under the direction of Edna Falbo as part of the Bureau for Program and Policy Coordination. The ARC was to be responsible for a central collection of program and technical materials related to development and development assistance, and to serve as AID's memory. "Without such a memory an organization cannot draw on its own experience and is forced repeatedly to reinvent the wheel. The ARC is an attempt to provide such a memory bank. It is to be hoped that AID employees will increasingly draw on it to help them solve their operational problems."

A room was designated, shelves moved in, and with a staff of two people, Miss Falbo began the tedious task of collecting documents. Her prime objective was to obtain programming documents, End-of-Tour reports, feasibility studies and particularly, evaluative documents, those after-the-fact appraisals of AID experience for the purpose of providing guidance that can be utilized for future program planning and execution.

With the introduction of the new project documentation system, in 1968 (mainly covering technical assistance), the need for a central file on documents on current projects was established. Its scope includes key documents such as Project Papers (PROPS) and Project Appraisal Reports (PARS), required for project planning, implementation and evaluation.

By 1974, the AID Reference Center (ARC) had located and cataloged approximately 40,000 AID generated publication-type documents and maintained approximately six, five-drawer cabinets of program planning and evaluation documents. It had published catalogs listing about 12,000 of these documents. All documents are available for loan to AID direct-hire personnel and contractor personnel.

While the ARC was filling an important function, retrieval of agency experience on a functional basis continued to be a problem and was of major concern to the various studies and surveys by both Agency and non-Agency agents and Task Forces. The literature on the ARC is voluminous, going back to Jack Ohly, the Bart Harvey Task Force of 1966-67 and the Information Systems Committee of 1968-70 (which reflected the efforts of Farrar, Kosters, Kearns, Mayer, Turner), the GSA Reconnaissance Report of 1970, the Information Documentation Resources Study, February 1971 (NARS-GSA); the Hinman Report of 7/71 entitled "Management Information Requirements for Future U.S. Technical Assistance", and the GAO Auditor Report of 5/72 which focused on the need for a special technical transfer of experience document.

The Hinman Report, which was concerned with technical information during the period when the Agency was considering establishing a separate International Development Institute, was one of the first reports to focus specifically on users of information within the Agency, and the necessity for establishing their information needs. However, the Farrar memorandum of July 1974 to the Senior Operations Group (SOG) includes the first recommendation to "establish as a priority the management of information resources."

While it took approximately ten years for the Agency to clarify its objectives and develop the focus of a user-oriented information system for project design, implementation and evaluation, it took only three years from the realization that such a priority must be set to the operational Development Information System.

This focus on a user-oriented information system was further clarified by studies of the PBAR (Project Budgeting, Appraisal and Reporting) Committee which recommended in its Report of October 4, 1974: "The procedure for storing, retrieving and disseminating basic documents reflecting past experience, and for abstracting information from such documents, needs to be strengthened." The Senior Operations Group (SOG) Task Force on Library and Information Retrieval (established in 11/74) was assigned responsibility for the implementation of this PBAR recommendation.

By November of 1974, the Agency Library and Information Retrieval Systems Task Force officially came into being. Its assignment was to review the requirements for the Agency Library and Information Retrieval System (SOG Item, II, 14). William C. Ide's memorandum for the Deputy Administrator of 11/19/74 provides a comprehensive statement of the problem and a detailed workplan for the Task Force studying the issue of information retrieval.

A further impetus to the development of a systematic information system was provided by the proposed requirements that program/project planners must study relevant prior AID experience before launching into new activities. The SOG Task Force circulated an interim report in April of 1975; their

final report of 8/8/75 recommending the establishment of a Development Information Service (DIS), "the principal purpose of which would be to support the project design efforts of the Agency."

In April of 1975, John Murphy circulated the SOG Task Force's interim report, which recommended the establishment of a Development Information Service. The Agency response, both internally and from Missions, was enthusiastic and supportive of the proposed service. The recommendations were accepted and by 9/4/75 the Agency issued a letter RFP to a study to determine the Systems Requirement Package for Automated and Manual Development Information Service.

Section 2

Inputs to Outputs

This section of PCI's final report describes the tasks undertaken and completed in the course of PCI's contract to assist AID in establishing a Development Information Service. The first part of the section is devoted to a comparison of task plans with actual performance. The second part of the section examines the linkage between these Inputs and the desired Outputs, identifying strengths and weaknesses in the approaches that were used.

A. PLANNED TASK AND ACTUAL PERFORMANCE

PCI took responsibility for twelve tasks that AID had defined as being important steps in the process of establishing a Development Information Service. The PCI tasks are reviewed in this section in roughly the order in which they were undertaken:

1. Guide and monitor the abstracting of AID projects.
2. Design a proposed DIS organizational structure.
3. Provide assistance in the selection of projects to be included in the pilot tests.
4. Prepare a response to a simulated information request and field test the output package.
5. Conduct a "speed test" on the development of a semi-automatic package.
6. Modify, as indicated by the pilot test, the formats and procedures for preparation of semi-automatic response packages.

7. Using experience gained in managing the preparation of direct inquiry responses, define and develop alternative formats and procedures, as are required, for routinely preparing responses in this mode.

8. Manage a test by DIS information specialists of the development of an automatic package, in a subject matter selected by the Office of Development Information, and as a result of that effort distill written guidance on procedures and formats for the development of future automatic responses.

9. Design detailed proposed DIS operating procedures.

10. Train two information specialists in the development of semi-automatic packages.

11. Provide guidance to direct hire and contract information specialists and to the individual appointed by the Office of Development Information to take over management of the work of the information specialists.

12. Propose a plan for further DIS development.

Task 1: Guide and Monitor the Abstracting of AID Projects

At the time PCI began work on this engagement, the Office of Development Information was also working with a second contractor who had the responsibility for abstracting Agency projects, using a format designed by AID. The basic format for recording project objectives was the Logical Framework (a design summary tool that PCI's staff had developed for AID in 1970). During the first months of work under the abstracting contract, AID found that the abstractors were having some difficulty translating statements from old project documents into Logical Framework terms. In addition, there seemed to be some ambiguity concerning what information was to be recorded in such abstract categories as "project strategy" and "problem statement". Since the PCI staff was familiar with the Logical Framework and the general nature of AID's project design documents, AID asked that we provide guidance and monitor the work of the contract abstractors as they prepared abstracts of Agency project materials.

The assistance provided by PCI in this area took three forms:

- Assistance to AID in preparing guidelines for the completion of abstract inputs forms.
- Training in Logical Framework concpets for the abstractors.
- Review of work products prepared by the abstractors.

Each of these subtasks is discussed briefly below:

1. Preparation of Abstracting Guidelines

At the request of the Office of Development Information, PCI assisted in drafting abstracting guidelines covering four topics: (a) preparing the Project Data Abstract, (b) the Logical Framework Data, (c) Related Projects Data, and (d) Bibliographic Data. Draft version of these guidelines were tested by the contract abstractor team, modified, and distributed by the Office of Development Information's Deputy Director during September, 1976.

2. Training in Logical Framework Concepts

The need to provide training for AID's contract abstractors in the Logical Framework concepts became apparent following an early review of completed abstracts. PCI called upon an experienced trainer from its staff to serve as instructor for a training session. The initial training session was quite brief. It presented the basic concepts covered in the first day of AID's Project Design and Evaluation course for direct hire staff.

The training session appeared to help the contract abstractors in carrying out their work. Rather than being a one-time activity, it became a recurrent task under the PCI contract. Each time the contractor responsible for

abstracting added new staff, or whenever AID hired permanent staff for the DIS, PCI repeated its training course in Logical Framework concepts. As time went on these sessions became more tailored. Examples from DIS were incorporated into the training materials and the sessions focused directly on the work AID abstractors and information specialists were expected to perform.

3. Work Product Reviews

During the first year of the contract, PCI periodically reviewed the work products of the abstractors. Such reviews continued on a limited basis during the second contract year. During the second year the reviews focused on the work products of newly assigned abstractors.

The most thorough review of project abstracts was undertaken in September, 1976. This review was used to: (a) monitor the work of the abstractors, (b) test the quality of the new guidance materials, which were in draft at that time, and (c) determine the amount of time required to prepare professional abstracts of AID project information. In a report to AID, PCI estimated productivity in the abstracting unit: AID could expect abstractors to complete between 1.5 and 2 projects per day. PCI also found that the concept of a "project strategy" statement was still not well understood and that an insufficient number of appropriate key words were being assigned to projects. PCI further noted that practice in using the Logical Framework concepts would be needed before the abstractors could be considered proficient. AID followed up on this PCI report, including its recommendation that the Office of Development Information seek a clarification of the concept of a "project strategy" from PPC/DPRE, the office that had suggested the inclusion of such an element in the abstracts.

Task 2: Design for a DIS Organizational Structure

While a design for the organizational structure of the DIS may have originally been envisioned as a written product, in practice, an informal process was needed that would facilitate the evolution of responsibilities as the Office of Development Information's understanding of its mission and tasks increased. Using an informal process, three main structural components evolved under the direction of the Director and Deputy Director of the Office of Development Information. These were the abstracting cluster, the information analysis cluster, and the technical materials/ library cluster. The three clusters were supervised by the Office Director and his Deputy; they were given technical support, particularly in the area of automated data processing by Mr. Lee White, a systems analyst on the DIS staff.

At the beginning of the DIS development period, the abstracting and information analysis clusters were wholely staffed by contract personnel, while the technical materials/library cluster was made up of the staff of AID's Reference Center. For each cluster a "manager" or senior staff member was identified or emerged. During the period of the PCI contract, the division of work among these three specialized staff clusters was, in effect, the organizational structure for the Development Information Service.

By the end of the contract period, each of these units had well defined roles, and understood its relationship to the other units. This is not to say that coordination was at all times smooth. Initially, the "territorial boundaries" between the information analysis unit and the technical materials/ library units were somewhat unclear. In part, the initial overlap between these units was explained by the fact that AID's field staff was used to requesting assistance from the AID Reference Center. During the first months of the DIS's operations, AID's field personnel were unaware of its existence. As the morths went on, more and more field staff became aware

of the existence of the Office of Development Information and inquiries began to be directed to the Office. Once this change occurred, the Office of Development Information was able to make internal decisions about whether an inquiry would best be handled by its information specialists or by the technical materials/library cluster.

The basic structure of the DIS has remained intact. The office, which was officially renamed the Office of Development Information in July 1976, is now housed within AID's Development Support Bureau. At the present time the Office includes a Director and Deputy Director, three staff clusters: abstracting, technical materials/library and information specialists, and a systems analyst.

Task 3: Provide Assistance in the Selection of Projects to Be Included in the DIS Pilot Tests

The pilot tests planned for the DIS information packages had two objectives. The first objective was to determine the utility of DIS information packages to the office's primary client: the AID project designer. The second objective was to use the process of creating information packages as a "learning laboratory", i.e., a situation in which DIS could carry out the process that was assumed to be required to develop an information package at the same time it undertook to document that process. In order to achieve these objectives, the pilot tests needed to be realistic simulations of the exercises DIS would conduct on a routine basis.

At the time the pilot tests were undertaken for the semi-automatic mode, only one set of projects had been abstracted and entered into AID's automated data base: projects that addressed the problem of food supply, i.e., the 100 series in the PBAR Purpose Code list. Since only the 100 series had been abstracted, the pilot test necessarily accepted

the topic of food supply as a given. In order to facilitate the selection of specific projects for the pilot tests, PCI worked with AID to develop a set of selection criteria. The project selection criteria that were developed are displayed in Table II-1.

Following an analysis of the universe of projects in the 100 series, and discussions with technical and bureau personnel, the subject area for the pilot test was further limited. The series subcode 130, which included projects that addressed a Purpose of "improved delivery/marketing systems" was selected by AID as the topical area for which pilot information packages would be developed. This category was further narrowed by a decision to select only projects that addressed the issue of small farmer credit. Projects in the area of small farmer credit met all of the criteria identified in Table II-1. Further, the subject was one that interested both Missions and AID/W. AID had already done a good deal of work on the subject of small farmer credit, including the organization of an AID "Spring Review" on the subject. AID/W found the question of whether the Missions were aware of and using information from the "Spring Review" to be of particular interest. The DIS pilot tests, by using this topic, would not only serve DIS objectives, they would also provide AID with a better sense of how its "Spring Reveiw" materials were being used by the field.

The selection of small farmer credit projects as the topical area was made in September, 1976. However, further action on the pilot tests was delayed for several reasons: remedial work was needed on the preparation of the Logical Framework sections of project abstracts, a mechanism for identifying "searchable" key words had to be developed and applied to the projects in the 100 series, and perhaps most important AID had to reach a final decision concerning the point in the design cycle at which a semi-automatic response should be interjected.

In the following months the revision of project abstracts in the 100 series was completed, and AID decided that the best point at which to interject a

TABLE II-1: SELECTION CRITERIA

CRITERIA FOR THE SELECTION OF PILOT PROJECTS

1. In AID's main stream (feedback from Bureaus).
2. Significant prior history exists--preferably in a number of locations.
3. Subject area sufficiently complex to evaluate the DIS package usefulness to program officers and to provide important feedback as to the package makeup.
4. Similar PIDs from more than a single location
   a. At least one location having had experience with similar projects.
   b. A location with relatively little prior experience in the selected subject area.
5. Elements of commonality to test the concept that a portion of the package can be common to a number of locations.
6. Several PIDs can use the package for the Project Paper.
7. One or more PIDs will use the package for the Project Review Paper.

semi-automatic response in the design cycle was following the review and approval of a PID,* (the first project authorization document in what was at that time a three step approval process).

While the steps outlined above were being undertaken, PCI began to review the Annual Budget Submissions from the USAIDs to identify potential pilot test projects. In this review PCI identified all Mission PIDs that addressed the issue of credit availability for small farmers. Based on discussions with AID, PCI further limited the set of projects that were to be considered active candidates to those which proposed the use of a cooperative organization as a primary mechanism for providing small farmer credit. This final step in the narrowing process brought the number of candidate projects down to four:

- Bangladesh: 388-0025 - Small Farm Credit
- Pakistan: 391-4230 - Small Farm Credit
- Peru: 527-0159 - Agricultural Services Rediscount Fund
- Philippines: 492-0300 - Cooperative Marketing

While AID had initially planned to conduct only one pilot test, several facts became obvious once the candidate projects had been identified: (a) the design logic of the Bangladesh, Pakistan and Philippines PIDs were quite similar, (see Table II-2), (b) if information was retrieved to create an informations package for any one of these projects, the same basic information could be used to create information packages for the

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* The decision concerning the timing of the semi-automatic response was an important one for the DIS, since the objective of this information package was to encourage project designers to consider their options with respect to the solution of a specific development problem. If AID had elected a later point in the cycle, the designer might have been "locked in" to his/her original project approach. Alternatively, while a point in time prior to the PID was thought to be optimal, there was virtually no way that DIS could know, before the PID stage, exactly what development problems the Missions would address in a given year. The DAPs (which are now known as CDSSs) were the only document at preceded a PID, and these were generally written in country or program level terms.

Table II-2: Similarities in Three PIDs

PHILIPPINES	BANGLADESH	PAKISTAN
GOAL: Increase income of small farmers and equitably distribute benefits of production.	Increase agricultural production and small farmer income.	Productivity and real income of small farmers increased.
PURPOSE: Strengthen and expand institutional structure for cooperative marketing and finance.	Design, test and evaluate three systems of small farmer credit for crop production.	Access of small and low income farmers -- owners and renters -- to credit and other necessary inputs broadened.
PROBLEM: Organizational structure of village associations and related cooperatives floundering -- lack of trained management and financial resources, the latter due to lack of government budgetary support because of unanticipated shortfalls in foreign exchange earnings.	Dearth of agricultural credit for small farmer from institutional sources -- government services and inputs more available for those with 2.5 acres or more; land generally required as collateral on loans.	Small farmers lack cash to make productive investments. Basically a liquidity problem.

other two, and (c) all three Asian countries could be visited with roughly the same travel budget as was required to visit any one. The potential economy of a three country test, together with the increased analytic power such a multi-country test promised, eventually led AID to elect all three Asia Bureau projects as the focus of the pilot DIS effort to prepare information packages in the semi-automatic mode.

Task 4: Prepare Semi-Automatic Responses for the Pilot Projects and Field Test the Resulting Output Packages

The pilot test phase of PCI's work divided into two parts: definition of the elements of a semi-automatic package, including preparation of the pilot information packages, and the field tests. Each element in this phase of the work is discussed separately below.

1. Definition of the Elements of a Semi-Automatic Information Package and the Development of Three Pilot Test Semi-Automatic Responses

The central idea of a semi-automatic information package was to provide project designers with information on what was known about developing and implementing projects that had a high probability of resolving or impacting a specific development problem. Within the body of historical data on AID projects, two types of projects were identified as being potentially useful to project designers: (a) those projects which addressed the problem faced by the designer in roughly the same manner as the designer proposed, i.e., projects that might be termed "similar" in most regards, and (b) projects that address the problem the designer faced, but which did so by mounting a different type of intervention than the designer was considering, i.e., projects that suggested "alternative designs". In addition to information on these two types of projects, it was expected that project designers would be able to use technical information on both the development problem they were facing and on the various interventions suggested by "similar" projects and those with "alternative designs".

In the early stages of developing the pilot semi-automatic responses, PCI prepared a general statement of the proposed process for securing and organizing information for project designers. The process consisted of two main steps: information retrieval and the synthesis/packaging of such information as had been located. These two steps were described in a series of working documents PCI prepared in the fall of 1976. Step A: Retrieval is shown in Figure II-1.

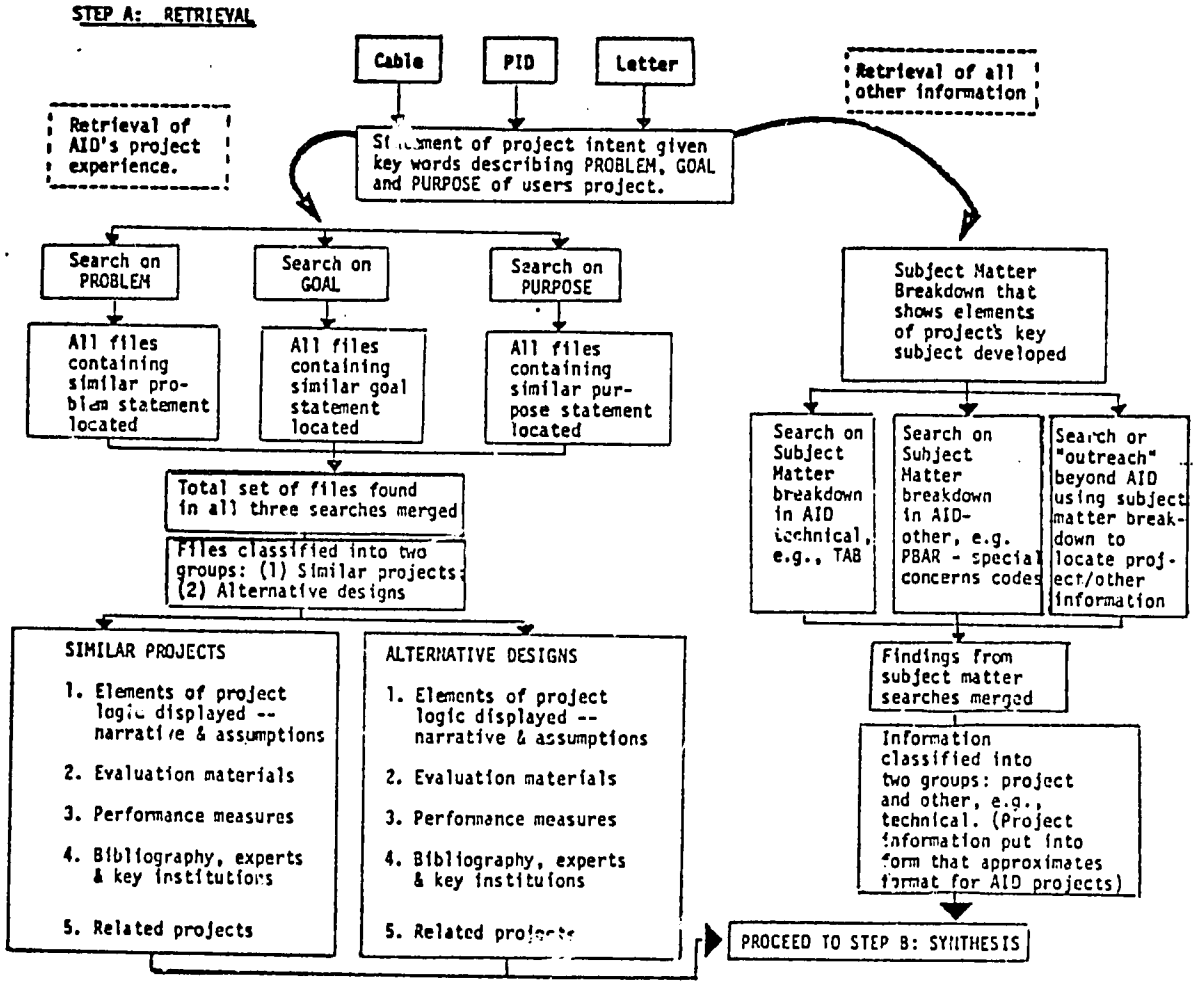

Figure II-1: Steps in the Information Retrieval Process

The first step, information retrieval, consisted of two main tasks. The process began with an analysis of a PID in the office of Development Information. PCI began by reading the three Asian Bureau PIDs to determine how they had been coded (using the PBAR purpose, technical and special concerns numeric coding system) by the Missions. This information tended to place the PID in a general category of projects and to identify the type of intervention the designers were considering. Next, the PIDs were reviewed in terms of key elements such as their statements about the development problem which a project would address and the proposed project Goal and Purpose. Finally, the PIDs were searched for key words that would add to our understanding of the country situation and project design as the Mission saw it. The PID definition of the development problem turned out to be one of the most useful PID elements. However, the PCI team found that it was necessary to "read between the lines" of a PID's problem statement, i.e., these statements tended to be written in a "shorthand" that was well understood by Mission personnel, but which lacked depth and context for reviewers elsewhere. In order to organize an information search, PCI's analysts had to try to fill in some of the missing elements of PID problem description by examining sample PPs (project papers) on the general type of project discussed in the PID, superficially reviewing the country program strategy paper (the DAP), skimming books in the AID Reference Center on the topic, etc. and generally becoming familiar with the type of project for which a semi-automatic response was to be prepared.*

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* The need to be somewhat familiar with the type of project for which one was preparing a response had two consequences for later DI work. First, it suggested that information specialists would do better work if they tended to "batch process" the queries and semi-automatic responses on a particular type of project, i.e., prepare several packages on water, health or integrated rural development before moving on to a new subject. Second, PCI's early experience led to a recommendation that analysts spend a short period reading on a general topic/project area before preparing a group of responses. This recommendation was incorporated in the Analyst's Manual and in the training PCI gave to the first group of direct hire information specialists.

Once PCI completed its review of the PIDs for the pilot tests, the information retrieval process began in earnest. As Figure II-1 shows, the information retrieval process followed two lines: one through the projects held by DIS, and a second that involved "outreach" into the holdings of the AID Reference Center, the Technical Assistance Bureau (now the Development Support Bureau), the State Department library, and beyond, to such data banks as ERIC and AGRICOLA and organizations such as universities and other implementing agencies identified in the process of retrieving "similar projects". In the search carried out by PCI for the pilot semi-automatic responses, the outside organizations queried for information included Ohio State University (AID's 211d contractor in the area of agricultural credit) and CUNA (a cooperative organization with expertise in implementing credit programs for AID).

Once PCI had collected the documents, verbal reports, and other information available on small farmer credit projects, the second stage of the process began. The first task in this stage was to synthesize the information that had been located. In consultation with AID, PCI determined that three summary statements needed to be included in each information package: (a) an explanation of how the search was conducted, i.e., what information sources were examined, (b) a summary description of what information the search had yielded, i.e., the number of "similar" projects, "alternatives designs", books, reports, etc., located, and (c) a synopsis of the patterns found in the information that had been located and examined, i.e., a summary of what was known about the nature of the development problem, what interventions had been reported as successful/unsuccessful in eliminating or otherwise affecting the problem, etc. The first two elements of this synthesis proved relatively easy to prepare (and hence easy to translate

into procedural guidance). The final elements, a synopsis of what a given set of information conveyed, presented a different challenge. The synopses PCI created read like abstracts of "state-of-the-art" papers. While the PCI team found that, with a moderate level of effort, such summaries could be prepared, we also found it difficult to articulate (and hence prepare guidelines covering) the process for developing such synopses.*

Packaging, the final step in the preparation of a semi-automatic response, involved assembling all the materials that were to be sent to a Mission in a logical and easy-to-use order. After a good deal of deliberation it was decided that the best format for an information package would involve presentation of its elements in the following order:

- Summary information, i.e., the search description, the description of all information found and a synopsis of what the information conveyed.
- Project information, beginning with the set of "similar projects" and followed by the set of "alternative designs".
- Technical information, e.g., Xeroxed pages from key books, articles, etc.
- Information concerning individuals who could provide additional information and/or other forms of assistance.

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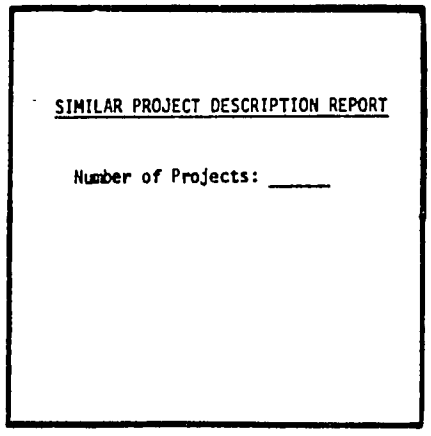
*In later stages of this engagement, when it came time to teach other information specialists how to prepare synopses, PCI found that, in practice, only (a) close supervision of the first synopses prepared by new information specialists, i.e., intensive on-the-job training and (b) trying to pre-select who would do this work (by assisting AID in hiring as information specialist individuals with prior training in analytic work and writing) ensured that the type of synopsis DS/DIU/DI expected from its information specialists would be prepared.

The initial face sheets developed for the information packages separated material on projects from material found outside of the project files. Project materials were to be forwarded to Missions under cover of a "Similar Project Description Report". The first verions of the face sheets for this report are provided in Annex A at the end of this section. Material not found in the project files was to be presented under cover of a "Bibliographic Reference Report". Face sheets for the earliest version of this report are provided in Annex B.

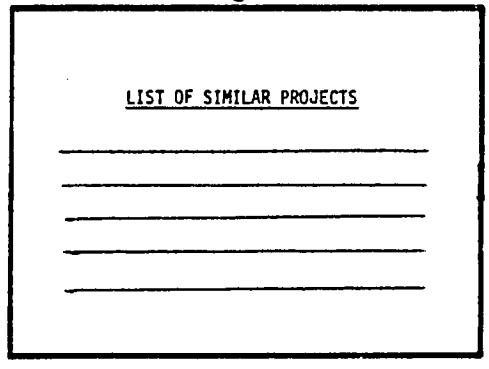
Behind the face sheets for the "Similar Project Description Report" and the "Bibliographic Reference Report", PCI decided to organize the information in a package in order of increasing detail and complexity. Figure II-2 shows how the flow of detail was to be presented in a full "Similar Project Description Report". This arrangement was designed to encourage the reader to go directly to those portions of the report that he/she judged would be most useful. The completed pilot packages allowed the user to skip over whole sections, or detailed portions of sections, without losing track of what materials were included in the report and the reasons for their inclusion.

Once the pilot packages were developed, and the field tests had begun, PCI undertook to prepare a draft description of the processes involved in creating a semi-automatic response. A second by-product of this PCI effort was a review, for AID, of the quality of the materials used in the pilot packages and of the difficulties PCI had faced in using AID's automated data bases to retrieve project information for the pilot semi-automatic responses. That report, which was presented to AID as a memorandum, is provided in Annex D.

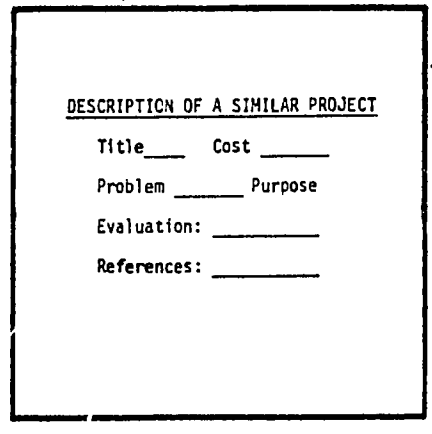
THE SIMILAR PROJECT DESCRIPTION REPORT PROVIDES INFORMATION IN A WAY THAT LETS THE READER DETERMINE HOW MUCH DETAIL HE RECEIVES



Sheet One: summarizes magnitude of search for project data



Sheet Two: identifies subject, location, cost & reason for including each project in the package



Remaining sheets: provide specific information on design and evaluation of each project in the package

Figure II-2: Successive Levels of Complexity in the Similar Project Description Report

2. Field Tests of the Pilot Semi-Automatic Packages

Using the process and formats described in the preceding subsection, PCI completed the preparation of three semi-automatic response packages. The resulting packages consisted of two large volumes for the authors of each PID. Document bulk was a function both of the number of projects included, the technical references that were found to be pertinent, and the number of pages Xeroxed for inclusion concerning each project or technical document. On average, five pages from the files were included for each similar project and alternative design, and three pages were included on each important technical reference. In addition, the Bibliographic Reference Reports contained pages covering both individuals and institutions with expertise on small farmer credit as well as such abstracts of such evaluation literature as was available on the subject. In total, the Similar Project Description Report for the Philippines field test ran about 125 pages. (Annex E provides the face sheets from the Philippines pilot Similar Project Description report. This annex shows both the number of projects reviewed and summarized for the Mission and the type of synthesis PCI prepared to help the Mission understand what patterns this information suggested. As the reader will note, the face sheets which were used in the field test are improved versions of the original drafts shown in Annexes A and B.)

The field visits in each of the three selected USAID's lasted roughly one week. During the week, Mr. Albert Feiner, PCI's team member for the field visits, met several times with the USAID project officer(s) who had prepared the PIDs for which semi-automatic packages had been developed. During the initial meetings, Mr. Feiner described the DIS concept and the initial steps that had been undertaken to establish the Office of Development Inforamtion. He also explained the purpose of the pilot test and the manner in which it would be conducted.

In the pilot tests, PCI and AID were seeking information concerning a number of hypotheses about the Development Information Service, and specifically about the semi-automatic response package. These hypotheses, which are presented in Table II-3, had been outlined at the beginning of the pilot test effort. In carrying out the pilot test, it was Mr. Feiner's objective to determine: (a) what constituted a minimal useful information package in the semi-automatic mode and (b) in what form and order should that information be presented. To secure information on both of these questions, Mr. Feiner followed an iterative approach to the provision of information during the field test. In effect, he attempted to simulate with the USAID personnel the process they might follow in securing/using information if the resources of the Office of Development Information were available in the field.

During the field simulation exercises, Mr. Feiner proceeded by giving USAID personnel only the first page of the face sheets for each report at the beginning of the visit. He then worked with each USAID officer involved in the test, supplying additional information from the full semi-automatic test packages as USAID staff indicated an interest in having more information. In effect, this process allowed the USAIDs to "create" the information packages they would have liked to receive. At the end of this exercise, Mr. Feiner shared with the USAIDs a full copy of the semi-automatic package, as it had been created in Washington. Field staff were then asked to review both the package they had created and the one created in the Office of Development Information.

Following the Mission visits, PCI prepared a summary of the findings from the field tests. Those findings are discussed in the following:

(a) Conditions that Affect USAID Demand for/Use of Information

During the field visits, PCI found that while AID has a uniform process for project development "on paper", that process differs in practice from Mission to Mission:

TABLE II-3: DIS Pilot Test Hypotheses

A. A semi-automatic response has maximum value if received in time to affect the PRP;

B. The optimum semi-automatic response is modular in form;

C. The project Purpose and Goal provide a valid and adequate basis for Logical Framework retrieval;

D. Planned approaches for compiling the semi-automatic response package are valid and appropriate;

E. If D above is not valid, the test will define better approaches;

F. The results of the outreach effort will have value and that value can be differentiated from the value of non-outreach information;

G. AIC codes and PROBLEM, PURPOSE and GOAL key words are adequate basis for full retrieval;

H. DIS operations will not be hampered by limitations of the automated PBAR system as it is frequently designed.

- In Bangladesh and Pakistan the PID development process was reported to be driven by deadlines. In these Missions PIDs were viewed as a means of pinning down future funds. The PIDs tended to be written by the Mission's good writers and/or by Office Directors with the assistance of technical personnel. The PID preparation process was not generally a lengthly one. Little research was normally carried out and the Missions expected that there would be significant differences between PIDs and the later PRPs and PPs.

- In the Philippines the PID development process was a more formal one; research was conducted to prepare a PID and the Mission expected PIDs and later project submissions to correlate well.

Despite substantial differences in the way the test Missions carried out the PID development process, reviewers from the three countries agreed that:

- DIS semi-automatic responses were most desirable prior to the development of PRPs and PPs, i.e., right after PID approval.

- A two stage information package would be preferable to a single information package. The USAID preference was for (a) a first, "quick response", package which identified the materials DIS could provide, and, (b) a second package, which would be triggered by a Mission request based on its review of the "quick responses".

- The Office of Development Information should develop a query form that USAIDs could use whenever they need information.

- The need for information does not end when projects are approved. The USAIDs need to access information of the type that might be available through the Office of Development Information during project implementation as well.

(b) Preferences by Type of Information

The field test exposed Mission personnel to the type of materials the Office of Development Information can provide. The review of project

information and bibliographic (technical) information undertaken by the USAIDs during the pilot test suggested that:

- A mix of project and technical material is desirable.
- Missions will make greater use of information on "similar projects" than about "alternative designs".
- Information on projects that were undertaken in nearby countries or countries with the same cultural heritage, or which addressed the same type of beneficiaries are of more interest to the USAIDs than information about projects undertaken for different beneficiaries or in countries that have different physical and cultural constraints.

In addition to these general conclusions, the field visits provide feedback on the individual elements or sections of the Similar Project Description Report and the Bibliographic Reference Report. Those detailed findings are presented in Tables II-4 and II-5.

When the findings and conclusions from both steps in the pilot test process were reviewed, it became clear that additional data was needed on (a) how much total and elapsed time was required to create information packages of the type used in the pilot tests, and (b) how rapidly "quick response" packages, of the type suggested by the field tests, could be created and forwarded to the Missions. Even before the field tests were completed, PCI and the Office of Development Information began to address the complex issue of time. The first step taken was to conduct a "speed test" using the procedures that had been used to create the pilot packages. That effort is described in the following subsection. Once the field visits were completed, it became apparent that not only was the total time between PID approval and the arrival of a semi-automatic package in the field an issue, but the whole idea of a "full package" needed review. The form this review took is described below in the subsection dealing with format and procedure revision.

In summary, the pilot tests of the semi-automatic package served their purposes: they confirmed the judgments AID and PCI had made concerning the need for project and technical information, and they indicated the choice made concerning the timing of semi-automatic responses. They had also identified a number of ways in which both semi-automatic response concept and actual information packages could be improved.

Task 5: A "Speed Test" on the Development of a Semi-Automatic Response

Based on PCI's report covering the procedures for developing semi-automatic packages, AID decided that a "speed test" of the process was indicated. PCI carried out a "speed test" for AID to determine the real and elapsed time required to prepare a semi-automatic response that included both a Similar Project Description Report and a Bibliographic Reference Report. The test was undertaken between December 23, 1976 and January 7, 1977. At the end of the test period, PCI reported to AID on the exercise. The report began by noting the conditions of the DIS at the time of the test, which included the need for:

- Computer search for projects by purpose code.
- Subsequent manual search of projects for key words.
- Manual search of AID's non-project materials.
- Manual/computer search of project and non-project holdings outside of AID.

PCI further noted that while the exercise "tested" the speed of the system, and its procedures, a number of factors may have distorted the results, including:

1. Some of the required material will be accessible by computer search under "operational" conditions, but this capability did not exist at the time of the test.
2. Projects were identified by purpose code rather than key word. The purpose code search identified 339

TABLE II-4: Field Comments on the Similar Project Description Report

-(Started out by giving Cover page and Approaches Summarized pages)

a) Insufficient to pinpoint further info desired

b) More info under "Reason Project Included"

-Asked for more info on projects

-(Handed out SPDR Annex pages)

a) Date tells them under which "Mandate" project was designed

b) Problem statements need work

c) Strategy not very important

d) Project description desirable but inconsistent

-Constructive Suggestions

a) Include the Purpose instead of Strategy.

b) Identify 4-5 outputs and track these elements through subsequent information provided or attach a second page to the Annex which follows the Handbook 3 format (very brief, 1-2 lines).

c) Note changes that evaluations may indicate over life of project.

-(Log Frame)

a) Abbreviated forms of little value but may want to include on Annex page. Goal level too general can be left out.

b) Log frames by original project designers more acceptable but not necessary in first package.

c) Variations in LogFrames make it difficult to place priority on project they may desire - (not enough to choose project for detailed study).

-(Additional descriptions given next)

a) Contained additional information of interest especially that which was issue-oriented

b) Many felt key points could be included in Annex page.

-Consensus: Cover page, summarized approaches and beefed up Annex sufficient to identify need for specific documentation - Narrative Synopsis (added in later conversation)

-(Evaluation of AID project)

a) Many inconsistencies between description, Logframe, evaluation - purpose seems to change

b) Xerox of PARs of marginal usefulness

c) Want info about OUTPUTS on target (not statistics); to what degree success (flag designer of potential problem area)

d) Want info on problems encountered and how overcome, if overcome

e) Track 5 or 6 important aspects/OUTPUTS

-(Related Projects)

a) Without description it doesn't tell anything

b) Can wait for when specific projects requested (2nd pass)

-(References)

a) Some attempt at validation of resource persons desired

b) Identify expertise

c) How to contact

d) Come in second package

-(Narrative Synopsis)

a) Interested all parties. Liked trend statements.

b) Should be done by technical person. If not, will be read with caution.

TABLE II-5: Field Comments on the Bibliographic Reference Report

-Desire it prior to PRP

-(Cover Page)

a) Office receiving info, not individual

b) Who else receives package should be noted

c) Organizations and services used to come up with info most interesting (#6) (AID, CUNA, IBRD, etc.)

-(Relevant References to individuals, institutions and titles)

a) Doesn't list individuals or institutions (TITLE MISLEADING)

b) Add column stating relevant country or if general treatment of subject

c) If abstracts come along all information shown is sufficient

-(Individual Expertise/Expert Institutions)

a) Abbreviations should be explained

b) Why list what is already in TAB publication (institutions)

c) Are these the only organizations? (They know of some others)

d) Knowing current institutions under contract could be important because of quick accessibility

e) Some felt this was important for back-stop officer who recommends to Mission and hires

f) What about other sources of experts--IQC, etc.

g) Like to see short CV on individuals (concerned with "start-up" costs); country experience, development-related work experience; publications; specialty

h) Institutions - list research work, where field work done; desire names of people there.

-(Evaluation Materials)

a) In general gives more info on why success or failure and results than does PAR

b) Can some methodology be included?

c) Impression generally favorable

-(Other relevant published material)

a) Liked it and liked abstracts included

b) Mixed reaction to receipt on first pass; clutter the mind (PID); no time to go thru all that pre-PID; good for second pass (all agree)

c) Not necessary to provide all the CUNA forms; wait for second request

-(Supplementary Bibliographic Materials)

a) Why include OSU document; all Missions should have it.

-Consensus: First package include Cover Page, List of Titles, Experts and Institutions as very bare minimum.

projects -- of which only 16 were used. It is AID and PCI's hypothesis that the use of key word searches will identify a smaller, but still accurate, set of projects during the first steps of the package development process.

3. Production of the Similar Project Description Report and Bibliographic Reference Report was carried out at the consultants facility (PCI) rather than at AID. Production of packages in AID requiring the same "real" time, may well require more "elapsed" time since less clerical support personnel are available for assignment to the production of information packages.

4. The time an information specialist requires may be understated by the test since consultants who are familiar with developing proposals and other reports under time pressure may be an anomaly in the information specialist category.

The findings of the exercise were summarized in four ways:

- Total real time requirements
- Total elapsed time
- A comparison of real and elapsed time to task
- A network diagram of the process required to prepare a semi-automatic response that shows the tasks that must be undertaken in sequence and those that can be parallel to each other.

1. Total Real Time Requirements

The time used to develop information packages includes the work done by two categories of personnel:

(a)	Information Specialist Level:	53 hours
(b)	Clerical Support Level:	24 hours
		77 hours

2. Total Elapsed Time

(a) Period: December 23 to January 7

(b) Total number of working days in the period: 10

3. Comparison of Real and Elapsed Time by Task

TASK	REAL TIME	ELAPSED TIME
1. Query analysis	6	8
2. Computer search	1 hour	32 hours
3. ARC search	6	8
4. Project files search/ selection of materials	10	48
5. Outreach	10 (approx.)	24 (approx.)
6. Screening/selection of materials for BRR	14 (approx.)	26 (approx.)
7. Analysis/assembly of materials for SPDR	6	5
8. Final production: SPDR and BRR reports	24	8
	77	159

4. Network of Sequential and Parallel Activities

The steps in the process for preparing a semi-automatic response are shown in Figure II-3.

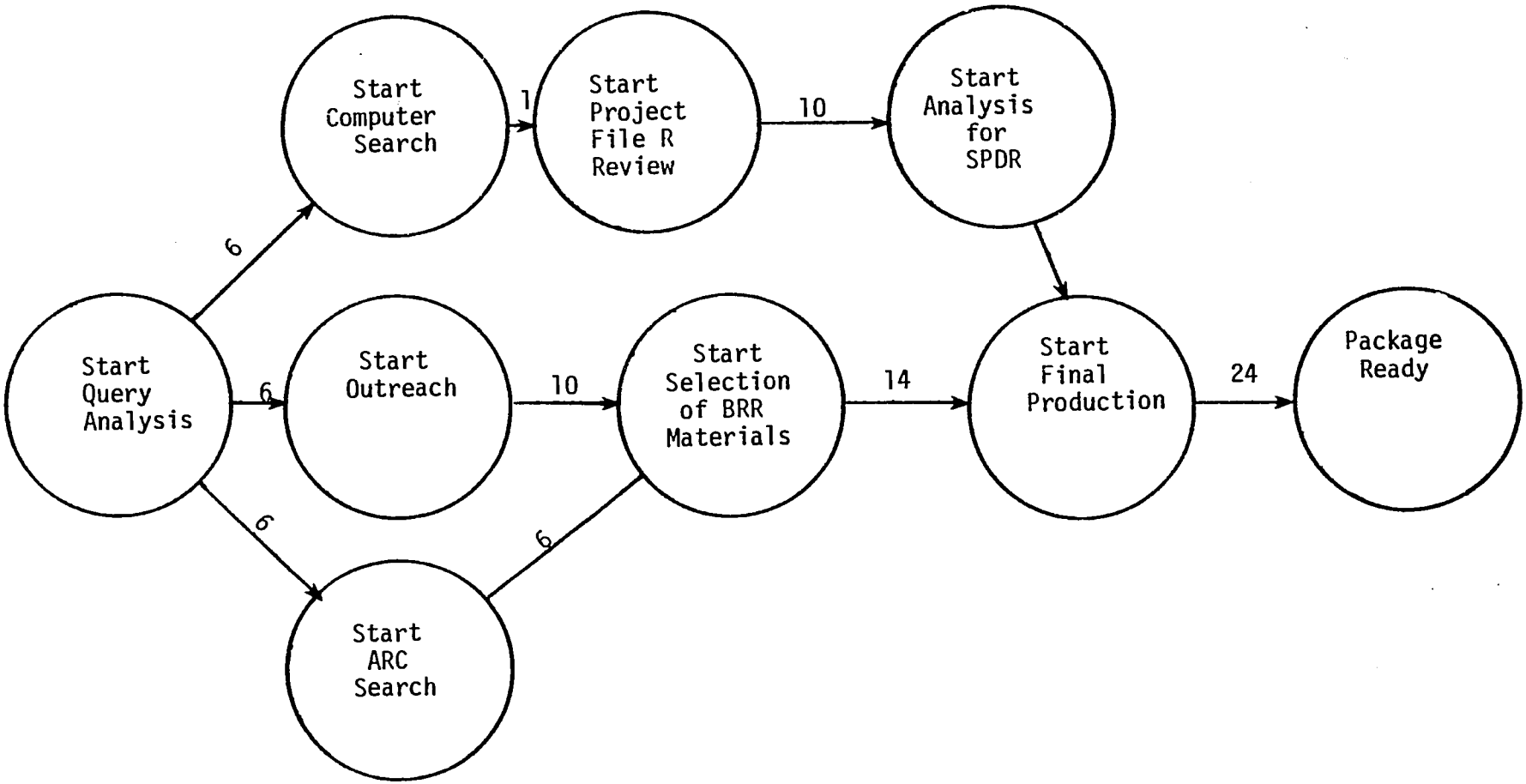


Figure II-3: Rough Network of Package Development Process Shows Critical Path

Minimum time for package completion is 54 hours.

This minimum could only be achieved with "teams" since several activities are shown in parallel.

Task 6: Modify Formats and Procedures for the Semi-Automatic Response

As a combined result of the "speed test" and Mission interest in rapid access to information, the Office of Development Information determined that a substantial modification of the concept of a semi-automatic response was needed. Working together, PCI and the DI staff reviewed the options for preparing a "quick" response to Mission PIDs. Those options ranged from:

- Electing to increase the manpower devoted to preparing the type of comprehensive semi-automatic response DI had initially envisioned and tested overseas.
- Cutting back on the level of effort required by fixing a time limit on information package preparation, i.e., allow analysts to prepare as complete a package as possible in a fixed time period.
- Cutting back on the level of effort required by reducing the semi-automatic package to include only:
  - -- projects identified using key words and the computer printouts that are produced by a key word search.
  - -- key word search printouts, plus a list of the AID Reference Center holdings on the topic.
  - -- key word search printouts, a list of AID Reference Center holdings and a synopsis of the materials which are being forwarded.

After review of the various options, including the development of trial packages for several of the alternative approaches, the Office of Development Information decided on a two part definition of a "quick response". These responses would (a) include key word search printouts of project information, an identification of the key technical holdings of DI in the project area and a letter that summarized what had been located, (b) such packages would be produced within a fixed (and limited) time frame. Revised instructions which describe the modified process to be used in developing "quick response"

packages are presented in Annex F. These instructions were distributed and tested by the DIS information specialists and further modified based on actual practice.

Task 7: Develop Formats and Procedures, as Required, for Direct Responses

In the original plans for the DIS, three types of responses were envisioned: the semi-automatic response, discussed above, automatic responses, which are the subject of our discussion of Task 8, and direct responses. Direct responses, or "tailored" and "simple" responses as they were later to be called, were to be prepared in response to direct inquiries. It was expected that the Office of Development Information would receive such inquiries by letter and cable from the Missions, by memorandum and telephone from AID/W staff, and in various ways from other organizations, e.g., donor agencies, implementing organizations, etc.

In the early months of operations there were no direct inquiries made to the Office of Development Information. However, once the pilot tests were carried out and an article about the Office was printed in Front Lines, AID's in-house newspaper, inquiries began to arrive. The first responses to direct queries were ad hoc replies. The reply was simply tailored to fit the question. After some months of exposure to direct inquiries, it became apparent that they tended to be of two types. The first group were simple queries, that could be answered by forwarding existing materials. The information packages prepared in response to these inquiries tended to consist of a letter and whatever "off the shelf" document best answered the question posed in the query. The second type of direct query was distinguished by the need to search for information and package it in the course of preparing a reply. Responses to these more complex inquiries were called "tailored responses". They could be triggered by any number of methods, e.g., letter, response to a semi-automatic package, telephone call, etc.

An investigation by PCI of the first generation of tailored responses indicated two things: (a) these responses tended to be developed using a process

that in most ways paralleled the development of semi-automatic packages, i.e., a search strategy was prepared and implemented and (b) the information gathered was summarized in a letter that reviewed the search process and presented the product to whomever had queried the Office of Development Information.

PCI's review of actual practice with respect to direct responses suggested that two sets of instructions were needed: one for preparing simple responses and one for developing the more complex tailored responses. PCI further determined that, because of the similarity of tailored responses to semi-automatic responses, the instructions for preparing direct responses should be written in conjunction with or as a variant of the semi-automatic response instructions. The draft instructions presented in Annex F reflect this conclusion.

Task 8: Manage a Test by the Office of Development of Information of the Development of an Automatic Package and Prepare Guidance Material Covering Procedures and Formats

In the report on Establishing a Development Information Service the term "automatic package" had been selected to cover a variety of products that would be prepared without being triggered by a user action. This category of responses was envisioned as including descriptions of basic materials, e.g., lists of new acquisitions, evaluation abstracts, etc., and special information packages of general interest on a specific topic or type of project or, for example, a response that recorded all project activities in a specific Mission in chronological order.

In planning a test of the automatic mode, the Office of Development Information determined that the most useful exercise would be one that examined the feasibility and value of information packages on a topic/project area that was of interest to many users. A review of the requests which had been received from users, together with an examination of the Missions' Annual Budget Submissions, indicated that there were a number of topics/project areas which were somewhat new or novel for AID and for which new PIDs were being

developed in a number of Missions. Two of these areas stood out as being particularly challenging, since little systematic information on them could readily be found within the Office of Development Information's current holdings. These two areas were integrated rural development and appropriate technology. In addition to being new, both topics/areas had an additional characteristic that DS/DIU/DI found interesting: the topics did not appear well defined and understood in the Missions.

Preparation of automatic responses in both of these topical areas was undertaken by PCI and AID's direct hire staff. The process for preparing an automatic response was not fully defined before the work started, rather it was developed through trial-and-error as the preparation of automatic packages proceeded. The existence of multiple definitions of both "integrated rural development" and "appropirate technology" affected the information package development process. PCI and AID information specialists found themselves focusing on definitions and organizing the initial sections of both automatic packages to address that issue. The draft automatic packages they prepared included two main sections: a summary of the definitions/concepts and a set of selected readings, i.e., abstracts and/or Xeroxed excerpts from books, memorandum and other written material on the subject.

Once the first drafts for automatic packages were completed, PCI and the Office of Development Information began identifying approaches for "field testing" these documents. Two approaches were identified: (a) a review of the "integrated rural development" package would be undertaken by AID's technical officer for this area, Dr. Jerry Weaver, in the Office of Rural Development, Development Support Bureau, (no comparable individual could, at the time of the test, be found in AID to review the "appropriate technology" package) and (b) Mr. Frank Kerber, of PCI, who was scheduled to visit West Africa in

connection with a different contract, would visit three Missions to "field test" the two draft automatic responses with USAID personnel. These "field tests" would take place in Senegal, Mali and the Ivory Coast.

The review and critique carried out by Dr. Weaver for the "integrated rural development" package was an informal one. Dr. Weaver read the document and presented his comments orally in a brief meeting. His comments were recorded and subsequently used to revise the draft. Dr. Weaver found the idea of an automatic package useful. It's value for him was not based on the degree of authority with which the summary comments had been prepared, but rather in the bibliography and selected readings identified by the Office of Development Information. Several of the entries that had been located and included were unfamiliar to Dr. Weaver, also included were documents he knew existed but had previously been unable to locate.

The field test in West Africa was more formal in nature. Mr. Kerber met with three USAID officers, sought their review of the two drafts, and interviewed them to secure data on a set of questions about automatic response packages. The list of interview questions Mr. Kerber used are presented in Table II-6. A field test report submitted to AID following the West Africa visits summarized the views of six USAID officers who had reviewed the drafts. This report indicated that the majority found automatic packages to be a potentially useful tool for Mission personnel and perhaps even more useful for contract design teams. The report further suggested that automatic packages would benefit from the inclusion of descriptive material about current AID projects in the topical area, more research on the topic, and synopses which integrated the contents of the package for the reader. A more formal package structure, with defined sections, was also recommended. The full report on the West Africa field test is provided in Annex G.

Based on the tests of the automatic response mode, PCI and the Office of Development Information prepared a revised table of contents for automatic

TABLE II-6: Automatic Package Field Test Questions

1. Is a "reading file" the right idea?
2. Will the Mission want to see PROJECT SUMMARIES in these volumes?
3. Will the Mission want to see LISTS OF INDIVIDUALS AND INSTITUTIONS in these volumes, recognizing that the Office of Development of Information will not be getting into the business of preparing comprehensive lists of this sort?
4. Is the synopsis a necessary/valuable part of this type of volume?
5. Was too much included in the APPROPRIATE TECHNOLOGY package, e.g., all the diagrams, and/or was there too little in the INTEGRATED RURAL DEVELOPMENT PACKAGE?
6. What should be sent on each publication: abstracts only? mix of abstracts and excerpts? all excerpts?
7. How is the format/quality: is Xeroxed copy ok or do we need to be fancier?
8. How important is the fact that we have these packages reviewed by "experts"?
9. Did we pick appropriate topics? What do the Missions think should stimulate the development of a TOPICAL SUMMARY?

packages that could be applied in preparing any topical automatic response. The standard table of contents is presented in Table II-7. Using this revised table of contents, and the detailed comments from the AID/W and West Africa field tests, DS/DIU/DI's information specialists prepared revised drafts

TABLE II-7: Standard Format For Automatic Packages

TABLE OF CONTENTS

PREFACE

(Will indicate parameters of the data search, date limitations -- active as of 1974 -- of AID projects, purposes and organization of the package, names of experts who have reviewed the package, etc.)

SECTION 1. BACKGROUND AND ANALYSIS

(The organization and subheadings in this section will vary somewhat. At a minimum, the section will begin with a discussion of the history and development of the topic, and will end with some concluding statements regarding "lessons learned" of major issues of application of the concept. It will include one or more definitions of the concept; a discussion of AID and non-AID experience; evaluations of this experience; alternative approaches; project design notes. The discussion will reflect the data in AID and non-AID projects, and some but not all the materials included in the bibliography, principally evaluation material.)

SECTION 2. PROJECT EXPERIENCE

AID Projects (Computer printouts in an expanded Quick response format) Non-AID Projects (Abstracted by author)

SECTION 3. BIBLIOGRAPHY

(The bibliographic items will be topically arranged insofar as possible. One suggested arrangement is "History and Definition of the Concept," "Experience and Evaluation;" "Specific Techniques and Applications." Each topical subdivision will be preceded by a very short statement describing such things as which book or author is regarded as the authoritative work, or which is the most comprehensive, or which items reflect which major issues or arguments. The items will be arranged by year, then author, in order to facilitate updating. Materials available at ARC will show catalogue number.)

SECTION 4. INSTITUTIONS

(No individuals. Will include universities, voluntary organizations, and private companies in the U.S. and abroad.)

SECTION 5. ONGOING AID RESEARCH AND PROJECTED ACTIVITIES

(We will not include this in the initial package, but may do so later; it will include technical research, approved PIDs, and new projects not reflected in Section 2.)

of the first two automatic response packages. The revised drafts were produced by the Office of Development Information for circulation to the Missions and in AID/W in the fall of 1978. Subsequent packages on new topics were also prepared using the revised table of contents and the experience gained in the preliminary work on automatic responses.

Task 9: Design Detailed Proposed Operating Procedures

The unit within the Office of Development Information on which PCI's two year effort focused was the information analysis cluster. The majority of PCI's tasks under the contract dealt with the definition of procedures for preparing information packages and the training of information specialists. The task of preparing proposed operating procedures was limited to the area PCI's general assignment, i.e., to the procedures that would govern the work of the information specialists.

The format for presenting proposed operating procedures for the information analysis cluster was a reference manual for the information specialists: a desk-top guide, in a three ring binder. This format, it was felt, would be easy to use and, in addition, would allow for periodic updates of specific instructions. It was further determined that the reference manual should contain both managerial procedures, e.g., how assignments for preparing information packages were to be distributed/monitored and instructions on information package preparation.

PCI, using the early drafts of instructions for preparing information packages and the PCI project team's experience in managing the information analysis cluster, drafted an Analyst Reference Manual for review by the Office of Development Information. Following this review, PCI prepared second and third drafts of the manual. Once all of the substantive material was ready, PCI staff member, Mr. Terry Schmidt, undertook preparation of a final draft of the material, putting the agreed upon substance into simple terms appropriate for a user manual. The final version of the Analyst Reference Manual was reproduced by PCI, and placed in three ring binders bearing a logo PCI had created for the Office of Development Information. The Analyst Reference Manual is reproduced in full as Volume III of this final report.

Task 10: Train Two Information Specialists in the Development of Semi-Automatic Packages

With the exception of formal training in the Logical Framework concepts, the orientation and direction given to the DIS information specialists took the form of on-the-job training. Over the course of the two year engagement, PCI trained nearly a dozen individuals to prepare information packages in response to PIDs, direct inquiries and to develop automatic response packages. Some of the individuals who were given this on-the-job training for work in the Office of Development Information were PCI staff members, two of whom later joined the Office of Development Information on a direct hire basis. In addition to training its own staff to carry out this work, PCI trained three direct hire staff members in the preparation of semi-automatic, automatic and direct responses. Two of these individuals remained with the Office of Development Information for a significant period of time; the third, a recent graduate of AID's Development Studies Program, stayed with the Office of Development Information for a shorter period of time.

As suggested by the above, and by the earlier discussion of training for the DIS abstracting cluster, the amount of formal and on-the-job training PCI provided during the course of this engagement was substantial. While the formal training sessions tended to be short, they were also intensive. On-the-job-training in information package development, by contrast, was neither intensive, nor was it completed within a fixed time frame. The PCI team member who served as manager of the information analysis cluster provided most of the on-the-job-training for both the PCI and direct hire information specialists. This supervisor guided the work of each new analyst for a period of several months. The guidance was at first intensive; later it was followed up by careful reviews and critiques of the analysts' work products.

As the information specialists became fairly proficient, PCI altered the process by which reviews and critiques were provided. During the second year of operations a weekly staff meeting for the information specialists was initiated. In that meeting, the information specialists were encouraged to offer

peers guidance and advice on information package development. Advice was sought from the group as each active assignment was discussed. The change from a supervisor-student approach to the peer approach to providing continuing on-the-job-training/guidance was viewed by PCI as a way of institutionalizing the self-improving attitudes fostered in the initial training given to new analysts.

Throughout PCI's two year engagement with the Office of Development Information, the focus of training was on response effectiveness and utility. Analysts were encouraged to think of themselves as "staff" for the Office's clients, rather than as line officers in a unit within a heirarchial, or bureaucratic, structure. The image of an attorney-client relationship is a good analog to the type of relationship PCI's training program encouraged. The model is one in which information specialists could readily understand that the quality of each response was far more important that the total volume of responses. Yet, because the needs of users were often urgent, it was not difficult to foster the idea that "timeliness" was an element of the Office's concept of quality; hence, efficiency was also encouraged.

Task 11: Provide Guidance to the Information Analysis Cluster, Including the Individual Designated to Take Over Management Responsibility for This Unit

During the full two years of the engagement, PCI served as day-to-day staff the Office of Development Information. In addition to carrying out each of the tasks discussed elsewhere in this section, PCI team members took responsibility for the preparation of information packages and one member of the PCI team served for roughly a year as the manager of the information analysis cluster. During that period, PCI developed a series of management approaches

including training sessions, procedures, staff meetings/peer reviews, logs of the information requests, etc. These procedures are by and large documented in the Analyst Reference Manual (see Volume III).

During the final six months of the engagement, PCI undertook several activities that were designed to "work the PCI team out of a job", (to borrow a phrase from Peace Corps rhetoric). As part of this final operational task, PCI needed to transfer to a direct hire employee the methods and approaches that had proven effective for managing the work of the information specialists. The process PCI used involved a three stage transfer of responsibility. In the first stage, PCI's manager for the information analysis cluster began working with AID's newly appointed full-time manager, Mrs. Neena Vreeland. In this first stage, PCI's manager first sought to demonstrate the procedures which were being used and discuss with Mrs. Vreeland the reasons for their existence. In the second stage of the turnover, these two individuals co-managed the unit, i.e., they began to alternate the responsibility for managing the staff meeting, maintaining the logs on responses, reviewing the work of the analysts, etc. In the third stage, Mrs. Vreeland assumed full responsibility for managing the information analyst cluster, and PCI's manager assumed the role of a regular analyst. During this final period, PCI's manager remained available for consultation on management issues.

Task 12: Propose a Plan for Further Development of the Office of Development Information

In many ways the overall PCI effort in the Office of Development Information took the form of a "turn-key" operation. PCI designed procedures for operation of the information analysis cluster, implemented those procedures, trained direct hire personnel as they came on board, and finally, as the need for PCI's active involvement decreased, PCI reduced in a gradual manner its active participation in the management of the unit and conduct of its business. In the final few months of the engagement, only two PCI team members remained;

they served as information specialists carrying on the normal flow of work under the direction of DI's direct hire manager.

The "turn-key" operation in which PCI participated over the two year term of the contract was somewhat different from what had been anticipated at the time the initial contract was signed. When the engagement began, it was expected that PCI would be actively involved with DI operations for only a few months. The contract task of preparing a plan for future development of the Office of Development Information had it been undertaken at the end of six months, would probably have outlined what the early phases of full operations should encompass. However, given amendments to the contract which both added tasks and extended the period of active PCI involvement with the office, a "forward-looking plan" took on a somewhat different meaning. As PCI approached the end of the two year contract period, and the task of preparing a plan for future development of the office, it became clear that:

- The plan for "future development" needed to be an AID plan, not a PCI plan.
- There was a natural "conflict" between PCI's effort to transfer skills and responsibilities to AID direct hire personnel and a task calling for PCI to develop a plan for the continued development of an operational unit in AID.

With these two constraints in mind, PCI decided to approach the task in a relatively unobtrusive way, i.e., it would not formulate a plan for the office, but rather PCI staff who had not been wroking in DS/DIU/DI on a daily basis would work with the Office staff, as facilitators, in a process that would help the Office of Development Information to formulate its own plan. The approach PCI used to carry out this effort utilized the Logical Framework. Two PCI staff members who were familiar with DS/DIU/DI's work, but who had not been involved in the Office's daily routine, met on several occasions with direct hire staff to help them formulate a Logical Framework for the further development of the Office, particularly the information

analysis cluster. This PCI effort led to the development of several drafts of a Logical Framework. Successive drafts were provided to AID personnel, but no attempt was made by PCI to translate the drafts into a final, formal statement of a plan. The limited objectives of this exercise were to:

- Assist DS/DIU/DI's direct hire staff in formulating a set of objectives, and
- Demonstrate that the Logical Framework approach AID used for its projects -- a familiar approach to every information specialist -- could be a useful tool for objective setting within the Office of Development Information.

The results of this effort can be seen in the final draft of the Logical Framework produced by this process. This last draft is shown in Table II-8. While the Logical Framework presented in this table did not constitute a formal action plan, it contained many of the elements the Office of Development Information required as a basis for preparing a formal statement of its intentions concerning future development.

B. ASSESSMENT OF THE LINKAGE FROM INPUTS TO OUTPUTS

A summary assessment of the Input-to-Output link in the effort to establish a Development Information Service is that the design for the program was generally sound and successfully carried out. The service unit PCI had assisted AID in creating became operational in February, 1978. This section of the report goes beyond a summary assessment to explore performance components that were sources of strength and weakness in the early stages of DS/DIU/DI's development. In order to improve future development efforts by the Office of Development Information, the linkage comments provided below focus on four general task categories.

TABLE II-8: Draft Logical Framework for DS/DIU/DI's Future Development

Discussion Draft
June 29, 1978

DI LOGFRAME

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
GOAL: AID projects demonstrate that "lessons learned" have been incorporated in project designs.	1. Proven approaches re-used with high achievement rate (80-90% EOPS) 2. Survey of all projects started since 1978 reveal no projects doomed to failure through lack of knowledge of previous failed approaches. 3. AID projects include high incidence of innovations, proven approaches, etc., demonstrated by non-AID sources--i.e., World Bank, German or Canadian AID, etc. Multi-disciplinary multi-nationals, 3rd World Governments, etc.	Review of projects from 1978 onwards --PPs --Evaluations and comparing these with information provided for individual projects, key topic areas or special issues papers	
PURPOSE: DS/DIU/DI is a viable institution providing effective and efficient information on a timely basis for new project design efforts throughout the Agency.	1.a. Missions find an average of 50% of Information Packages useful background; 40% actually goes into project documents; less than 10% irrelevant. b. All Missions state by 1985 and onwards that DI is preferred source of data/analyses when preparing new projects. i. in speed, efficiency, and effectiveness ii. in monetary savings to Mission c. 85% of AID employees can correctly describe DI and its "mission" d. By 1985 30% of DI's clients are non-AID 2.a. DI staff express pride in their products b. DI staff service increasing demand without feeling of sacrificing product quality c. Staff turnover does not exceed ____% under normal conditions. 3.a. DI is funded at levels sufficient to complete its work load, and meet increasing demand from information users (Note: 177 requests in 1977 176 requests in first half of 1978)	1.a. Tabulations of individual "feedback sheets" b. Sample survey of Missions c. Sample survey of AID/W employees d. Observation of DI records of requests and their originators by year 2.a. Image survey of DI staff and close collaborators/ supervisors/colleagues b. Review of request records, completion dates and survey of staff c. Review of personnel records 3.a. Annual funding compared to completed work and indicators 2a, 2b, and 2c above.	1. USAIDs use information provided appropriately; to make adequate decisions 2. USAID and host country willing to tackle innovative or unconventional approaches. 3. Projects are approved. 4. Diplomatic relations not broken off. 5. In-country political considerations do not cancel value of information.

Continued on next page.

TABLE II-8: Draft Logical Framework for DS/DIU/DI's Future Development

Discussion Draft
June 29, 1978

DI LOGFRAME

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
OUTPUTS: 1. Quality information packages prepared on request	1.a. High quality quick response packages issued within 10 days of request--or receipt of PID by 5/79 onwards 1.b. Responsive information packages tailored to specific request issued within 10 days of request by 5/79 onwards	1.a.i review of package against checklist criteria ii subjective assessment by supervisor iii response sheet from Mission iv review received and sent records 1.b. as for (i)-(iii) above	1. Missions understand how to effectively use information provided by DI
2. Efficient, comprehensive "memory" of AID's experience fully established	2.a. By 5/79 all AID projects from 1974 onward in "Memory", including all evaluations 2.b. From 5/79 onwards all new projects abstracted within 2 weeks of approval 2.c. By 5/79 key projects documents, including evaluation reports sent automatically to DI for inclusion in system 2.d. Technical literature incorporated into computer system by 5/79 2.e. Context data incorporated into responses by 5/80 2.f. Search time reduced 50% by incorporation of current Manual Systems into the computer; (i.e., technical literature, evaluation reports, monitoring records of previous searches, etc.) 2.g. Cost per request reduced from $ ____ (average) in 1978 to $ ____ in 1980	2.a. Spot checks for individual projects always turn up positive 2.b. DI abstracting log 2.c. Spot checks of known evaluations always positive 2.d. DI computer file review 2.e. Review of DI's response packages 2.f. Current search time (averaged) per page of document issued compared annually 2.g. Total Budget / No. of requests OR Total Budget / Total pages / 10 Compared from '78 to '80	2. Mission requests submitted early enough to take full advantage of information packages
3. Analysts' skills maintained at high level	3.a. Standards set for Indicators 1a, 1b and 2b and 2f remain at high levels established by 5/79 3.b. In-house reviews of information packages (quick response and others) reject less than 5%/year on basis of poor quality work	3.a. DI records and achievements of specified indicators	3. Diplomatic relations not broken off
4. Special Information Packages prepared consistent with AID directions and mandates	4.a. Three special topics/year fully researched using AID and non-AID sources, documented and mailed to all Missions (i.e., energy, co-ops, etc.) 4.b. Complete Mission histories (historical country-profile of USAID; work done, projects sponsored, etc.) forwarded to individual Missions by 12/78 4.c. Both of the above updated on an annual basis as a minimum from 12/79 onwards	4.a. DI records sample survey of Missions 4.b. " " " 4.c. Review of at least ____% of total packages produced more than 1 year previously	4. Information appropriately shared with local government--"selling job"
5. Across country transfer possibilities assessed and included as special packages (4 above)	5.a. Common problems, issues, etc., for groups of projects identified, researched and special packages prepared alerting Missions to possible solutions, or clarification of issues 5.b. In-depth analyses of successful projects in one country for their transferability to other countries at least 2 in-depth analyses per year, 12/79 onwards in collaboration with PPC	5.a. DI records 5.b. Sample survey of Missions	5. Agency-wide procedures for routing project documentation to DS/DIU/DI established
6. Comprehensive access to other donors' (institutions, individuals for expertise outside AID) project files, records and experts, as well as other information systems within PID 7. Feedback system operational	6.a. Detailed roster maintained of additional expertise classified by topic, institution, with up-to-date contact person, etc., for all sources outside AID 6.b. Automated or manual access to one new source of information per year established 7.a. Response sheets on "usefulness" of information packages routinely analyzed and tablulated 7.b. DI analysts' actions demonstrate attention to accumulated feedback 1. weeding out irrelevant materials 2. increase in "useful" scale on future packages to same Missions 3. change in type and scope of product when feedback levels suggest this is appropriate	6.a. Review of Roster 6.b. Spot-checked selected phone numbers for up-to-date status 7.a. DI records and review of response sheet tabulations 7.b. Interview DI analysts sample of survey of Missions re: DI responsiveness improvements	

Continued on next page.

TABLE II-8: Draft Logical Framework for DS/DIU/DI's Future Development

Discussion Draft
June 29, 1978

DI LOGFRAME

NARRATIVE SUMMARY	OVIs	MOVs	IMPORTANT ASSUMPTIONS
INPUTS: 1.a. Request recorded and assigned immediately on receipt, and LogFrame developed b. Comprehensive search conducted by Analyst of all sources c. All search products assembled, analyzed and synthesized as appropriate d. Production, typing and xeroxing completed e. Cover letter highlighting special concerns, requests for feedback f. Package pouched			1. All AID Missions and Bureaus will cooperate with PPC request--to automatically forward key documents (especially evaluations) to DI
2.a. Continue project identification and abstracting 2.b. Continue search for evaluation documents and systematize procedures for automatic passing on to DI c. Identify which manual systems could be most effective if computerized--and develop plans for such action (i.e., for technical literature?) d. Continue microfiche activities until all PPs and evaluations since '74 are completed (5/79) e. Improve computerized "presentation" formats of information to be useful to readers (users) f. Develop internal record system for determining efficiency of searches in terms of cost and time g. Maintain comprehensive, easily accessible file of all previously completed information packages			2. PPC letter requesting this cooperation will go out as scheduled
3.a. Ensure in-house trainers receive sufficient training practice and refresher courses as necessary b. Introduce systematic checklists and other aids as appropriate to ensure consistent and high level skills maintained c. Develop basic standards for job entry candidates d. Develop in-house training program, automatic requirement for all new analysts			3. Technical literature can be keyworded in manner compatible to project file for computer access

TABLE II-8: Draft Logical Framework for DS/DIU/DI's Future Development

Discussion Draft
June 29, 1978

DI LOGFRAME

NARRATIVE SUMMARY	OVIs	MOVs	IMPORTANT ASSUMPTIONS
4.a. Keep in touch with Bureaus and new legislation that affects AID b. Develop contacts and access to data across broad and specialty fields--other donors, World Bank, Universities, and individuals involved in special research. Other government agencies and research oriented corporations, including multi-nationals (See Output 6, also) 5.a. Sort PIDs into similar categories b. Review for commonalities-problems, key issues, etc c. Develop possible topics for in-depth analyses and cross-country implications d. Conduct research e. Circulate to interested Bureaus, Institutions, Missions in draft format f. Collate responses and revise paper g. Produce and distribute h. Same process (Steps a-g) for particularly successful single project to assess its transferability to other countries known to be interested in problems addressed by such a project 6.a. Develop system for recording, updating, and ensuring ready access for contacts developed for Output 4 b. Develop response sheet for Mission to comment on "usefulness" of such contacts to continually weed out irrelevant or inexpert "experts" 7.a. Design a "feedback sheet" for Missions to respond to questions on "usefulness of information packages" b. Test feedback sheet c. Revise as necessary d. Develop procedures for routine use, analysis and accumulation of results from feedback sheets for: 1. Individual Analyst action 2. Action refining product 3. Action changing product 4. Progress reporting on DI performance at Purpose level			4. PPC places high priority on transfer of experience across country

1. Creating a Project Data Base

PCI's participation in this area was marginal. The PCI task of "guiding and monitoring the abstracting of projects" was incorporated in the contract, by amendment, only after PCI and AID reviews of project abstracts indicated that early abstracts did not adequately utilize the opportunity to define AID projects in Logical Framework terms or through "key word" locators. The task assigned to PCI involved an intervention in the activities of a second contractor, a procedure that might have proven quite difficult to implement.

The intervention PCI was to undertake included training for the staff of the second contractor and subsequent reviews of the work products of these individuals. While the task proceeded fairly smoothly, it highlighted a basic difference between the work of an information analysis cluster and an abstracting cluster. These differences may require attention by DS/DIU/DI in the future. The difference between the two clusters is not an unfamiliar one in information systems work: those who prepare the inputs for an information system perceive the system and its elements in a way that differs from the perception of those who work with system outputs. Simply put, abstracting teams can meet their responsibilities by entering data according to a set of guidelines. The real value of the manner in which these guidelines are followed is not a central focus of or constraint in their work. In contrast, information specialists are highly dependent on the quality and coherence of the abstracting teams output -- poorly written and coded abstracts can impede the efforts of the information specialists to fulfill their responsibilities.

With hindsight, it is PCI's judgment that the natural differences between the input and output units within the Office of Development Information could have been reduced if a single contractor had been responsible for both sides of the system. Even with the two contractor situation, the problems could have been minimized by having PCI provide training for the abstractors before they began work, rather than at a point in time when a sizeable number of

inadequate abstracts had already been produced. In practice, PCI had to both train the abstractors in new methods and help them "unlearn" the approaches which had produced inadequate work products. The lessons from this experience for future DIS/DIU/DI operations are suggested below:

- When new staff join DS/DIU/DI, either as information specialists or as abstractors, formal training in the concepts and procedures used by the Office should be provided early, before counter-productive habits are acquired.

- The assignment of information specialists to the abstracting unit and vice versa, on a short term basis, is a training approach the Office could employ with the expectation that people would better understand the nature and constraints of both their own long-term jobs, and the functions of the other DS/DIU/DI unit that works with the same system.

- Periodic DS/DIU/DI management reviews should attempt to identify and correct differences in perception of the system within the two subunits. It is well within the range of probability that these units, in isolation, will reinvent the problems found during the PCI contract period. Management attention to this possibility is a preventive step in the right direction.

2. Information Package Formats and Procedures

Eight of the twelve tasks assigned to PCI fell within this general area, (Tasks 2-9 according to the list presented on pages II-1 and II-2). As Part A of this section has suggested, the approach followed in PCI's contract with DS/DIU/DI involved a three step process for arriving at a set of procedures that could be used by the Office in developing information packages. The three steps in this process were:

- Define the theoretical contents of a package and prepare a sample package using those definitions.

- Test the sample package with its potential clients and secure feedback.

- Prepare final instructions for creating information packages, as modified by the foregoing process.

For two of the DS/DIU/DI information response modes, i.e., the semi-automatic and the automatic packages, a great deal of refinement was required between Step 1 and Step 3 of the process PCI and the Office of Development Information undertook. A post-facto review of the approach that was used clearly suggests that a good deal of time and effort could have been saved by involving users in the package design process at an earlier stage. As DS/DIU/DI looks toward the future and considers the development of new types of information products, it would be well advised to act upon this lesson. There are several ways DS/DIU/DI could involve users at an earlier stage in the process of formulating and testing new product ideas, including:

- Creating "product development" teams that include users, i.e., encouraging field and AID/W staff who are in Washington (permanently or on temporary assignment as students in the Development Studies Program, etc.) to participate as active members of DS/DIU/DI "product development" teams.
- Taking advantage of the travel plans of DS/DIU/DI personnel to schedule working sessions in the Missions on "new product" ideas, including definition of the contents of new types of information packages.
- Careful review of the types of tailored packages produced by DS/DIU/DI in response to user requests. An examination of past responses may reveal patterns that suggest clearly what types of "new products" would be well received by the users of the DS/DIU/DI services.

3. Staff Training and Supervision

While only two PCI tasks, (numbers 10 and 11 on page II-2) focused on staff training and supervision, this is one of the areas where the results appear to PCI to have strengthened the development of DS/DIU/DI in a number of important ways. DS/DIU/DI's successes, in PIC's judgment, are better explained in terms of its staff than by its information base or automated systems. Further, it is the motivation and basic attitudes of that staff, rather than their past experience or education/skills, that are fundamental to DS/DIU/DI's success. Specifically, it is PCI's judgment that the effort

to foster a perception on the part of the information specialists that (a) their clients are their users, their remote supervisors and their ultimate judges and (b) the definition of quality work by an information specialist subsumes the notion of a "timely" response, has played a critical role in making DS/DIU/DI an effective organization.

The recommendation for the future of DS/DIU/DI based on this conclusion is clear. It is in DS/DIU/DI's best interest to continue to foster these perceptions in the information specialist cluster. It follows logically that it is in DS/DIU/DI's interest to take active steps to continue to insulate the information specialists from the AID/W hierarchy. Given the change in "mission" that was implicit in AID's decision to create the Development Support Bureau, the task should not prove difficult. It is, however, worth noting, that the information specialist unit within DS/DIU/DI is perhaps one of the Development Support Bureau's best examples of how the Bureau's "mission" can be carried out on a daily basis in Washington.

4. Forward Planning

A plan for the future must be dynamic in a unit such as the Office of Development Information. Periodic reviews that involve all elements of the Office and take into account performance against past plans, user feedback, and changes in the Agency's programs and priorities are essential to the viability of the organization. At three points since it began working with AID toward the establishment of a viable Office of Development Information, PCI assisted in the process of creating forward plans: in the design stage (under Contract AID/otr-C-1377, Work Order #2), in an interim period between that contract and the contract addressed by this final report when a Logical Framework was created for the pre-operations phase of DS/DIU/DI's development and, finally, at the end of the period of the present contract when PCI assisted DS/DIU/DI in creating a Logical Framework for future activities

in response to the requirement in its contract (Task 12 on page II-2). At each of these points, PCI used AID's Logical Framework approach for identifying objectives and specifying the tasks (Inputs) required to achieve program Outputs, Purpose and Goal.

In the first two of these forward planning exercises, the data required to facilitate planning was available. The lack of an AID "memory" had been well documented and information on the nature of AID's project files, technical libraries, systems capacity, etc. had been secured. During the third forward planning exercise there was a marked lack of basic data. Little systematic data was available concerning user reactions and less was known about the actual uses made of information provided by DS/DIU/DI to its clients. In addition, the final forward planning exercise PCI undertook with DS/DIU/DI suffered from the absence of a critical review of the degree to which the full set of objectives outlined in the report on Establishing a Development Information Service were being addressed and achieved. In part, the constraints under which the Logical Framework developed at the end of the contract period was prepared are a function of the timing of that exercise: it took place at a point where PCI was in the process of transferring responsibilities to its direct hire staff, but it preceeded the timing of DS/DIU/DI's own management assessment of what had been accomplished by the Office.

Despite the difficulties imposed by the timing of the exercise and the absence of useful evaluative data, the planning exercise succeeded in outlining many of the activities DS/DIU/DI direct hire staff would need to undertake once the PCI team terminated its work. As a reference piece, the Logical Framework that was developed may well have met an immediate need. However, the deficiencies in the process and its product do suggest lessons for the Office, including:

- Management attention is required to coordinate the timing and integration of evaluation and forward planning exercises.

- Such exercises are useful for a dynamic office such as the Office of Development Information. The context within which DS/DIU/DI operates is a changing one; evaluation and replanning activities should be built into the Office's schedule at intervals which will facilitate its efforts to serve its users and fulfill its mission.

- The Logical Framework approach is familiar to the Office staff; it is an appropriate framework for DS/DIU/DI planning and evaluation exercises.

- A structured data collection process is needed if adequate information is to be available on (a) actual versus planned performance, (b) user needs and responses to DS/DIU/DI products and (c) important changes in the Agency's policies and in its project portfolio.

PC/DI 001

Report Number: _____

SIMILAR PROJECT DESCRIPTION REPORT (SPDR)

A. QUERY DESCRIPTION

1. Type of Search/Response Conducted: Response to Query ☐ Semi-Automatic ☐

2. Specific Document and/or Project for which Search was Conducted:

_____

3. Output Recipients/Copies of Package forwarded by PPC/DI to:

a. _____

b. _____

c. _____

B. SEARCH DESCRIPTION

1. PROJECT MEMORY SEARCH

a. AID

Projects Identified (Number of Projects): _____ Projects (Number Reviewed): _____

Number of Projects Found to Be Similar _____ Number of Projects Defining Alternatives _____

b. NON-AID:

Projects Identified (Number of Projects): _____ Projects Reviewed: _____

Number of Projects Found to be Similar: _____ Number of Projects Defining Alternatives: _____

Prepared in PPC/DI by : _____ Date: _____

Reviewed for PPC/DI by: _____ Date: _____

PPC/DI 001.2

C. SIMILAR PROJECTS SUMMARIZED IN THE REPORT:

1. AID PROJECTS

PROJECT NUMBER	TITLE	COUNTRY/OFFICE	PROJECT DATES

Continuation of listing appended: Yes ☐ No ☐

2. NON-AID PROJECTS

ORGANIZATION	PROJECT NUMBER/TITLE	COUNTRY	PROJECT DATES

Continuation of listing appended: Yes ☐ No ☐

PPC/DI 001.3

D. ALTERNATIVE PROJECT APPROACHES SUMMARIZED IN THE REPORT

1. AID PROJECTS

PROJECT NUMBER	TITLE	COUNTRY/OFFICE	PROJECT DATES

Continuation of listing appended: Yes ☐ No ☐

2. NON-AID PROJECTS

ORGANIZATION	PROJECT NUMBER/TITLE	COUNTRY	PROJECT DATES

Continuation of listing appended: Yes ☐ No ☐

PPC/DI 001.4

D. SYNOPSIS OF ANALYSIS OF MATERIALS REVIEWED

1. Coverage:

Analysis covered similar and alternative projects listed in SPDR Number: _____: Yes No

Analysis covered materials identified in BRR No. _____ which was developed as a companion report:
Yes No

2. Narrative Synopsis of Findings

PPC/DI 002

Report Number: _____

BIBLIOGRAPHIC REFERENCE REPORT (BRR)

A. QUERY DESCRIPTION

1. Number of Companion SIMILAR PROJECT DESCRIPTION REPORT, if any: _____.

2. Specific Document and/or Project for which Search was Conducted:

_____.

3. Output Recipients/Copies of Report forwarded to:

a. _____.

b. _____.

c. _____.

B. RETRIEVAL OF EXISTING BIBLIOGRAPHIES RELEVANT TO SEARCH:

TITLE	AUTHOR	PUBLISHER	YEAR

Identification of Most Relevant Existing Bibliography:

TITLE: _____

COMMENTS ON RELEVANCE:

Prepared in PPC/DI by: _____ Date: _____

Reviewed for PPC/DI by: _____ Date: _____

PPC/DI 002.2

C. RETRIEVAL OF EVALUATIVE MATERIALS (Special Evaluations)

a. AID Evaluations:

TITLE	SUBJECT/PROJECTS	COUNTRY/OFFICE	YEAR

b. NON-AID Evaluations:

TITLE	SUBJECT/PROJECTS	ORGANIZATION	YEAR

D. KEY TITLES ON SUBJECT OF QUERY (Other than Bibliography or Evaluation)

TITLE	AUTHOR	PUBLISHER	YEAR

PPC/DI 002.3

E. LIST OF APPENDIXES TO THIS REPORT:

METHODOLOGY FOR GENERATING THE SEMI-AUTOMATIC RESPONSE PACKAGE

I. THE SEMI-AUTOMATIC RESPONSE PACKAGE

The semi-automatic response package is triggered by information from a Mission or Bureau that indicates that a new project is being considered. A PID, this is a "semi-automatic" response, DAP, or a letter or cable, this is an "on-request" response, may be the source of such information.

The response package generated by PPC/DI is developed in two steps:

A. Key word based retrieval; AICS codes
B. Integrated presentation of information.

A. KEY WORD RETRIEVAL OUTPUT

A PID, Letter or cable is searched by a PPC/DI Information Specialist to locate key words that refer to the problem, goal purpose of the project being considered. Appropriate AICS codes are also noted. Using the identified key words, AICS codes, a DIS search, supplemented by such manual search as is deemed appropriate, is performed. That search results in the development of three intermediate information packages, as shown schematically in Figure 1.

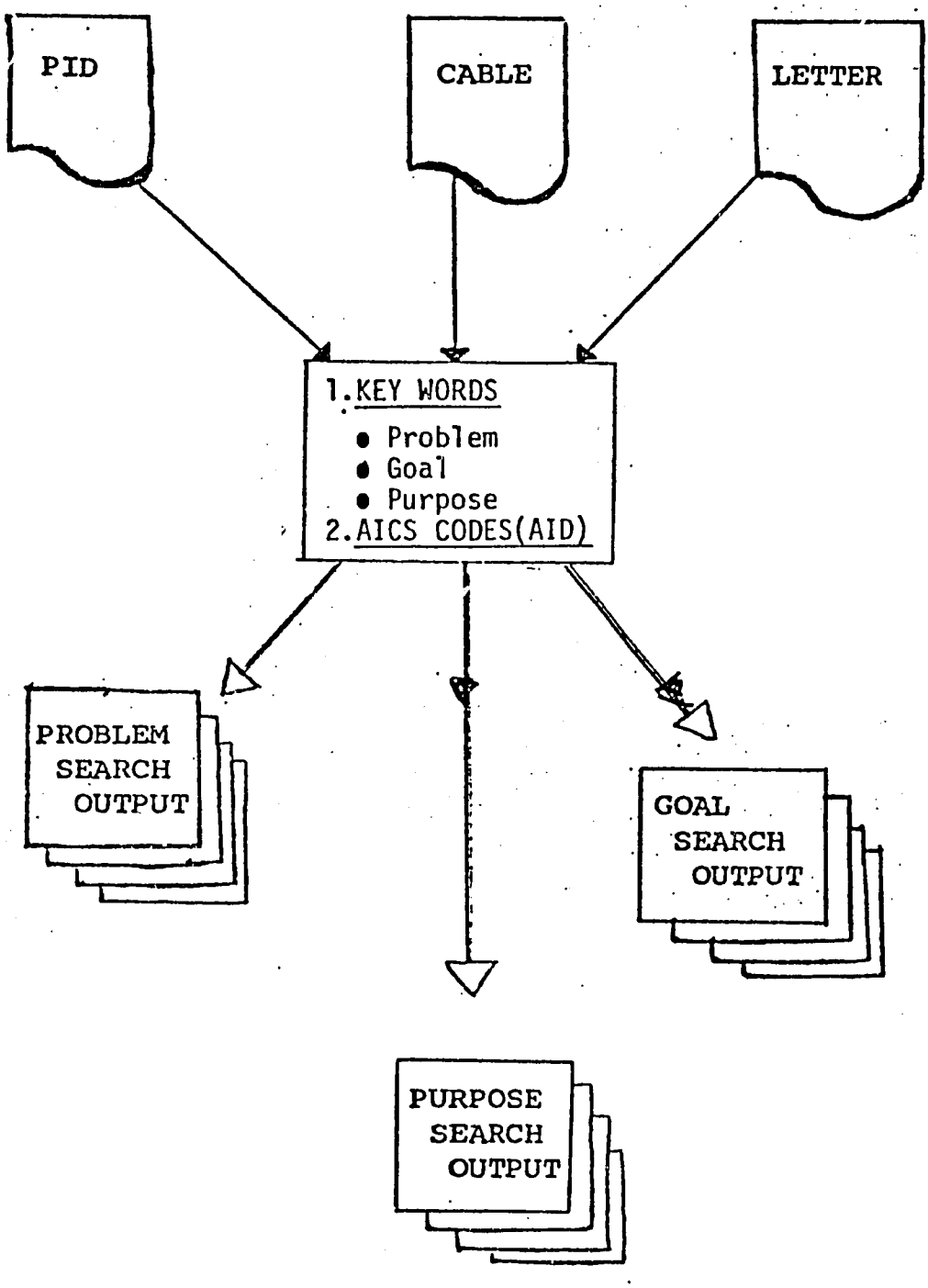
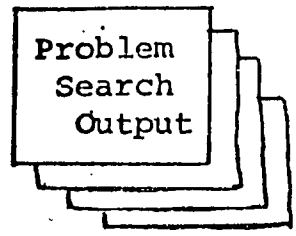


Figure 1. Key word/AICS code searches result in three intermediate DIS output packages



1. Problem Search Output

The format of the Problem Search Output package and its contents are outlined below. The following sections identify both the order in which such intermediate packages would present information and the display modes used in those sections.

a. Similar AID Projects

The search using AICS codes and "problem" keywords would be used to identify all other file entries that contain a similar problem statement. For all entries with a similar problem statement, all descriptions of project's by project purpose would be identified and sorted into two categories:

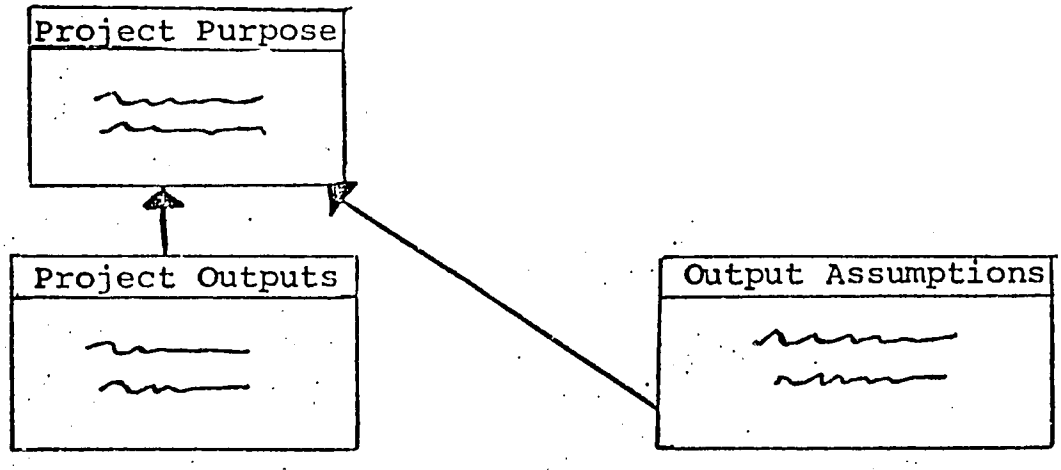
- o Similar problem - similar purpose;
- o Similar problem - different purpose

In this section the first of these groups of projects -- those with a similar problem and similar purpose are discussed. The following section (section b) shows the displays used with the second type: similar problem -- different purpose.

For each entry in the DIS file where a similar problem -- similar purpose are found, a number of information items will be retrieved and placed in the problem search output package.

(1) The Similar Purpose Display

For each instance where similar problem -- similar purpose is found, the purpose statement and its hypothetical basis will be displayed. That is, with each such purpose, both the narrative statement of the purpose, and the narrative statement of the necessary (output) and, where they exist, sufficient (assumption) conditions for achieving that purpose will be retrieved. The display created for each such similar problem -- similar purpose will be:



The actual narrative found in file will be displayed in the boses as shown above. While this display will be created for all of the 1...n projects found in the category similar problem -- similar purpose, these displays will not be placed together in the hard-copy report on problem search output. Rather all other information on the first of these projects will be included following the display format shown befre the display and related information on the second project in this category is presented. The additoional information to be provided on each project in this category is identified below.

(2) Performance Assessment

Evaluative material (where available) from the file will follow directly each project purpose display. That evaluative material will be drawn from the PAR and other evaluation abstract material available on the project. It will be presented in summary form, and is given attention early in the report on each project to guide the Information Specialist concerning the depth to which he may wish to pursue this project. The three evaluative elements displayed in abstract form in this part of a report on a project are:

(a) Planned v.s. Actual Performance
(b) Assumptions - valid and failed
(c) Causal relationships - planned and unplanned

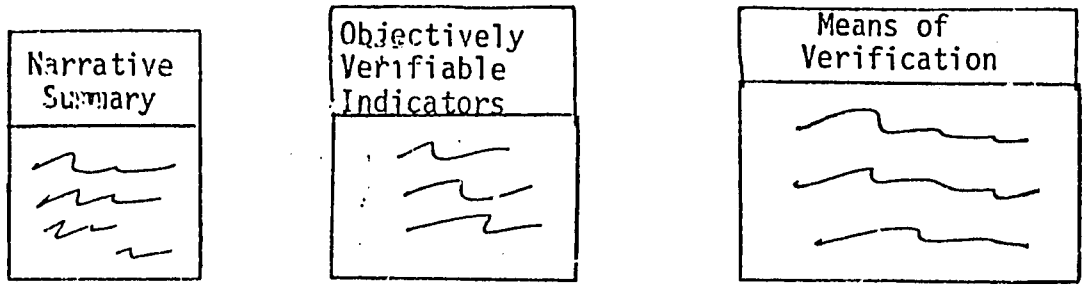
For regular evaluations these items will be covered in a single PAR or other regular evaluation abstract; for those projects where a special evaluation has been done these items will be reported separately.

(3) Sector/Cross-section Evaluations

At minimum, bibliographic reference will be provided where projects in this category were included in multicountry or sectoral (multi-project) evaluations.

(4) Performance Measures

Performance measures are the second display provided for each project in the category. The measures display will be shown for each of the results levels of the project design (outputs, purpose and goal) and will include the narrative summary, objectively verifiable indicators and means of verification at each level, per the diagram below.



(5) Bibliography

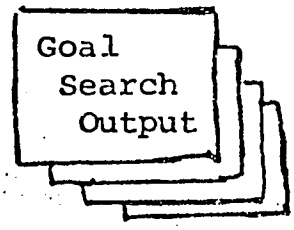
In this section key documents, institutions, and experts will be identified in summary. That is this initial output will inform the information specialist concerning the volume of bibliographic material, allowing him to undertake subsequent retrievals should he so desire.

b. Alternative AID Projects

All projects classified in the search as having the same problem but a different purpose are by definition alternative projects. The displays and related information provided for these alternative projects will parallel that provided on similar projects.

c. Non-AID Projects

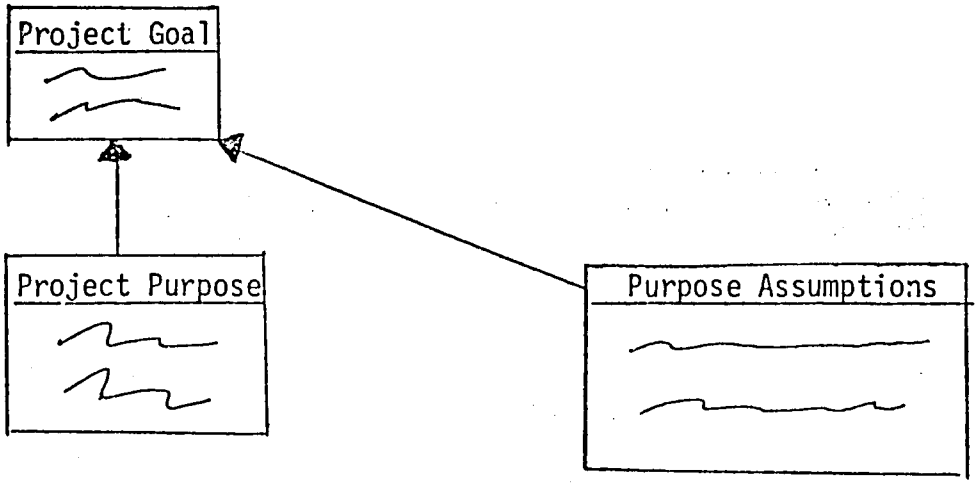
Initial DIS retrieval concerning non-AID projects that address a similar problem, and have either similar or different purposes will produce a listing based on the "related projects information" in file. To supplement this information DIS outreach capability will be applied. The resulting package will be produced following as closely as possible the format for conveying information on AID projects. (The absence of the Logical Framework Approach in non-AID documents will require modification of the presentation format, but the full description of that modified format has not been developed at this time.



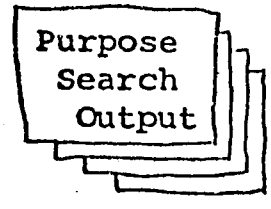
2. Goal Search Output

Goal search parallels in many respects the problem search approach and display. Goal search differs in perspective -- whereas the problem-based search focuses directly on the project under consideration, the goal search looks beyond the project to the program level. Through a goal search it is expected that a context in which the proposed project might fare well or poorly can be tentatively described. The goal search output differs in one display from the format described above

for the problem-based search. That difference is a goal/purpose display, which in this package would be the first output entry. The display form will be as follows:



The remaining elements of the output will be generated only for project purposes identified by the goal search. As in earlier problem-oriented packages, the projects will be divided into similar and alternative projects depending upon their similarity to the project for which the DIS response is prepared. Only the additional projects found by this search will be reported in this section.



3. Purpose Search Output

The purpose search output is used to find similar projects. The search is made without the constraint of a "similar problem" or "similar goal" statement. Thus this output may identify projects that the other two have not found. It should further be recognized that this final search will display all of the projects with similar

purposes. However, detailed output will be provided only for those similar purposes that have not been covered in the problem or goal searches. Only the additional projects found by this search will be reported in this section. All of the formats and outputs used here will parallel those used for the display from the problem search's output on similar projects.

B. INTEGRATED PRESENTATION OF INFORMATION

The AICS codes/ keyword retrieval output packages form a working file for the Information Specialist. It is expected that additional steps will be taken by the specialist to translate this working file into a document that is of clear use to the project designer. That is, the specialist must analyze and reorganize the information from the intermediate output packages into a form that has clear meaning and can be breifly summarized. The form of this final user output package is expected to be highly variable -- depending upon the nature of what the intermediate DIS and outreach search produces by way of a working file.

While the specific elements of the final user package depend on the contents of the DIS information specialist's working file

a format can be defined. The first element of that format must be a user package face-sheet. The contents of that facesheet will describe the file the DIS specialist has amassed through his searches. That description will identify:

1. Total number of projects with similar purposes (independant of which search criteria was used)

2. Total number of alternative project purposes:

    a. by problem
    b. by goal

3. Total number of non-AID projects:

    a. similar purpose
    b. alternative purpose

        (1) by problem
        (2) by goal

4. Patterns in the file

    This section is the key element of the face-sheet. It describes for the user the reason for the information specialists inclusion of all following material and shows the order in which it is going to be included in the user report.

Pattern identification is the key to the development of the final user package. While not all patterns can be anticipated a number of examples can be identified -- and these examples suggest the way in which modules for the user will be developed. Similarly, the schematic in Figure 2 shows how such a final user package might be arranged.

Sample patterns that might arise in a working file include: tendency for a specific assumption to fail, pattern of overachievement at the output level on one standard output, pattern of host support being either high or marginal, etc.

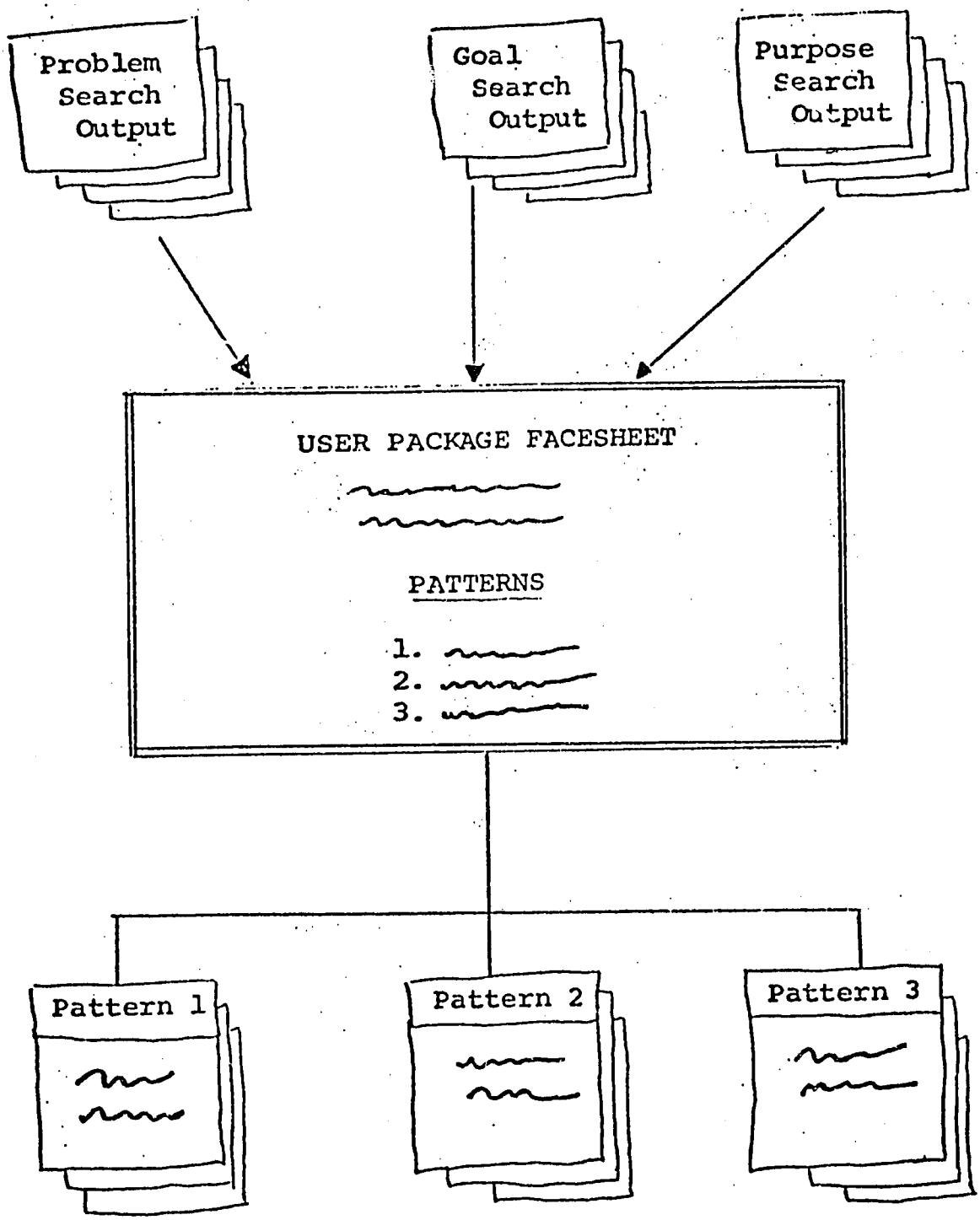


Figure 2. The DIS Information Specialist reviews his intermediate output and translates it into a meaningful report for the final user.

As the pilot moves forward more details of the form of the final user package will be identified. At this time it is expected that such user packages, if short, can be transmitted by cable (and possibly all user package facesheets can be transmitted in this way); larger packages will normally be mailed. A facesheet should go out prior to assembly and shipment of the final user packages.

12/3/76

TO: Carter Ide

FROM: PCI

SUBJECT: Preliminary Findings Based on the Preparation of Semi-Automatic Packages for the DI "Pilot Test"

While the findings reported here are preliminary, and are based only on the preparation of the "pilot packages", they may be of use in the preparation of a statement of what DI has done and learned to date.

DI has prepared three "pilot" or sample responses that might be typical of what DI would prepare on a semi-automatic basis when PID's are received from Missions. In the course of preparing these packages, DI found that:

- While the PID's had been selected from the 100 series (agriculture), many relevant past AID projects were in other series, particularly in the 200 series:

  a. It is possible to use the technical and purpose codes to define large groups of projects that may be useful in making a specific response;

  b. It appears to be possible to use the project titles to determine a large portion of the projects most likely to contain pertinent data. Project Title may turn out to be the second step in a search process that is aimed at identifying a group of projects that are relevant for a specific response.

- Key words based on project GOAL, PURPOSE and PROBLEM statements are a preliminary search device for locating relevant projects. A key word search appears to be appropriate after a code and title search. The key word search has a primary function of eliminating irrelevant projects --- the key word search alone is not adequate to determine which projects are in fact the most relevant for a specific query.

Further:

a. The key wording of projects by DI's abstracters is adequate;

b. Given the type of words used in key wording, the information specialist must sort using a relatively large number of words if he is to capture all of the project that address one or another of the ideas discussed in a particular query (PID).

c. Some "key words" appear to be "master words" -- that is they are coded as key words for virtually all of the projects in the final set used in making a specific response. Eventually some economies can be realized if these "master words" can be catalogued, however it may be that discovering them will have to be a trial and error process

It appears that in order to reduce the number of AID projects to a manageable size for the information specialist, a multi phase (redundant and successive) iterative search is necessary. The minimum search set consists of three phases:

1) Purpose codes
2) Project Title
3) Problem & Purpose statement key words

Technical codes and special concerns codes have not been tested extensively since they were not in the existing file.

- Of the project elements abstracted, GOAL proved to be the least useful as a sorting device in the "pilot". At the other end of the spectrum, OUTPUTS appear to be more critical than was hypothesized. PURPOSE and PROBLEM are both basic elements and it appears that a good search can be conducted based on knowing either one of these elements.

  STRATEGY and PROJECT DESCRIPTION were useful abstracted elements in the search, but only after the information specialist had already found either PROBLEM, PURPOSE or OUTPUTS to be relevant to the query for which the search was being made.

- While, in general*, it was possible to determine whether a project was relevant using codes, titles, key words, and finally PURPOSE, PROBLEM and OUTPUTS from the abstracts, it was often necessary for the information specialist to pull additonal information from the project file in order to prepare a summary description of the project that would be potentially useful to the individual for whom the search was made. That is, the specific information of interest was often only refered to in the abstracts, e.g. "credit provided", and supplementary data from the PP was crucial in explaining for the user how or to whom the project provided credit.

  - Evaluation abstracts as they are currently prepared are not adequate as summaries of evaluative (PAR) information. In preparing the "pilot" packages this information had to be resummarized for inclusion in user packages. This was not the case for special evaluation summaries; this latter type of evaluation summary appears to be adequate.

  - Outreach into three types of organizations was tested, and the basic finding was that DI will need to develop institutional relationships of a general nature before project information is readily accessable from either international or private U.S. organizations. Similarly, DI may need to develop relations with other U.S. government organizations if projects conducted by these agencies are to be accessable. While DI was able to access a limited amount of project information from other sources for the pilot, what should be noted is that what was accessed was limited to those non-AID projects that had somehow been made available to the ARC over the past years.

* Credit and/or cooperatives had not been listed in key word lists for half a dozen projects where this should have been done.

- Outreach for non-project information was found to be easier than the process reported for project information. Nevertheless, this process is not a smooth and timely one at present. Libraries outside AID are not generally prepared to search using AID's project related key words, especially small libraries of institutions that carry out project overseas, e.g. CUNA International. Where libraries are prepared to do such searches their material is often automated, and it can take up to six weeks to secure the results of a key word based query. Thus outreach procedures in general will need to be a basic area for DI development in the coming months if "reasonable" deadlines for making responses to field personnel are to be set and met.

- Development of the first pilot packages did not give DI a clear sense of how long it will take to prepare a response under operational conditions. However the pilot has led to the conclusion that as the system builds up, and as the number of responses made increased, particularly within specific subject areas, the time per response can be expected to go down. The following table illuminates the data for this conclusion.

	RESPONSE 1	RESPONSE 2	RESPONSE 3
	Philippines PID	Bangladesh PID	Pakistan PID
Total projects used in response	28	19	19 & 1 PRP
New projects used in successive responses	28	8	1 PRP

As the table shows, after the initial effort to prepare the response for the Philippines PID, the preparation of the second and third responses required successively less effort.

- Preparation of the pilot PIDs indicated that the work can be done primarily by information specialists who are "generalists" -- individuals with broad general experience rather than subject matter specialists, as long as these generalists can work with subject matter specialists at a minimum of two key points in the development of a response:

  (1) Subject matter expertise is needed in the initial process of analyzing the inquiry (PID) and determining what key aspects must be addressed. At this time the subject matter specialist must also convey, orally or by references to basic works, the general branches of the subject matter of the inquiry, including explanation of specialized terminology. His assistance is required in formulating the key word list for the search that will be performed.

  (2) Subject matter expertise is again needed in a consultative manner to critique preliminary drafts of the response prepared by the generalist, specifically with reference to the "narrative syhopsis" of the information package and the adequacy of the search that has been conducted, i.e., he must ensure that no important area has been overlooked.

PPC/DI

SIMILAR PROJECT DESCRIPTION REPORT (SPDR)

A. QUERY DESCRIPTION

1. Type of Search/Response Conducted: Direct response to query ☐ Semi-Automatic ☒

2. Specific Document and/or Project for which search was conducted:

PID: 4920300: Cooperative Marketing -- Philippines

3. Output Recipients/Copies of Report forwarded to:

a. F.W. Sheppard, Jr. -- USAID/Philippines

b.

c.

B. SEARCH DESCRIPTION

1. Project Memory Search:

a. AID Projects

(1) Universe of potentially relevant projects: 2000+.

(2) Number of Projects Reviewed in Search: 445.

(3) Number of Similar Projects Identified: 10.

(4) Other Projects that Use An Alternative Approach: 16.

b. Projects Supported by Other Organizations

(1) Number of potentially relevant projects identified: 6.

(2) Number of Projects Reviewed in Search: 6.

(3) Number of Similar Projects Identified .

(4) Other Projects that Use An Alternative Approach: 3.

c. Institutions/Organizations Searched for Project Information:

A.I.D., IBRD, CUNA International, International Basic Economy Corporation (IBEC).

SPDR prepared in PPC/DI by: DI Pilot Project Staff Date: 11/8/76

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C. SIMILAR PROJECTS SUMMARIZED IN THE REPORT

ORGANIZATION	PROJECT TITLE	NUMBER	COUNTRY/OFFICE	DATES	AID COST	TOTAL COST	REASON PROJECT INCLUDED
AID	Ag. Cooperative Development	5130277	Chile	74---	15,000,000	15,000,000	Private Coop Bank
AID	Agricultural Credit	6210117	Tanzania	73-80	1,600,000	1,675,000	Coop Development Bank
AID	Cooperative Development	5220074.2	Honduras	67-74	1,220,800	1,220,800	Marketing Cooperatives
AID	Senegal Cereals Production	6850201	CWA/Regional	76-78	118,000	118,000	Credit/Marketing Coops
AID	Niger Cereals Production	6830201	Niger	75-78	9,636,000	11,271,000	Coop Management Training
AID	Rural S&L Cooperatives	5140190	Colombia	76-78	5,480,000	5,640,000	Coop Management Training
AID	Ag. Coops (ACDI)	6170006	Uganda	69-73	3,400,000	3,850,000	Coop Management Training
AID	Cooperative Development	5220074.1	Honduras	66-72	27,600	115,600	Coop Management Training
AID	Agricultural Cooperatives	5220105	Honduras	75-77	300,000	405,000	Coop Management Training
AID	Farmers Organizations	7300291.2	Vietnam	67-74	538,000	538,000	Coop Management Training

SDRP page 3

D. ALTERNATIVE APPROACHES SUMMARIZED IN THIS REPORT

ORGANIZATION	PROJECT TITLE	NUMBER	COUNTRY/OFFICE	DATES	AID COST	TOTAL COST	REASON PROJECT INCLUDED
AID	Rural Credit & Coop Development	5200226	Guatemala	73 ---	4,500,000	4,500,000	SF credit from Natl. Bank
IBRD	Agricultural Credit	PA-16a	Niger			584,000	SF credit from Natl. Bank
IBRD	Ag. Credit & Agroindustries	P-1816-TV	Turkey			173,000,000	SF credit from Natl. Bank
AID	Cooperative Development	5200200.1	Guatemala	71-76	751,000	751,000	SF credit from Coop Fed.
AID	Ag. Credit Loan	4890688	Korea		14,000,000	14,000,000	SF credit from Coop Fed.
IBRD	Agricultural Credit	P-1066	Korea			18,200,000	SF credit from Coop Fed.
AID	Ag. Credit & Ag. Organizations	7300291	Vietnam	65-77	8,287,000	8,287,000	Private Rural Bank credit
AID	Bicol River Basin Development	4920260	Philippines	74-79	1,750,000	112,003,000	Private Rural Bank credit
AID	Ag. Development & Rural Industry	4920126	Philippines	68-78	9,711,000	9,711,000	Private Rural Bank credit
AID	Rural Credit Union Development	6210085	Tanzania	68-70	263,000	332,000	Credit Unions for SF
AID	Credit Union Development	5190094	El Salvador	70---	2,215,000	5,135,000	Credit Unions for SF
AID	Agricultural Credit	6200082	Nigeria	61-73	1,236,000	1,236,000	Credit Corporation
AID	Ag. Credit & Agrarian Reform	5190012	El Salvador	64-75	5,581,000	5,581,000	Quasi-public credit agency
AID	Upper Lofa Rural Development	6690088	Liberia	76-78	5,000,000	16,900,000	Ag.Services Package for SF
AID	Ada Agricultural Development	6630162	Ethiopia	71-79	3,000,000	3,642,000	Integrated credit/markets
AID	Ag. Information Management	5960048	ROCAP/LA	75-77	1,491,000	2,986,000	Regional Institute

* Additional local currency supplements this figure.

SDRP page 3 continued

D. ALTERNATIVE APPROACHES SUMMARIZED IN THIS REPORT

ORGANIZATION	PROJECT TITLE	NUMBER	COUNTRY/OFFICE	DATES	AID COST	TOTAL COST	REASON PROJECT INCLUDED
AID	R&D Food Crop System for SF	5380007	LA/Regional	76-78	433,000	861,000	Regional Market Information
AID	Northeast Ag. Marketing Loan	5210308	Brazil	73-77	36,000,000	41,000,000	National market news svs.
AID	Ag. Development & Agrarian Ref.	5190012	El Salvador	64-75	5,581,000	5,581,000	Min. Ag. Market Info. *

* Project listed twice in this report, but only one summary is included.

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D. . SYNOPSIS OF MATERIALS REVIEWED IN THE SEARCH

1. Coverage of the Synopsis:

Both project and outreach materials (found in the companion BRR have been reviewed.

2. Narrative Synopsis of Materials Analized:

- Search yielded only two projects involving Cooperative Banks. A number of alternative approaches for providing credit to individual small farmers and/or cooperatives were identified. Review of Spring Review: Small Farmer Credit volume on Philippines indicates that a number of these alternative solutions, e.g., the Agricultural Credit Administration, private rural banks, are already in existence and some are reportedly focused on providing credit to small farmers.

- Federations, as central cooperative structures, were found more often in project memory than were single purpose central institutions such as banks. Further, rationale for federations often included centralization of backstopping/training operations such as those proposed for the AMCs.

- Project memory indicates that market information systems/services are generally created at a national or regional level and designed to serve multiple users, e.g., cooperatives. No past projects were found where a market information system had been developed within a single potential user organization.

- Memory search identified several projects that involve marketing cooperatives that also provide credit services. PPC/DI's search on marketing constrained to general information: second level search can be conducted for you if information is provided to us on specific functions of proposed marketing cooperatives, e.g., storage, produce transportation schemes, etc.

- AID/OIT currently preparing for worldwide seminars in "Management" for developing country managers. Project may want to utilize this potential resource. Project memory search identified numerous coop manager training efforts; a selection are included herein.

- PID consistent with some AID Evaluation, AID Spring Review and FAO findings concerning the need to establish connections between credit and marketing. One AID evaluation however suggests that regional or area marketing cooperatives may be difficult to establish, (abstract appended in BRR), also see Chapter 13 in volume by Donald, attached.

SUMMARY OF PROCEDURES FOR PREPARING A "QUICK RESPONSE" PACKAGE DEVELOPMENT INFORMATION

OVERVIEW:

The "quick response" information package prepared by Development Information (DI) is intended to provide to the project designer:

-a summary.description of all past related AID projects (from the computer file)

-identification of the key issues and problems the project is likely to encounter (based on the analysts own interpretation and experience)

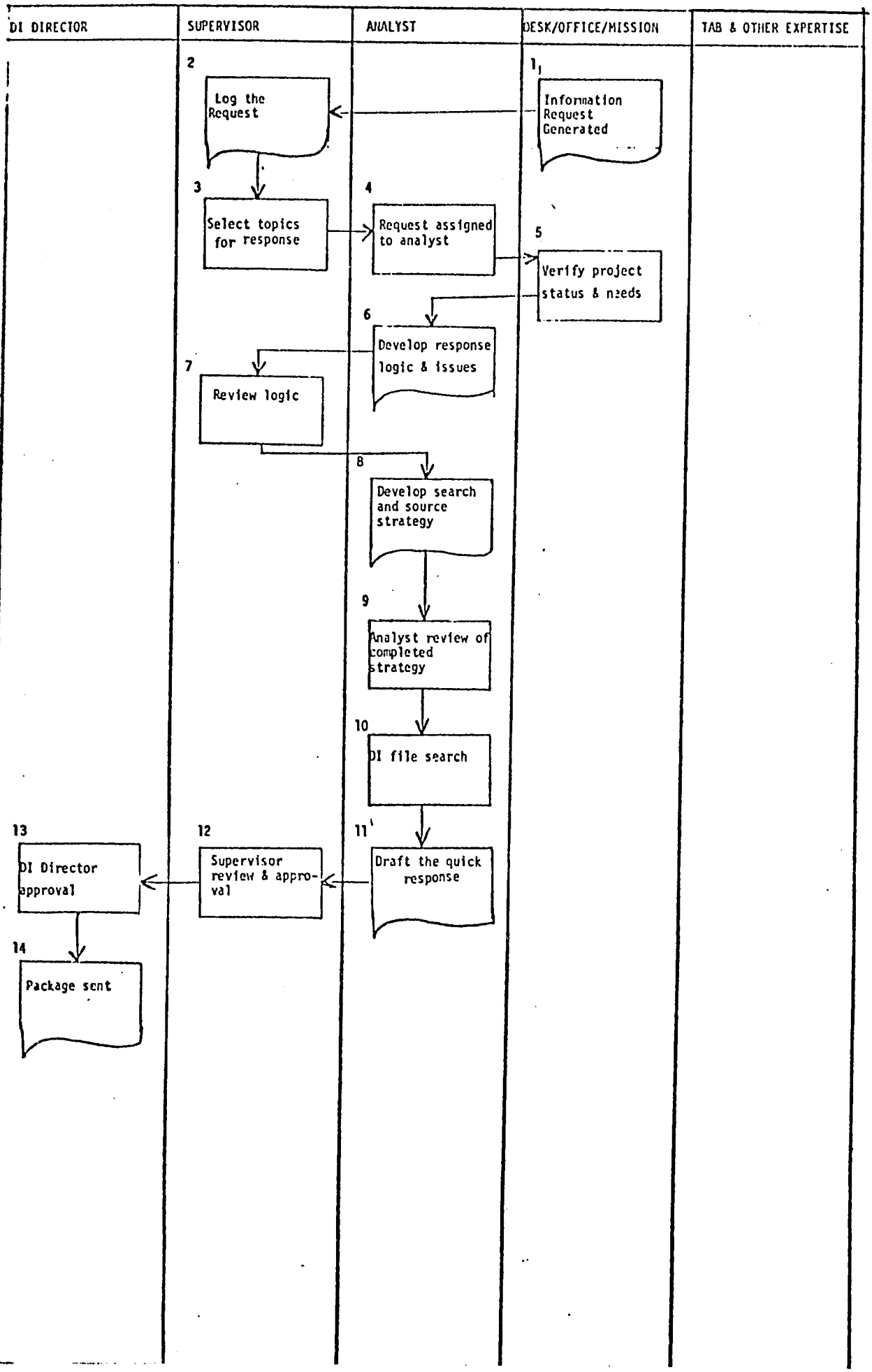
-a description of possible other sources of information the analyst could search

The primary objective of the " quick response" is not to provide all the information that could possibly be retrieved on the topic. Rather, the primary objective is to stimulate the project designer to think more carefully about the information he does need, and to formulate his needs in a concisely stated request for the kind of information or guidance which would be of greatest value to him. (these would become the basis for subsequent requests). In some cases, there will be no subsequent request, either because the original information sent was adequate, or because changed project circumstances result in changed requirements, or because the project schedule is such that there is no time to wait for additional information.

The premium on a "quick response" is on speed, but not at the expense of quality. It will normally take no longer than to prepare and send a well-reasoned, thoughtful response package than it will to prepate one of sub-professional quality.

The following describes some of the procedures for developing the packages. You should realize that package preparation is as much an art as it is a science, and that the attached can only be guidelines, not rigid recipes. Your own experience with what works and what doesn't will be the basis for modifying and improving these guidelines.

PROCEDURES FLOW CHART FOR QUICK RESPONSE



The steps described below are illustrated in the flow-chart. Boxes in the flow-chart refer to processes or activities. The figure with the curved bottom line refers to a document or paper which is produced. The diamond shaped figure indicates a decision which is to be made (generally a yes-no decision).

1. INFORMATION REQUEST GENERATED

Requests for DI information services can come from a number of different sources. A frequent source will be submission of PIDs from an AID field office to AID/W for review and approval (PIDs may also be written in Washington). DI acquires both master lists of PIDs and copies of individual PIDs.

Information requests can also come from a number of ad hoc sources. These include direct letters from the field offices sent either to DI, or to a desk or bureau office which forwards the letter to DI. Requests can come from memorandums, phone calls, or other sources within any part of AID.

2. LOG THE REQUEST

The first step taken upon receipt of an information request is to put the request into the system. A list of requests, kept by the analyst's supervisor, serves as a comprehensive and systematic inventory of requests. It is used to facilitate overall DI management control and to process information requests expeditiously.

3. SELECT TOPICS FOR RESPONSE

The supervisor (often in conjunction with senior DI management) will select which requests will be responded to and in what order. This selection will be based on subject priorities, progress made in setting up various DI data bases,

the extent to which several requests are similar, overall office workload, etc. Initially it will not be possible to meet all information requests, and the supervisor's function at this point is to ensure that the requests which are most important and can best be handled receive top priority.

4. REQUEST ASSIGNED TO ANALYST

The supervisor will assign information requests to the analysts. The supervisor will make assignment decisions based on overall DI priorities, the total number of requests requiring processing, the number of ongoing assignments each analyst has, and the interests, abilities, and topic-familiarity of each analyst.

In assigning the request, the supervisor and analyst may discuss the strategy to be used, ideas concerning the logic, etc. The supervisor may recall other similar projects which have been done and refer the analyst to the project files or the analyst who did the similar projects. The analyst will set his own target date for completing the work and this date is to be entered into the log. To enter an assignment the analyst completes "Form 1" and gives this form to the office member responsible for log maintenance.

As a rough rule of thumb, each analyst will be expected to complete two quick response packages weekly and at any one time be working on from 3 to 6 packages. (This rule of thumb assumes the analyst is working only on quick responses -- the numbers are reduced accordingly if the analyst has other requests he is processing).

5. VERIFY PROJECT STATUS AND NEEDS

The first step the analyst takes is to verify the project status -- usually with a call to the relevant desk or technical officer. In this step, the analyst ensures that there is a need for the DI package, and that the available "context" information is known. Among the questions the analyst asks are

a. has the project been approved yet?

b. when is the PID review scheduled?

c. have recent guidance cables been sent concerning this project?

d. does the mission have an expert who is working on the project now?

e. what do you see as the primary information needs which DI could provide to assist the project designer?

f. is there anyone in Washington at the present (from the field or otherwise) who has a special familiarity with this particular project. (Note that this may include AID/W persons who were sent out to assist in developing the PID).

g. what particular issues do you see as important?

The desk officer should be encouraged to provide as much supplementary information on the project background, special characteristics, etc., as possible. Explain what you are trying to do -- provide the field project designer with a brief history of AID and other experience in the area and specify the kinds of additional information DI can provide. Your tone should be one which shows you are trying to be helpful, and that you will treat special insights and information which he may provide in confidence.

You may also request the names of other persons -- technical experts in AID, etc. -- the desk officer would suggest you speak with.

Mission personnel in Washington are an excellent source of information concerning project needs -- make sure you find out who from the field is in town.

The analyst may find that the project has been cancelled, or review will be substantially delayed and that it would not be useful to prepare a response package. In these cases, the search would end. If in doubt, discuss this with the supervisor. When a project is cancelled or delayed, it is taken off the active request log and re-entered on a special listing maintained by the supervisor and the individual responsible for the log.

6. DEVELOP RESPONSE LOGIC & ISSUES

The analyst has verified that it is appropriate to conduct the search and the starting point is to develop (a) the project logic, and (b) a description of key issues and problems. Discussions with the desk officer may have provided some clues as to the major issues and problems.

The format for specifying project logic is the "Logical Framework" elements of goal, purpose, and outputs. If you are not familiar with "LogFrame" terminology and usage, obtain suggested readings from the supervisor. The basis for conducting the search is to start with the logic of the project using goal, purpose and outputs. This format will both help you conduct the search and permit your colleagues and supervisor to offer suggestions.

The "best-case" PIDs will state the goal, purpose, and outputs -- the "worst-case" will only hint at these elements, or describe them very loosely. The analyst studies the PID and attempts to infer enough information to either construct or validate the existing LogFrame. This should not be viewed as an exercise only in constructing LogFrames. Rather, it is the process of identifying the problem to be solved and ways to search for information.

As the analyst becomes more experienced, he will be able to identify alternativ purposes to achieve the goal, and alternative outputs to achieve the purpose. These should be listed on the Search Strategy Worksheet as alternatives. The completed worksheets for prior searches, and discussions with colleagues, are the best source of alternatives. Throughout the process the analyst should interact informally

with other analysts to obtain the benefit of their thinking and experience with similar projects.

In attempting to identify special issues and problems, the analyst should give special attention to where the PID is weak. The PID will sometimes specify areas where the project designers are not certain. Additional clues are often found in the "issues" section of the PID, and, by inference, in the types of special talent requested and the areas which indicate "we have no data."

7. REVIEW LOGIC

After making his best attempt at the project logic, the analyst reviews a typed draft with the supervisor and/or his peers. Generally the supervisor should participate in the review, but colleagues may also be used. If the supervisor is unavailable or has a backlog of other work such that there will be a significant delay in getting supervisory review, the analyst should not delay the review, but instead use one or more other analysts.

8. DEVELOP SEARCH AND SOURCE STRATEGY

Following the logic review, the search and source strategy is developed. For the quick response, the search strategy includes key words for (a) computer search, and (b) ARC search. Key words are selected by defining the significant terms from the project outputs, purpose, and goal, and from alternatives that have been defined in the logic review.

Sources may be found by reviewing (a) internal DI card files and listings, and (b) the search strategy worksheets for prior similar projects. The analyst will interact with other analysts as needed, and may refer to other expertise (primarily TAB) as required.

In preparing a list of sources the analyst should proceed as if he were about to undertake a full search -- the listing of sources should at this point be reasonably comprehensive. The analyst should refer to the source "checklist" when preparing his list. The "checklist" is designed to remind the analyst of the range of source types that may potentially apply, e.g., private industry, U.N. agencies, etc.

9. ANALYST REVIEW OF COMPLETED STRATEGY

Each strategy worksheet is to be reviewed by other analysts and the superviso This may be done at the regular analyst meetings, or the analyst may call a special meeting for this purpose, if waiting for the regular meeting will threaten completion of the response by the target date.

It is important that analysts do everything within their ability to meet the target date for completion which they have set. If these dates are in danger of being missed or are missed, the analyst owes an explanation to his peers.

The purpose of the analyst reviews is to take advantage of the experience of your colleagues in improving the search design, and ultimately the package. You should welcome comments and suggestions as to additional possible issues, modifications to the logic, etc. Comments and suggestions should be offered in the spirit of constructive help, not criticism. (However, analysts may be open to some critical review if they ask their supervisor/peer group for assistance without first doing their "homework" concerning a basic strategy and list of sources.) The review is expected to add depth to a search strategy -- it is not intended to be the forum in which a basic approach is developed.

10. DI FILE SEARCH

Based on the set of search terms you developed and reviewed with other analysts, conduct a search of relevant projects in the data bases.* As a rough rule of thumb, your search should turn up between 10 and 25 projects. If the number being retrieved is greater than 25, you may need to focus your search terms more carefully. If the number is less than 10, you may need to broaden them. There are no hard and rigid rules as to how many projects the file search should turn up. The only guidance is that you should turn up projects which are conceivably of relevance to the project designer. In doing so, you will need to continuously review the computer output and attempt to put yourself in the frame of mind of the project designer and ask if the output would provide a sufficient basis for addressing the key issues and problems you have defined.

Where you find 25 genuinely interesting projects, you should prepare all of them for shipment to your users. Where these 25 (or whatever N you find), or some subset, are redundant (same goal, purpose and outputs), you may select a typical example for each cluster of identical projects. In selecting a typical example, always select the project with the greatest amount of evaluative data.

11. DRAFT THE QUICK RESPONSE

This step is the most essential in the process. Based on your search, you must interpret the results in a manner meaningful to the project designer. It is not sufficient to send the computer printout -- you must describe the important elements of the problem as you saw them, how you conducted the search, the results of the search, and additional areas that might be covered

* Instruction for conducting this search will be appended to this chapter.

in a more lengthy analysis.

There is no "standard" letter to accompany the printout. The only part of the letter which is the same from response to response is the paragraph which explains DI. The remainder should be tailored to the issues/problems you addressed and to the needs of the reader.

The letter will generally be from 2 to 5 pages long, and be both appropriate and of high quality. By appropriateness, we mean relevance to the particular problem the receiver faces. By quality, we mean writing the letter in such a manner that the reader can replicate (retrace in his imagination) the steps you went through. Quality also refers to such things as proofing your letter for grammatical and spelling mistakes.

One approach to drafting the letter is to use the "documentary" or "here is what I did" approach. In this fashion, you share with the reader your own interpretation of the problem you were trying to solve. Describe how you saw the project logic, particularly if that differed from what was included in the PID submission. Describe the major issues you envisioned, and discuss how you went about the computer search -- which key terms were used, etc. Describe the blind alleys you encountered, the alternative approaches you considered, etc.

The essential objective of the letter is to stimulate the kind of thinking in the project designer needed for him to specify his real information requirements Project designers will often not know what their real needs are -- your letter should be a catalyst by which he can define the information he needs to fully do his job. Approaches to accomplishing this include the question-approach, in which you specify additional questions which the project designer may wish to have answered. Another approach is the source-approach, in which you describe the alternative information sources you could investigate and the type of information which is likely to be available from them.

Writing high-quality, thought-provoking letters is as much an art as it is a science. Your ability to define issues and information in a manner meaningful to project designers will improve with experience, and with greater contact with your colleagues.

You should begin to draft the response as early as possible in the process -- as soon as you have defined key issues and problems you can begin. You may want to have other analysts review drafts of your letter. Feel free to ask your supervisor for assistance if you are having difficulty. The office will maintain a file of illustrative responses which demonstrate the style and tone you should strive for. High-quality response letters, as they are developed, will be added to the file. (Note that as the criteria of appropriateness suggests, it will never be proper to imitate in full a past response -- while the tone and order may be right, such a package would fail in terms of its client-orientation -- its personal touch and clear insight into a new user's problems.)

Your letter should offer the continued assistance of DI in helping the project designer, and should request that he formulate his further needs as concisely and specifically as possible and respond by cable.

12. SUPERVISOR REVIEW AND APPROVAL

Your final version of the letter will be reviewed by the supervisor. He may offer comments, suggestions, or revisions to it before sending it for top level DI clearance. If you have submitted earlier drafts, or discussed the problems you are having with your supervisor, the changes will be fewer.

13. DI DIRECTOR APPROVAL

When the letter meets the standards of quality and appropriateness which are necessary, the supervisor will pass the letter on for DI Director (or Deputy) final review and approval.

14. PACKAGE SENT

The completed package is distributed to the users and placed in internal files. Users include both the field officer and the desk officer, and may include others (such as members of the project review committee). Materials which have been borrowed from the ARC or other sources are returned, and the letter and computer search are placed in central files, where they are accessible to other analysts.

December 22, 1977

REPORT ON FIELD TEST OF DI'S TWO AUTOMATIC PACKAGES: "APPROPRIATE RURAL TECHNOLOGY" AND "INTEGRATED RURAL DEVELOPMENT"

During the week of June 20, 1977, a field test of these two packages was made by PCI through Frank J. Kerber. Visits were made to three West African AID missions: Senegal, Mali and Ivory Coast. The persons interviewed at each mission were:

Senegal: Mr. Schoonover, the RDO
Dr. Vincent, Health Technician

Mali: Mr. Lance Jepson, Agricultural Officer
Mr. Jerome Johnson, Agricultural Officer

Ivory Coast: Mr. Bond, Project Officer
Ms. Mackie, Economist in Health and Agriculture

Each interviewee was given a copy of the two packages and about one half-hour to look them over. Then the interview was conducted by Mr. Kerber, taking notes on a series of nine questions dealing with the content and quality of the packages. These nine questions are attached. The interviews averaged one hour in length. A summary of the results of the field test follows.

Suggestions, cont.:

6. Additional research should be conducted to ensure that all important angles or subtopics of the subject area have been included or mentioned.
For example: Difference between "Appropriate Technology" and "Intermediate Technology" or "Adaptive Technology."
Example: Machine water pumping vs. non-machine water pumping.

7. A list of potentially-useful similar projects might be compiled and included. A statement could preface this list to the effect that, should the mission be interested in further information on these projects, the full similar project description could be forwarded.

8. Similar projects currently being conducted in a given region by non-AID donors, as well as projects completed in the past by other donors should also be mentioned in the similar project section of the volumes.

9. Attempt should be made to integrate the entire package fo the reader. Three pages of introduction at the front is not enough. Transition between sections and individual introducti to each section help reinforce the integrity of the entire volume.

PRESCRIPTION FOR TAKING DI TOPICAL SUMMARY SERIES DRAFTS TO FINAL

Suggestions:

1. Compose Table of Contents for each package, breaking down subject into subheadings, then cataloguing excerpts, abstracts and similar project descriptions under each subheading. Entire volume should be paginated for easy reference of contents.

2. All diagrams and illustrations should be reviewed for:

a) importance or appropriateness to the article

b) reproduction quality.

Where necessary, better reproduction should be done.

3. Remove all lists of individuals.

4. Similar project descriptions should be prefaced by statement as to why it was chosen. Especially important are project evaluations. Relevance of this project to the topic of the volume should be clearly stated and apparent.

5. Articles or excerpts should be prefaced with explanation as to why they are important for the subject area under consideration. Relative merit of different publications is not clear.

AUTOMATIC PACKAGE FIELD TEST QUESTIONS

1. Is a "reading file" the right idea?

2. Will the mission want to see PROJECT SUMMARIES in these volumes?

3. Will the mission want to see lists of individuals and institutions in these volumes?

4. Is the synopsis a necessary/valuable part of this type of volume?

5. Was too much/little included in the APPROPRIATE TECHNOLOG and INTEGRATED RURAL DEVELOPMENT packages?

6. Should the volumes include abstracts or excerpts only? a mix of the two?

7. How is the format and quality? Is Xerox alright?

8. How important is the fact that we have these packages reviewed by experts in Washington (TAB)?

9. Did we pick appropriate topics? What do the missions think should stimulate the development of a volume like these?

RESULTS OF FIELD TEST OF DI PACKAGES

I. Are the volumes a good idea?

Yes- 4 (2 of these said they are useful, not for mission personnel, but for contractors during the design stage)
No-2 (The Senegal mission said that there is too much going on in the field for these to be of much use- too busy for reading technical materials. Dr. Vincent said that the human factor varies so much from country to country that in-depth on-site research is necessary. Otherwise, topical summaries sent to all missions will result in sending inappropriate information to some. A regional version might reduce this problem (ex. Sahel, West Africa, tropical regions, etc.).

II. Project summaries?

Yes- 4

No- 2 (Senegal said that project information does not transfer very often. Projects from other parts of the world cannot be used as models for Senegal.)

III. Lists of individuals and institutions?

Institutions only - 6 YES

Individuals - 6 NO (Such lists are outdated too quickly to be of any use.)

IV. Synopsis?

Yes- 6 (Comments: Keep it to a minimum. AID personnel will not read it. The synopsis for the APPROPRIATE RURAL TECHNOLOGY volume is very incomplete: there are no definitions of intermediate and adaptive

technologies given.)

V. Too much or too little included in the package?

Too much- 2 (Experts will know all this information already For non-experts it is much too technical.) (Non-machine methods of pumping not covered.)

Alright as is- 4

VI. Abstracts vs. excerpts?

Abstracts only- 2

Abstracts and excerpts both- 2

Excerpts only or complete article- 2

VII. Format and quality?

Ok- 4 (Pictures often came out poorly by Xerox. If they aren't of better quality, leave them out. They are often useless as they are.)

Poor- 2 (Comments from Ivory Coast interviewees: The volumes need editing. The illustrations are not well chose The volumes are badly organized. Topic area should be stated first, then references to parts of artic Confusing as it is. No pagination. No table of contents.)

VIII. Review by experts in Washington?

Not important- 2 (Mali)

No opinion- 2 (Senegal)

Important- 2 (Ivory Coast) (Comments: Don't rely on TAB for review. Should be reviewed in the field.

IX. Appropriate topics selected?

Yes- 6

Source of new topics for volumes?

One suggestion: volumes determined by the number of PIDs which are received on a given topic.

Section 3

Outputs to Purpose

Section Three summarizes the progress made by DS/DIU/DI and PCI in producing the Outputs that were presumed to be necessary for establising the Office of Development Information as a viable, cost-effective service unit that contributes to improvements in project design. The first part of the section addresses progress made in producing the Outputs required to establish the Development Information Service. The second part of the section assesses the linkage from Outputs to Purpose and analyzes to what extent the Outputs were necessary and sufficient to reach AID's Purpose level objectives.

A. EXPECTED AND ACTUAL PROGRESS TOWARD ESTABLISHING THE DIS

The central reason for establishing a Development Information Service in AID was to improve project design through institutionalization of a process by which "lessons learned" from past AID and other development experiences were incorporated into the design and development of new Agency projects and programs. This process was conceived of as having two components:

- A subprocess that made information available to project designers on a timely basis;
- A complementary subprocess that provided incentives for using the information made available by the first subprocess.

The initial vision of a Development Information Service, as outlined in PCI's report on Establishing a Development Information Service, anticipated placement of management responsibility for both subprocesses within a single

Agency unit. AID's review of the design for the DIS led to decisions and subsequent actions which, in practice, incorporated only the first subprocess. The second subprocess, involving incentives to utilize information, was viewed by AID as being more naturally a part of its existing project design and approval process; i.e., Handbook 3 includes a requirement to make use of "lessons learned" during the preparation of project design documents. Enforcement of this requirement, in AID's view, was properly the responsibility of Offices that participate directly in the project review and approval process. Thus, DIS came to mean a unit that made information available to project designers on a timely basis.

Removal of the second subprocess from the DIS scope meant that a critical element required for achieving the objective of improving project design would not be within the unit's manageable interest. Nevertheless, AID judged the idea of a limited DIS, which would manage only the first subprocess, to be worthwhile. Based on this modification of the original concept, the Purpose statement for an effort to establish a Development Information Service became:

> A viable and cost-effective unit that provides pertinent information, per the functional specifications of its design, to project designers and managers on a timely basis.

It was AID's hypothesis that <u>if</u> this Purpose was achieved and <u>if</u> the Purpose level Assumption for the DIS (that information would be used) was valid, <u>then</u> visible improvements in project design would result. Demonstrable improvement in project design was, thus, the specific Goal to which the Development Information Service was expected to contribute.

The Outputs known to be necessary if a viable and cost-effective DIS was to be established and made operational were recorded in two Logical Frameworks (Figures I-1 and I-2). The first of these originally listed six Outputs, the last of which dealt with enforcing the utilization of DIS products. The removal of this final Output left five Outputs to be produced during the

initial phase of operations. As suggested in prior sections, a number of Outputs had to be completed before the initial phase of operations could begin. These Outputs were shown in a pre-operations phase Logical Framework for the DIS. The two sets of Outputs are presented below in the order in which their creation was required.

Pre-Operations Phase Outputs (from Figure I-2, dated 1/14/76)

1. Core DIS staff on board and other resources secured;
2. DIS memory functioning for limited scope;
3. DIS-assisted project design completed;
4. Further DIS development planned;
5. Logistics and library activities set forth.

Initial Operations Phase Outputs (from Figure I-2, dated 8/75)

1. Full scale information analysis support provided for important project or class of projects;
2. Based on (1) above, standard (semi-automatic) packages prove valuable to USAIDs;
3. Procedures and organization established to ensure effectiveness of automatic, semi-automatic and special response modes:
   - 3.1 Organization and staffing defined based on alternative work loads;
   - 3.2 Space and equipment projections and budgets;
   - 3.3 Procedures for liaison with other information sources, libraries and other AID systems.
4. DIS utilization demonstrated to field and AID/W planners and managers;
5. Procedures for continuing evaluation and improvement of DIS.

The contract between PCI and AID for assistance in establishing the Development Information Service (AID/otr-C-1501) was targeted to commence at the point where all pre-operations Outputs had been created and all of the initial operations Outputs remained to be created. The tasks specified in the PCI contract of July, 1976, all focused on the creation of Outputs required during the initial phase of DIS operations. In the following pages, PCI reviews the status of the pre-operations phase Outputs as of the time it began work on the

present contract. On subsequent pages, PCI reviews the progress made in achieving Outputs for the initial operations phase of the DIS.

1. The Status of Pre-Operations Outputs at the Start of Initial Operations

The following summarizes the status of the pre-operations Outputs at the beginning of initial operations:

Pre-Operations Output 1: Core Staff on Board & Other Resources Secured

The indicators suggested for this Output dealt with two resources: (a) a core staff consisting of a Director, a Deputy Director, a secretary, an abstractor and two Information Specialists; and (b) a contract for assistance in the establishing the DIS. As of July 1976, when PCI began work, the core staff did not yet include direct hire information specialists. In addition, the abstracting function was being carried out not by a single direct hire staff member but rather by a full team provided through a contractor. The positions of Director, Deputy Director and office secretary were all filled. The technical assistance contract which was targeted for signature in March 1976 was actually signed in July of that year.

The DIS short fall in the area of core staff development (i.e. the absence of direct-hire information specialists) at the time work on initial operations began, had an immediate implication for PCI's work: Information packages could not be prepared without an information specialist staff. In order to reduce the effects of this short fall, it was determined that PCI should provide information specialists for the Office of Development Information on a temporary basis, i.e., from the time the contract work began until such time as direct-hire information specialists were assigned to the DIS.

Pre-Operations Output 2: DIS Memory Functioning for Limited Scope

The target set for this Output was to have data available in automated form from the DIS on one topic or type of project by 8/31/76. The Office of Development Information used a team of contract personnel to abstract the

first set of Agency projects. By August 1976, the Office of Development Information had (a) completed the bulk of the abstracting for projects in the 100 series of the PBAR codes (i.e., those which dealt with food supply) and (b), begun the process of entering data on these projects into the automated system. While the quantity target for this Output had been partially met by the time PCI began work, a review of the quality of the abstracts suggested that a good deal of remedial work was needed. The consequences of this finding for the initial operations phase were two fold: (a) the preparation of pilot information packages would be delayed and (b), a process for correcting and otherwise improving project abstracts (to achieve acceptable quality targets) needed to be initiated. Following this review, PCI was asked to take over the task of guiding and monitoring the development of project abstracts. The contract was amended to provide resources for this task.

Pre-Operations Output 3: DIS Assisted Project Designs Completed

In the original design for the DIS, it was recommended to AID that the information specialists from the Office of Development Information begin their tenure by assisting AID field personnel in preparing the design documents for three "live projects". This exercise, which was expected to require a substantial level of effort and take roughly four months, was never carried out. The purpose of the exercise was to ensure that DS/DIU/DI's personnel fully understood what types of information its future clients needed and would use. The lack of a core staff of information specialists, together with related resource and time constraints, led AID to delete this exercise from the pre-operations Output requirements.

The deletion of this pre-operations task caused some difficulties in the initial operations stage. As reported in Section Two, the process by which the first user information packages were developed began as a theoretical instead of a practical exercise. In the end, a good deal of modification was required. Had the pre-operations step of assisting in the development of several project designs been carried out, time and energy might have been saved later.

Pre-Operations Output 4: Further DIS Development Planned

In August 1976, the Office of Development Information was still undertaking activities aimed at producing the pre-operations Outputs. The Office was not fully prepared to move beyond the tasks at hand and/or beyond the plans for initial operations which had been developed in August, 1975. Thus, rather than attempt to plan future operations during the final stages of the pre-operations phase, the Office of Development Information incorporated a requirement for the development of a forward plan into the PCI technical assistance contract. (The activities undertaken in response to this requirement were reviewed in Section Two's discussion of Task 12.)

Pre-Operations Output 5: Logistics & Library Activities Set Forth

One of the main ideas incorporated in the plans for developing a DIS was that AID would benefit from a consolidation and integration of its information resources. The Office of Development Information acted on this recommendation by (a) subsuming the AID Reference Center and (b) developing approaches for linking the DIS to other automated Agency systems and other Agency and external collections.

Primary responsibility for linking the Office with hard copy information collections within and outside AID was shared by several units in the Office of Development Information. The abstracting cluster was involved in the procurement of project materials, information specialists were involved in the examination of linkages to outside data banks (such as ERIC and AGRICOLA) as well as in locating and using the World Bank project information received by AID. To the degree that these efforts, which continued well beyond the pre-operations phase, involved linkages to automated systems, the Office's systems analyst assisted in a variety of efforts.

2. Progress in Creating the Outputs for the Initial Operations Phase

In the following pages, the Office of Development Information's progress in producing the Outputs for this phase of its development is reviewed.

Initial Operations Output 1: Full Scale Information Analysis Support Provide for Important Project or Class of Projects

The indicator suggested in the Logical Framework for this Output was: "alternative information products -- based on differing extent and intensiveness of information support -- assessed for cost and benefit." To accurately assess performance against this indicator, it is first necessary to review what had been intended by the term "full scale information analysis support." A description of intent is to be found in the report on Establishing a Development Information Service, in sections of that report which describe the materials information specialists were expected to use in preparing response packages. Pages II-16 through II-22 of the report describe the five types of information "files" that information specialists would be expected to use. The five "files" were:

- The Project File This file was expected to contain all project unique information. The report indicated that a portion of the on each project was to be accessible in automated form. Automated data on projects was to be backed up by conventional document files.

- The Country and Program Data File This file was expected to contain national level planning data, including program level goals, programmatic hierarchies and "work breakdown structures" associated with program goals. The basic documents in this file were expected to be AID's Development Assistance Papers (DAPS), World Bank reports and LDC generated reports.

- The Special Studies and Evaluation Data Base This file was expected to contain abstracts of project level and other evaluations. The description given was brief and not detailed as to document sources.

- The Context Data File This file was expected to contain baseline information on social, economic, cultural and anthropological conditions which had proven important to development planners. The information in this file was intended to be both country specific and "state-of-the-art".

- The Technical Data File This file was expected to include ready access to any and all sources of technical expertise and knowledge. AID's Technical Assistance Bureau (now DSB) was expected to be both a primary information source and a route to other sources of information. It was further stipulated that the Office of Development Information should endeavor to ensure that its automated system was compatible with the PARIS system (another automated source of technical data).

Given the design study's expectations concerning the term "full scale information analysis support", performance in terms of this first Output must be judged against two criteria:

- Whether the Office of Development Information accessed the full range of information "files" in preparing its trial response packages, and
- The results of DS/DIU/DI reviews of the costs and benefits of response packages that contained differing levels of analysis and amounts of information.

(A) The Completeness of Information Retrieval for Package Development

The work of DS/DIU/DI's information specialists was limited by the degree to which (a) progress has been made in creating each of the five "files" described above and (b) the quality of the "files" that had been created. Due to constraints and limited progress in both of these dimensions, the information packages developed for the "pilot" tests must be considered incomplete. Further, it is important to note that some of the constraints on completeness that faced those who developed the first information packages persist today. The nature of these constraints is reviewed below.

(1) Progress in the Creation of Five Basic Information Files

Of the five "files" described in the design study, only four were being developed at the time the first information packages were prepared. One file, the Context File, was at that time simply an idea. Progress on the other four files can be described briefly:

- The Project File The Project File was under development at the time the pilot response packages were prepared. Abstracts had been created for the 100 series of AID's purpose codes, the series in which the pilot tests were to be carried out. The majority of the documents in the hard copy files were design documents. Mid-term project evaluation reports (PARs) appeared in some files. However, not all of the evaluation documents for a project were normally found in this file. Virtually no implementation stage documents were housed in the Project File, with the exception of the mid-project evaluation reports (PARs).

- The Country and Program Data File At the time of the pilot tests, the Country Program Data Bank (CPDB) contained a limited amount of information in automated form; e.g., technical and Purpose codes for projects. In addition, the Office of Development Information had on hand DAPs for several countries along with a few IBRD documents. Other offices in AID had more of the type of the hard copy documents intended for this file. However, few LDC generated documents were to be found without visiting such outside sources as the IBRD library.

- The Special Studies and Evaluation Data Base At the time of the pilot tests, special studies had not been well defined as a set of documents. However, work had begun on the development of evaluation abstracts (under a contract between AID/PPC/DPRE and Checchi, Inc.

- The Technical Data File While no single technical file had been created, the information specialists had access to both the AID Reference Center and technical offices in TAB. Through TAB, they had the ability to "reach out" to the Agency's 211d contractors in specific technical areas.

In preparing the pilot response packages, the information specialists accessed information from each of the four files that were partially created. However, as subsequent examinations of the quality of these files have indicated, the original information packages may have suffered from the presence of inconsistencies and information gaps in files.

(a) The Quality of the Project File

As the foregoing has suggested, only one of the information "files" that the information specialists were expected to access was managed by the

Office of Development Information. That file is the Project File. In this section PCI focuses on the quality of the Project File, since it is the file DS/DIU/DI is well positioned to improve.

Although they were not fully apparent to DS/DIU/DI and PCI at the time of the pilot tests, two types of gaps in the Project File have subsequently been identified. Both of these gaps were partially apparent and the subject of discussions during the initial phase of DS/DIU/DI's development. The two gaps that are now evident can be best described as the "project and document gap" and the "key work and code retrieval gap". The first of these gaps, which refers to mission projects and mission documents, was reported on in a 1979 study by the Comptroller General of the U.S.:

> "We queried the DIU data bank on 25 individual study, research and evaluation activities--completed and ongoing--to determine what information was in this system for use by other AID organizations. We found that DIU had some information--reports and project papers--on 11 activities but it had no data on the remaining 14 study, research and evaluation activities. DIU personnel advised us that some information, such as interim and final reports, was available on 11 of the 14 activities at various regional and central bureau offices and in one Mission. For three of the 25 activities, DIU personnel could find no information."*

The second gap, a "key word and code retrieval gap", refers to discrepancies in the number of projects retrieved in different searches that are designed to produce the same set of projects. This gap was identified in 1979, when PCI, under a separate contract, and Robert R. Nathan Associates (under a contract with PPC/E/DPRE) both attempted to use the DS/DIU/DI resources to establish the number (and titles) of each of the Agency's electrification projects. A significant difference in the number of projects was found to exist and PCI undertook an audit of both searches to learn why the numbers differed. A copy of PCI's memorandum on that "audit" was forwarded to DS/DIU/DI. It is reproduced here as Annex A to this section.

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* Agency for International Development Needs to Strengthen its Management of Study, Research and Evaluation Activities, Comptroller General of the U.S., Washington, DC, February 12, 1979, pp. 15-16.

Without "auditing" the original pilot test packages prepared during the initial operations phase of DS/DIU/DI's work, there is no way of telling how the two "gaps" identified here affected those early products. In the long run it is not important to know whether the initial products were affected. What is important is the fact that "gaps" in the quality of the Project File have been identified and DS/DIU/DI can begin to work toward their elimination.

The difficult task of eliminating the "project and document gap" has already been addressed by DS/DIU/DI on multiple occasions. When the Office first began work it contacted each regional bureau for project documents as well as searching out those project materials that had made their way into the AID Reference Center. When this type of search failed to produce all of the basic project documents that "ought to" exist in AID/W, DS/DIU/DI worked with the bureaus to try to retrieve project documents that were not in Washington but might exist in the Missions or at contractors and university facilities. Despite these efforts, there remains a set of project documents that have not, and may never, be located. In the future, DS/DIU/DI should continue to work with bureaus and the contracting offices of the Agency to locate documents and toward regulations that will ensure that all important project documentation is automatically sent to the Office of Development Information.

In contrast to the "project and document gap", the "key word and code retrieval gap" is fully within DS/DIU/DI's manageable interest. To eliminate this gap, DS/DIU/DI will need to undertake such searches of its data bases as are required to determine the extent of the retrieval problems and follow up on the findings by modifying key wording and PBAR coding on all projects which it finds are difficult to retrieve using the system's basic key words and codes in a straight-forward and fairly simple minded way, (i.e., in the way a naive user would approach the task).

(b) The Quality of Files Developed & Managed by Offices other than DS/DIU/DI

In summary, the development of the four files that are not managed by DS/DIU/DI appeared, and still appears to be hindered by the following:

- The Lack of Information Needed to Create the Files

  In the case of the Special Studies and Evaluation File, there were at least three difficulties: (a) not all of the studies and evaluations that belonged in this file could be located, even with extensive research, (b) the evaluation studies that were located for this file did not contain the information on project effectiveness and impact that AID's project designers and managers wanted and needed and (c) AID had not "evaluated" the quality of the information provided in the studies and evaluation file. The last difficulty left DS/DIU/DI in the position of having to either make judgments about quality or treat all studies and evaluations as if they were equally sound.

  Perhaps the earliest warning DS/DIU/DI received concerning the deficiencies in the Special Studies and Evaluation File came during the initial operations period when Mr. Samuel Butterfield, AID Mission Director for Nepal, requested an information package, with the stipulation that no project summaries were to be forwared that did not contain project evaluation comments. By applying this rule, DS/DIU/DI information specialists found that the number of summaries that could be sent was significantly less than the number of projects that could be located. Later, reviews of the volume and quality of AID evaluations, including 1978 and 1979 reviews by PPC/E, Robert R. Nathan Associates, PCI, committees of the U.S. Congress in cooperation with PPC/E, etc., found that, as a general rule, AID evaluations did not assess project impact at the Purpose and Goal levels.

  The Country and Program Data File was expected to have both an automated and hard copy element. The automated portion of this file was never expected to hold a substantial amount of information. The information needed for the automated portion of this file was available. The hard copy portion of the file was expected to hold a substantial amount of information developed by AID, other donors and the developing nations on general conditions and past progress in efforts made by all interested parties. To the best of PCI's knowledge, the material for this file was never fully identified, secured and organized.

- Too Much Information Coupled with a Lack of Organization

  The difficulties that hindered the development of the Technical Data File and the Context File appear to PCI to fall into this second category.

AID has in its possession a significant amount of information that is best classified as "technical." Beyond AID itself, there is even more "technical" information that pertains to the issues faced by AID's project designers and managers. A good deal of that information rests in the organizations AID has hired over the years to address specific technical issues through 211d arrangements, RSSAs, PASAs, contracts and research arrangements. Still more could be located if the considerable resources of the U.S. federal agencies, the Library of Congress and other donor organizations were searched. The problem here appears to be not a lack of information, but rather, the lack of a process that systematically organizes and digests information to produce coherent statements and conclusions that can be put to use in development projects.

When DS/DIU/DI first began operations, its information specialists searched for the type of documents that might pull together large and dispersed sets of technical information; few were found. The occasional "state-of-the-art" paper located by an information specialist tended to draw together and summarize information about topics, but all too frequently these papers failed to outline in a simple and understandable way the steps that project designers and managers could take, with confidence, to improve their projects. In the absence of adequate summaries of the literature in a wide variety of technical areas, the DS/DIU/DI information specialist's "synopsis" in a semi-automatic package was sometimes the only thread that tied together the technical materials in a response package.

AID has not developed a "file" in line with the orignial conception of a Context File, though it created the Economic and Social Data Bank, which contained data from a number of surveys carried out in the LDCs. There is a great deal of economic, social, cultural and other data that could have been identified and organized to create a fuller Context File. Such data might have come from the census materials for those countries which have developed statistical services, from the work of anthropologists and other social scientists who have carried out research overseas, from sources that maintain international data on physical and climatic conditions worldwide, etc. The difficulties surrounding the development of such a file seem to have involved questions of exactly what information to include and where responsibility for the development of such a file should be placed.

(B) The Cost & Benefits of Alternative Response Packages

In the initial phase of DS/DIU/DI operations, when the pilot response packages were being developed, two assessments were attempted: An assessment of "benefits" and an assessment of "preparation time". The "benefits" of DS/DIU/DI's information packages are discussed under Output 2 below.

"Preparation time", while not a full substitute for a cost measure, was considered by DS/DIU/DI and PCI to be the critical dimension in which trade-offs could be made. The time assessments, which were fully described in Section Two of this report (under the headings "field tests" and "speed tests") indicated that (a) users wanted information quickly and (b) the information they wanted early in the project design process was information on DS/DIU/DI's holdings. Once DS/DIU/DI became aware of the requirements of its clients, interest in "automatic" cost/benefit assessments diminished. The Office of Development Information responded to Mission needs directly: It revised its plans for semi-automatic packages and created in their place the "quick response". The "quick response", which met the initial needs of users, cost less in terms of time than the original version of a semi-automatic response. "Quick responses" could be (and were) followed-up at the request of a user, with more complete information packages. Since these follow-up responses, like "direct queries", were tailored to individual needs, the question of standard or "average" costs became moot, except at the level of an overall office budget.

Initial Operations Output 2: Standard (Semi-Automatic Response) Packages Prove Valuable to USAIDs

As this Output description suggests, it was DS/DIU/DI and PCI's expectation that the semi-automatic response would be a standard response prepared as each new Agency PID was approved. The indicators of performance suggested for this Output called for evidence of (a) perceived value and (b) actual use.

During the initial year of DS/DIU/DI's operations, a number of semi-automatic responses were prepared. The first semi-automatic responses followed the instructions developed at the time of the pilot test; i.e., they included both a Similar Project Description Report and a Bibliographic Reference Report. With an average workload of four responses, an information specialist needed four to six weeks to produce an information package. As discussed elsewhere in this report, DS/DIU/DI and PCI found the time required to prepare semi-automatic packages in this form to be excessive. The response in the Office of Development Information was to scale down the initial package provided for approved PIDs; i.e., to prepare "quick responses". The shift to "quick responses" allowed the information specialists to prepare three to four quick responses every two weeks.

In addition to the shift toward a "quick response" form of the semi-automatic package, DS/DIU/DI, in the second year of operations shifted its emphasis from semi-automatic to direct responses. As Table III-1 indicates, the Office of Development Information produced a total of 158 responses in 1977. Two were automatic, 74 were semi-automatic, and 82 were direct. Between January 1, 1978 and June 30 1978, the total 1977 output was surpassed (176 responses). Five automatic responses were prepared as were nine semi-automatic and 162 direct responses. In other words, what was an even balance between semi-automatic and direct responses in 1977 became a concentration on direct responses in 1978. This change appeared to occur because the semi-automatic packages of 1977 also served as marketing tools for DS/DIU/DI. When project designers and managers in the field and in AID/W became aware of the DS/DIU/DI services, they began to make their own requests. One hypothesis that is worth testing is that many of these direct requests were for the initial design, or pre-PID, stage pf projects. If this hypothesis is true, it means that direct responses provide information at an earlier stage in the project development cycle then do semi-automatic responses, since the latter is provided only to projects which have approved PIDs.

TABLE III-1:
DS/DIU/DI RESPONSE PORTFOLIO: JANUARY 1, 1977 TO JUNE 30, 1978

Period	Type of Response			TOTALS
	Automatic	Semi-Automatic	Direct	
1977	2	74	82	158
1/1/78 to 6/30/78	5	9	162	176

Given the dramatic shift in the composition of the portfolio of DS/DIU/DI responses, an assessment of performance against the original indicators for this Output is difficult, at best. Nevertheless, some information concerning the perceived value and actual utilization of information packages is available, and can in some ways be considered to include an assessment of the semi-automatic response mode. (It should be noted that when the indicators were developed, the Logical Framework also included activities that were designed to ensure utilization of the information packages prepared by DS/DIU/DI. With the deletion of an enforcement element to the Office's mandate, DS/DIU/DI's responsibility addressing the question of information use was also diminished. Nevertheless, DS/DIU/DI has remained concerned with the question of product utilization and attempted to secure feedback on this issue.)

Evidence of the perceived utility of the semi-automatic and "quick responses" was solicited from the Missions in several ways: By cable, in the FY80 ABS instructions, in field tests, during discussions with Mission personnel who visited Washington, etc. However, no systematic survey of users was conducted during the period of the PCI contract that would have provided an adequate basis for evaluating the utility of DS/DIU/DI's information packages.

Further, PCI is not aware of any such survey subsequent to the termination of our work for the Office of Development Information.

The testimonial evidence and feedback gathered in the field tests of pilot packages, while generally positive, is not necessarily representative. Individual commentators have made suggestions for improving information packages. Cited below are comments made by three USAIDs in response to the FY80 ABS query about the services of the office:

- From USAID/Panama:

  The Mission's experience with DIS could be characterized as very limited, but useful. In response to a PID, which was submitted with the FY 1979 ABS, DIS provided us with a list of reference materials which it was believed might be of use to us in connection with the design of the Watershed Management Project (No. 525-0191). We requested several of the items on the list and they were provided quickly and proved to be very useful to the members of the project design team. We would suggest that this automatic response to PIDs be expanded to cover all types of new projects as soon as is possible.

- From USAID/Peru:

  The Mission experience with the services provided by the DIS have so far been limited. On the few occasions the Mission has requested information, the data supplied generally was considered inadequate. It would be helpful if more pertinent information could be provided by the DIS, including evaluation summaries of related projects and information from IBRD and IDB project experience.

- From USAID/Liberia:

  The Mission has called on the services of the Office of Development Information to provide materials on several occasions. The documents provided have proved to be of value not only in the evaluation stages of projects, but more particularly in the extensive design efforts which the Mission has undertaken during the past fiscal year. The computer printouts of the objectively verifiable indicators provided assistance at the basic Logical Framework level of design.

In August of 1977, the Office of Development Information collected and printed additional user feedback comments it had received. Those comments are provided in Table III-2.

TABLE III-2:

EXCERPTS FROM USER FEEDBACK

USAID/Pakistan (designing project in storage technology)	Information arrived 18 weeks before it was actually required. The material will save us as much as 2-4 person-months of time. There is great potential in this service for greatly improving field staff's information at critical points in the project planning process. This... service is one of the most useful services recently introduced by AID/W in support of field staff.
REDSO/WA (designing new project in agricultural development)	The information which you sent is fully adequate for our needs in designing a new project for the area. I find the PAR particularly helpful in identifying possible constraints which must be considered in design.
USAID/Philippines (designing project in rural credit)	Materials provided were useful information for pre-design planning purposes.
J. R. DeSousa, NE/CE (pre-PID request for information in poultry development for Syria Mission)	Information in the area of agricultural credit and poultry development was instrumental in furthering project analysis and development.
Jim Bingen, AFR/SFWA (used material for Sahel Development Program Inventory)	...saved me countless hours which otherwise would have been spent in frustrating and often fruitless searches through dusty bookshelves in obscure offices.
F. Morrow, ASIA/PD (used material for rural credit project in Indonesia)	If your office had not been able to provide this service, our office would have had to spend considerable time locating relevant papers in all the geographic bureaus and having "out-of-print" documents reproduced.
Kenneth Jameson, PM/DSP (analyzing economic analysis papers for Development Studies Program)	I feel that we have been able to lower the cost of these studies, while at the same time improve their caliber, by having access to the file of Project Papers which you have compiled.
Keith M. Byergo, TA/AGR (reviewed package on grain storage facilities for Pakistan)	Packages have answered the needs and questions raised by the mission and saved project planners many hours of time. DI provides the missions with much wider resources from which to gain information.
J. K. McDermott, TA/AGR (used material for PID review of cropping systems project)	You have been able to provide a much richer response than we have ever been able to and with much less time and effort than we would have to put into it.
Robert Pratt, TA/N (designing Nutrition Field Evaluation Research Project)	The material obtained within a few hours after our request... has cut our searching and writing time for this project by about 8-10 weeks.

In addition to accepting testimonial reports on the value of its products, DS/DIU/DI also attempted to secure other types of evidence of utility of its information packages. During the summer of 1977, PCI staff members and one of the Office's summer interns examined project documents that had been developed after Missions had received an information package from DS/DIU/DI. In the few project documents PCI was able to locate, there was virtually no way of telling whether or how the information provided by DS/DIU/DI had been incorporated into the project design process. There were no dramatic cases of altered project designs, but then, there had been no packages that had suggested dramatic reversals. As a result of this exercise, PCI and DS/DIU/DI concluded that, except in those "rare" instances when a dramatic reversal on design issues occurrs, the process of reviewing project documents is unlikely to produce unequivocal evidence of the use of DS/DIU/DI's products.

Once this conclusion was reached, PCI recommended that, rather than trying to trace use through document reviews, DS/DIU/DI should periodically query its clients concerning information use. In making this recommendation, and developing a draft "follow-up" questionnaire, PCI recognized the potential for biased reporting. The choice at the time appeared to be between potentially biased information and no information at all, since follow-up studies were not possible within the constraints of the Office budget. To the best of PCI's knowledge, DS/DIU/DI still has no statistically representative data on the uses made of its information packages. The indirect evidence DS/DIU/DI does have concerning the utility of its products is its "repeat business". While such evidence is indirect, it strongly suggests that field personnel and other clients are finding ways to utilize the information they receive.

Initial Operations Output 3: Procedures and Organization Established to Ensure Effectiveness of Automatic, Semi-Automatic and Special Responses

This Output covers both the general statement, shown in the subsection title above, and three specific suboutputs:

3.1 Organization and staffing defined based on alternative work loads.

3.2 Space and equipment projections and budgets.

3.3 Procedures for liaison with other information sources, libraries and other AID systems.

No indicators were identified in the early Logical Frameworks for the overall Output, however, individual indicators of each suboutput were specified. In the following paragraphs the overall Output and each of the suboutputs are separately reviewed.

(a) Procedures and Organization Established

As of 6/78 procedures existed, in revised form, for the preparation of each type of response mode envisioned for DS/DIU/DI. In addition, procedures for preparing "quick response" versions of the semi-automatic and direct response packages had been prepared and were in use. (Section Two of this Volume and Volume Three of this report address these procedures.)

The method of monitoring staff performance developed for use in DS/DIU/DI consisted of supervisor schedule logs and supervisory reviews for each information package, as well as "peer reviews" of the search strategy for each package. The assignment logs and "peer reviews" were two of the standard subjects in weekly staff meetings of the information specialist cluster. The procedural manuals and guidelines and, the "peer" and supervisor review process assisted DS/DIU/DI in carring out its tasks in an effective and efficient manner.

(b) Organization and Staffing Defined Based on Alternative Work Loads

The indicator identified for this suboutput was: "organizational and personnel requirements make sense in terms of availability of personnel as well as system requirements". Retrospectively, this indicator is a weak

statement. In effect, it suggests that DS/DIU/DI should do its best with whatever resources are available given the information processing load it faces. A more realistic indicator, given the actual development of DS/DIU/DI would have indicated a rational ratio of staff to information packages. The absence of such a guideline has hindered the Office's ability to secure sufficient staff to handle the full range of DS/DIU/DI's work.

Since early 1978 the Office of Development Information has been understaffed in its information specialist section. Up to the end of 1977 the cluster of information specialists were engaged in a work program that included:

- Preparation of response packages for all approved PIDs.
- Preparation of responses to all direct inquiries.
- Preparation of automatic packages as warranted.

By early 1978 the Missions knew of the existence of DS/DIU/DI and the flow of requests to the Office increased substantially (as shown in Table III-1). At that point, the Office had to begin cutting back on its services because of a lack of information specialists. The choice DS/DIU/DI made was to reduce service in the semi-automatic mode and to continue to respond to all direct requests. The choice was a pragmatic one: field staff who had sent in a request expected a response; the authors of approved PIDs did not necessarily expect to receive an information package. However, this choice may have changed the composition of the DS/DIU/DI user population in ways that are not desirable. That is:

- The semi-automatic mode, when it is used, randomly reaches AID personnel. Packages distributed in this mode will, with equal probability, reach individuals who will write/call DS/DIU/DI and ask for information and those who will not.
- The direct response mode reaches a self-selected set of users: Those who ask for assistance. Operations in this mode do not reach AID staff who, for one reason or another, do not ask for

assistance. Within the subset of people who do not ask for assistance, there may be a sizeable number who could derive significant benefit from DS/DIU/DI information packages. This subpopulation may go unserved when DS/DIU/DI focuses almost exclusively on the preparation of direct responses.

A rational review of the workload DS/DIU/DI faces at full capacity (i.e, including automatic, semi-automatic, and direct responses) and a detailed review of the number of information specialists required to handle this work load appears to be warranted. The result of such a review is likely to suggest that AID increase the number of DS/DIU/DI information specialists. Reductions of the work load to match the current staff level may simply defeat the purpose of the Office and undermine its potential for bringing about important improvements in project design and implementation.

(c) Space and Equipment Projections and Budgets

During the initial months of DS/DIU/DI operations, the question of space was a critical one and a good deal of top management attention was devoted to the issue of a physical location for the Office of Development Information. Once this problem was resolved, question of space and equipment took on a more routine character. The requirements associated with this suboutput were not a primary concern of the PCI team during its contract period, hence, DS/DIU/DI itself, rather than PCI, is probably in the best position to judge effectiveness if this area.

(d) Procedures for Liaison with Other Information Sources, Libraries and Other AID Systems

Throughout the PCI contract period, the Office of Development Information was involved in an evolutionary process of developing contacts and arrangements for acquiring and using information stored within the Agency and by other facilities. During the early phases of the contract, PCI participated in the development of contacts at such organizations as the National Agricultural Library. In later months, PCI worked with DS/DIU/DI's direct hire staff as they sought to secure evaluations carried out by the Agency and the IBRD

files kept in AID/W. This process, begun during the initial operations phase is one that has no natural termination point. Rather, DS/DIU/DI information specialists are carrying on a self-improving program of "outreach" that will continually identify new sources of information and make them accessible.

The concept of liaison, for DS/DIU/DI, has come to mean more than simple outreach. In the second year of operations, the Deputy Director of the Office was approached by another major development organization concerning its project materials. At that time DS/DIU/DI was offered the project files of the other organization which hoped that DS/DIU/DI would accept the responsibility for abstracting, coding, storing and making this material accessible to those who need it. DS/DIU/DI accepted this and other similar challenges; it has incorporated several external information sets into its files, including:

- All data bases managed by the DIALOG and ORBIT systems. These data bases provide references and abstracts of writings in a variety of technical fields.
- World Bank audit reports: These reports are now abstracted and entered onto the DIS.
- Project Profiles: Hard copy abstracts of development projects which employ some type of mass media. Project Profile is produced and updated by the Academy for Educational Development.

To the degree that DS/DIU/DI continues to accept offers of information and project data bases, it can begin to approach, from a materials standpoint, the original conception of the Office as the central repository for the universe of information that defines the "development science".

It requires resources to accept and make workable the project files of any organization. Storing AID's project "memory" has itself been a major job. Additional problems are inevitable when the project memory of another organization is acquired. However, DS/DIU/DI does have the skills and understanding to take on such tasks. It can move further in the direction of becoming a central repository of development project experience if it

has adequate resources and provides the care and attention required to properly abstract, code and store each new set of information it receives.

Initial Operations Output 4: DIS Utilization Demonstrated to Field and AID/W Planners and Managers

In many important respects this Output is redundant with the intent of the second Output, and with its indicators. Thus, for the most part, PCI's report on Output 2 covers the progress made by DS/DIU/DI in demonstrating the utility of its services. One additional set of facts worth noting under this general heading is the response to DS/DIU/DI by other AID/W offices that have used its automated data base. Since the time of the pilot tests, when personnel in AID/W reviewed and commented on the first semi-automatic and automatic packages, the feedback on DS/DIU/DI has been generally positive. In each step of the development of the various response modes, AID/W contributed helpful criticism and suggestions. Throughout the operational years of th Office, AID/W offices have been active users of the DS/DIU/DI services. In addition, AID contractors, PVOs and cooperating universities have become aware of DS/DIU/DI and sought its assistance.

AID/W has not only been consistent user of DS/DIU/DI, it has undertaken some novel searches that have led to the development of new types of information packages. One illustrative case was an effort by PPC/E/S to analyze "patterns" in specific classes of projects using data from the DIS and PAISHIST as the "raw data" for the analysis. Another complex use of the DS/DIU/DI system was made by PPC/E/DPRE when is secured the assistance of Robert R. Nathan Associates in identifying the full set of electrification project evaluation records to examine their quality.

Initial Operations Output 5: Procedures for Continuing Evaluation and Improvement of DIS

DS/DIU/DI has received support from the Agency in the establishment of a feedback process. DS/DIU/DI has not, however, undertaken a systematic

evaluation that would allow it to make valid generalizations about the effectiveness of the Office as a whole and about each type of response package it provides. The data base provided by the ABS comments, letters and the pilot tests is insufficient as a foundation for a formal evaluation of the type anticipated by this Output.

The creation of an adequate evaluative mechanism is a task that remains before DS/DIU/DI. Informal feedback, of the type DS/DIU-DI has secured to date, is helpful to the information specialists and useful from the standpoint of budget justification. However, DS/DIU/DI should be aware that a more through evaluative effort, which examines user perceptions by mode of response, etc., is a management tool that could be used in replanning the DS/DIU/DI work load, refining its approaches to specific types of responses, staff training, work force projections and in developing new product lines.

B. THE LINKAGE FROM OUTPUTS TO PURPOSE

In any project or program, the production of Outputs is considered to be a necessary precondition for Purpose level achievement. However, the Outputs are not always the only conditions that must be in place if a program or project is to succeed. In most situations there are some factors, or Assumptions, which are outside the span of the project's control, but which must operate as predicted if Purpose is to be achieved. In this section, PCI examines the critical assumptions which were expected to contribute to DS/DIU/DO's Purpose level success. The section also examines evidence concerning the degree to which the Office of Development Information has achieved its Purpose.

1. DS/DIU/DI's Output Level Assumptions

DS/DIU/DI's ability to become a viable and cost-effective unit that provides pertinent information to project designers and managers depends

upon several Assumptions, in addition to the Outputs that DS/DIU/DI can itself produce. Among these Assumptions are the following:

- The information that is needed by project designers and managers exists; it simply needs to be located, organized and forwarded to them.
- Offices other than DS/DIU/DI would establish useful, high quality data "files" in four topical areas: country and program information, technical information, context information and special studies/evaluation information.
- The Agency would make available the resources necessary to operate DS/DIU/DI on a continuing basis.

In the following paragraphs, PCI examines the degree to which these assumptions provied to be valid.

a. The Existence of Pertinent Information

As PCI's report suggests, the assumption that adequate information exists in raw form appears to be valid for a number of information categories. The notable exception is evaluation where the body of knowledge about effectiveness and impact is inadequate.

b. The Creation of Information "files" by Other AID Offices

As indicated on pages III-8 to III-13 of this report, AID did not fully develop all of the information "files" discussed in the original report on Establishing a Development Information Service. The absence of complete working "files" covering country and program data, technical information, context data and special studies and evaluations have affected the quality and utility of DS/DIU/DI's information packages. The absence of evaluation data for Agency projects has proven particularly problematic. While DS/DIU/DI has normally been able to find technical information and some country program and context data for its packages, it is clear that, if the "files" in these areas had received more attention from other offices, DS/DIU/DI information specialists could prepare appropriate packages both more quickly and

with greater confidence that the information they are providing is the most appropriate information on these topics. Given the uneven development of these files, DS/DIU/DI information specialists face an almost daily trade-off: Delay sending packages until information that is pertinent can be found and organized or meet dealines by limiting the scope of responses.

c. The Continuing Availability of Resources

AID has continued to provide support for the operation of the Office of Development Information. However, those funds, and human resources, have not proven adequate to meet all of the demands for information from DS/DIU/DI. The Office has been forced to make choices about which demands have priority. At present its answer is "direct inquiries". DS/DIU/DI has, in effect, abandoned its original plans to provide semi-automatic responses for all approved PIDs and automatic responses whenever new topics and development assistance approaches emerge. The choices DS/DIU/DI has made may mean that only a portion of the Agency benefits from its existence.

C. ACHIEVEMENTS AT THE PURPOSE LEVEL

The success of DS/DIU/DI in becoming a viable and cost-effective unit that provides pertinent information to project designers and managers on a timely basis has been examined in a number of documents prepared by the Office of Development Information.

In August 1977, DS/DIU/DI examined its performance in terms of its efficiency and its effectiveness. The measure of efficiency it examined was "savings". These "savings" were stratified by user groups and quantified, as shown in Table III-3.

TABLE III-3:

COST SAVINGS AS OF 8/77

Preparation of PIDS	
Average savings 10 person-days -- Direct Hire	$1,500
20 person-days -- Contract	4,000
Total for 1 PID	$5,500
Times service to 40% of all PIDs at a pre-PID stage (250 x 40%)	x100
Savings in PID preparation	$550,000
Preparation of PP's	
Average savings 3 person-months for 1 PP -- Contract	$ 12,000
Times service to 40% of all PPs (150 x 40%)	x 60
	$720,000
Additional PP preparation costs average $50,000 -- estimated savings @ 10%	$ 5,000
Times 40% of 150 PPs per year	x 60
	$300,000
Total savings in project design per year	$1,570,000

The analysis that accompanied this table, and Table III-4 which identifies the DS/DIU/DI costs, stated that:

> "Since DIS has been active in providing response packages for field project design teams for less than six months, the objective data available for use in a savings analysis are limited. However. if we use a conservative estimate of 40% of DIS service at the pre-PID stage of project design and 40% of services at the PP stage, the extrapolation of available objective data produces a direct savings of $1.57 million. The total cost of the DIS is $600,000. This suggests that, in terms of savings for the regional bureaus and USAIDs, the DIS more than "pays its way". If the current employment vacancies were not filled, the costs of DIS services would be reduced to $475,000 and the savings ratio would rise accordingly.
>
> The level of savings described above is realized even when other DIS users such as AID/W project review committees and policy guideline writers--all of whom benefit from DIS services--are not considered."

The measure of effectiveness examined in this 1977 summary was user feedback. The testimonial evidence concerning DS/DIU/DI in this area was presented on pages III-17 to III-18 of this report. This data was not adequate to draw general conclusions about the utility of information packages throughout the Agency and DS/DIU/DI's 1977 summary acknowledged that fact.

In 1978, DS/DIU/DI updated its statistics and presented to AID a review of its services to clients. These 1978 statistics demonstrated clearly that the volume of business done by DS/DIU/DI had grown substantially in a one year period. Table III-5 below is taken from that 1978 DS/DIU/DI report.

During the same period, a discussion paper was prepared in AID that examined the shortcomings of the information packages prepared in DS/DIU/DI. That discussion paper, which is provided as Annex III-B to this section, identified many of the shortcomings discussed in this final report. The main questions raised by the discussion paper dealt with the completeness of information packages and the completeness of the various files from which information for the packages was to be drawn. The discussion paper also offered suggestions concerning improvements that could be made by AID which would, in turn, improve the quality of the DS/DIU/DI information packages.

TABLE III-4:

COSTS INCURRED (as of 8/77)

Direct Costs	Program Expenses		Operating Expenses		Combined Program and Operating Expenses
	DIS	ARC	DIS	ARC	
Salaries					
On-Board					
Full-time			$128,045	$120,517	
Part-time			0	20,592	
			$128,045	$141,109	
Benefits @ 9%			11,524	12,700	
Total on-board			$139,569	$153,809	
Vacancies					
Full-time			$ 74,063	$ 18,763	
Part-time			40,315	15,504	
			$114,378	$ 34,267	
Benefits @ 9%			10,294	3,084	
Total vacancies			$124,672	$ 37,351	
Total salaries			$264,241	$191,160	
Contracts	$300,000	$125,000			
Indirect Costs:					
Overhead -- Rent utilities, etc., 5,600 ft. @ $6.00			$ 24,000	$ 9,600	
Travel			12,000		
Total DIS Costs	$300,000		$300,241		$600,241
Total ARC Costs		$125,000		$200,760	$325,760
Total PPC/DI costs					$926,001

TABLE III-5:

DEVELOPMENT INFORMATION CENTER STATISTICS, JANUARY-OCTOBER, 1978

CLIENTS SERVED	DIC Locations 105 RPC	1656 NS	215 RPE	570 PP	TOTAL	USDA 3918 South Bldg.
AID/W offices	1158	1632	672	124	3586	245
Freedom of Information Requests	-	17	-	-	17	-
Congressional Inquiries	-	10	-	1	11	2
USAID Missions	94	57	142	149	442	209
AID Contractors/Grantees	92	276	22	19	409	101
International Organizations	95	75	-	1	171	-
LDCs: Individuals and Institutions	310	73	33	-	416	44
DCs: Individuals and Institutions	482	594	175	13	1264	41
U.S. Government	141	172	13	5	331	111
TOTAL	2372	2906	1057	312	6647	753
NATURE OF RESPONSES						
Reference Work:						
Direct ref. services (over-the-counter, phone, correspondence)	1884	2924	800	116	5724	558
Research assistance with ARDA and R&D Catalogue	93	-	-	-	93	3
Items used (books, docs., journals, etc.)	1297	6195	192	236	7920	3752
Information and analysis packages	14	-	-	157	171	56
Literature searches:						
Manual	7	131	-	60	198	164
DIS	R&D 91	Proj. 209	-	Proj. 647	947	-
External databases	44	171	-	111	326	127
Interlibrary loans:						
Books	146	113	46	-	305	-
Journal articles	304	12	-	-	316	10
Documents	-	10	-	-	-	-
Articles from OATS	490	5	-	-	495	-
Documents from NTIS	22	1	-	-	23	-

Review of these three documents provides some evidence of the type that would be needed for an evaluation of DS/DIU/DI's performance at the Purpose level. However, none of these documents (nor any subsequent summaries of which PCI is aware) adequately examines the question of whether DS/DIU/DI's clients are receiving (a) the right kind of information, (b) adequate information, or (c), information that is actionable, i.e., can be used as a direct input in the project design and management process. Without follow-up studies by DS/DIU/DI on its packages, the only strong evidence of effectiveness is evidence about "demand", particularly that segment of "demand" that can be attributed to multiple time users of the services of the Office. Yet even this proxy information is far short of what is needed to accurately judge the quality, adequacy and usability of information DS/DIU/DI provides to its clients. DS/DIU/DI's lack of solid, statistically representative data on the merits of its information packages suggests that additional attention to evaluation would benefit the Office in two ways: It would help demonstrate the value of DS/DIU/DI and it would provide actionable feedback to the Office's information specialists.

MEMORANDUM

February 1, 1979

TO : The Files

FROM : Molly Hageboeck and Brian Goodhart, PCI

SUBJECT: The Number of Rural Electrification Projects Funded by AID

There are presently a number of analytic efforts underway in AID that focus on rural electrification. At least three of these activities have developed listings of AID's rural electrification projects. The lists do not agree on the total number of AID rural electrification projects. The discrepancies among the lists appears to be causing some confusion both at AID and within PCI's teams.

The purpose of this memo is to examine the differences in the lists and to attempt to arrive at a total number of electrification projects that all three activites can use.

The three lists we reviewed were developed for different purposes and the instructions for developing the lists were slightly different in each case:

- The PCI list developed for the DS/RAD "Data Gathering and Analysis" effort was generated using the following specifications: (1) include all rural electrification projects; exclude projects that are either directed primarily at urban populations or generate but do not deliver power, and (2) include only those projects that appear in AID's PBAR or TEXT data bases.

- The PCI list developed for the PPC/E "Sector Mapping" effort was generated using the instruction: include only those projects that appear in AID's PBAR or TEXT data bases.

- The RRNA list developed for the PPC/E "Electrification Evaluation" effort apparently followed the instruction: include all rural electrification projects undertaken by AID.

Following their separate sets of instuctions, the study teams developed their separate lists. Careful examination of the three lists reveals that:

1. Twenty-three (23) projects were located by all three study teams.

2. By non-redundantly adding together the projects from each of the lists a grand total of fifty-eight (58) projects emerges.

The column below shows how the grand total of 58 emerges from a simultaneous review of all three lists.

23 projects	- found by all three study groups
+ 11 projects	- found by RRNA in PAIS (old projects)
34	
+ 3 projects	- found by RRNA in a "status of loan agreement" list
37	
+ 4 projects	- found by the PCI "sector mapping" group through a search of secondary technical codes on PBAR
41	
+ 5 projects	- found by RRNA and Sector Mapping but not by RD because they came on the data bases after the RD search was made.
46	
+ 4 projects	- found manually in the regional bureaus by the RD work group or RRNA
50	
+ 8 projects	- that should have been found by all groups but were not due to what appear to be 'bugs' in the data base routines, i.e., given the same command at two different points in time the system is producing non-equivalent lists that cannot be justified by simply counting recent entries.
58	

Table 1 presents this data in a slightly different manner. This table starts with the total number of projects found by each of the study groups and then shows how, by subtracting entries, the number of commonly identified projects is identified. Table 2 to this memorandum presents a complete listing of the project numbers with annotation concerning the way in which the project was found by one or more of the study groups.

PCI review of these three lists has suggested a number of action steps that various parties may want to take, including:

1. PCI and DS/RAD may want to review the following projects as potential entries in their list for the "Data Gathering and Analysis" effort:

   Project Numbers: 4980236, 4970283, 4980260, 4970295, 4930175, 4930217, 7300375, 5120105, 5120228, 5130181, 5140098, 5150092, 5180071, 5180099, 5200214, 5320046, 5240044, 5280008, 2760025, 5110364, 9250203, 9320087 and 9320117.

2. PPC/E and PCI should review the following projects for possible inclusion in the "sector mapping" for rural electrification:

   Project Numbers: 3860342, 4920031, 4920189, 4920316, 5110046, 5110364, 5110488, 5150092, 5200248, 2630074, 2760018, 2780209

3. PPC/E and RRNA may want to review the following set of projects for possible inclusion in their examination of electrification evaluations:

   Project Numbers: 4980133, 4980236, 4980260, 4970295, 4920315, 5110046, 5110491, 9250203, 9320087, 9320117

4. AID's Data Base Offices (DS/DIU and PPC/PAIS) may want to review the following projects:

   a) For possible inclusion in DIS: 4980236, 4980260, 4920031, 4920306, 4920316, 3060041, 5110046, 5110049, 5110205, 5110488

   b) As to project status in DIS: 5150092, 2780209

      As to project status in PBAR: 5110488, 5200248, 2780209, 2760018

   c) For key words in DIS: 4980133, 3860342, 4920189, 5110364.

TABLE 1

AUDIT OF THE DISCREPANCIES AMONG LISTINGS OF AID'S RURAL ELECTRIFICATION PROJECT PORTFOL

SOURCES OF DIFFERENCES	DS/RAD and PCI Rural Development	PPC/E and PCI Sector Mapping (Draft)	PPC/E and Nathan Rural Electrification
TOTAL number of rural electrification projects identified by each of three studies:	33	33	47*
MINUS: 1. Nathan retrieved 10 projects using PAIS, a data base of older projects not used by the other studies; RD and Sector Mapping studies both limited their search to the universe of projects that were active on or after October 1974 (the PBAR data base entry cut-off date).			11
SUBTOTAL	33	33	36
MINUS: 2. Nathan retrieved 4 projects from SLA (Status of Loan Agreement), a source not used by the other two studies. However, one was also recovered by SM and RD through PBAR.			3
SUBTOTAL	33	33	33
MINUS: 3. Projects retrieved by manual search in the Regional Bureaus for the Rural Development and Nathan work.	6		1
SUBTOTAL	27	33	32
MINUS: 4. Projects retrieved by the Sector Mapping project using the secondary technical code for Rural Electrification in PBAR; RD and Nathan only searched the primary technical code for Rural Electrification.		4	
SUBTOTAL	27	29	32
MINUS: 5. Projects listed by one or more, but not all studies, because projects were not on PBAR or DIS at the time data base searches were made.		5	2
SUBTOTAL	27	24	30
MINUS: 6. Projects listed by one or more, but not all studies because of unknow factors in the data bases, i.e., project fails to show in one of two searches using same procedure.	4	1	7
SUBTOTAL of projects identified by all 3 studies:	23**	23***	23****

*/ While the RRNA text uses the total 45, it's tables actually record 46 rural electrification projects. The final project that overlaps with PCI's lists was listed by RRNA as a power project.

**/ The RD effort excludes 5 of these 23 because they did not meet the definition set by the project. In addition, 2 transcription errors led to deletion of 2 projects from the RD list we examined.

***/ One transcription error brought the list total down to 22.

****/ One project was excluded from these 23 as a function of RNAA's definition of rural electrification.

Table 2

	*RD	SM	N	Comments
ASIA				
Asia Regional				
4980133		x		Included only in SM. Found in PBAR using code 062, rural electrification, as a secondary tech code for the project. RD did not find the project because its tech code search stopped with primary tech code. The project did not deliver service, hence had the RD project found it, it would have been eliminated. Project is in DS/DIU TEXT data base without a rural electrification key word.
4980236		x		Included only in SM. Found in PBAR using secondary tech code 062 as above. RD did not search secondary codes.
4980260		x		Included only in SM. Found in PBAR using primary tech code 062. Not in RD project set because it came on system after RD searches performed. (2/78)
Bangladesh				
3880021	x	x	x	RD found it in PBAR with primary tech code of RE; it was not in text at time of RD search. Nathan found it in PBAR and in the budget and office status of Loan Agreement (SLA, hereafter). SM found it via TEXT key word rural electrification.
India				
3860233		x	x	All found using TEXT key word rural electrification. RD retrieved but placed on exclusion list.

*RD= Rural Development project
SM= Sectoral Mapping project
N = Nathan Rural Electrification project

Table 2

	RD	SM	N	Comments
3860342	x		x	RD and Nathan found using TEXT key word rural electrification. SM did same search but did not retrieve the project.
Indonesia				
4970267	x	x	x	RD got the project from PBAR with primary tech code 062; it was not in text at time of RD search. SM and Nathan both found in TEXT via key word rural electrification. Nathan also found it in PBAR and SLA. (SM did not look for additional sources if it was found in TEXT.)
4970283		x	x	Nathan found project in PBAR. SM found project in PBAR using 062 primary tech code. Project retrieved on RD printout in same manner, but does not appear on RD inclusion or exclusion lists. Project in planning stage.
4970295		x		PCI located project using secondary technical code of 062. Project is in the planning stage.
Pakistan				
3910408	x	x	x	Nathan retrieved project from PBAR, as did SM and RD using primary tech code 062.
Philippines				
4920031			x	Nathan retrieved from SLA. Project did not appear in key word search of DS/DIU's TEXT data base or in primary and secondary tech code search in PBAR. NOTE: A subsequent title search of PBAR by SM (Nathan records project title as "Rural Electrification V") did not retrieve this project.

Table 2

	RD	SM	N	Comments
4920189			x	Nathan retrieved from DIS, PAIS, and SLA. SM key word and tech code searches did not retrieve project. Same for RD. NOTE: Subsequent title search of PBAR by SM retrieved project. Project not coded in tech code field.
4920236	x	x	x	All three retrieved from DIS rural electrification key word search.
4920248	x	x	x	All three retrieved it from DIS rural electrification key word search.
4920306	x			Subsequent title search of PBAR by SM retrieved project. Project title is "Rural Electrification IV". However, project does not contain tech code of rural electrification. RD source unknown at this time (probably manually retrieved from desk).
4920314	x	x	x	Nathan retrieved from PBAR and SLA. SM and RD retrieved through primary tech code.
4920315	x	x		RD and SM retrieved project through primary tech code. Nathan retrieved project but did not classify as rural electrification project.
4920316	x			RD source unknown at this time (probably manually retrieved from desk).
4920321	x	x	x	Nathan retrieved from PBAR. SM retrieved through DIS key word search. RD source unknown at this time. (RD's DIS key word search did not retrieve this project, probably because it was not on system yet.)

Table 2

	RD	SM	N	Comments
Thailand				
4930175			x	Nathan retrieved from PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
4930217			x	Nathan retrieved from PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
4930248		x	x	Nathan retrieved through DIS-IRD key word search. SM retrieved through rural electrification key word. RD found through key word search but decided to exclude.
Vietnam				
7300357			x	Nathan retrieved through PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
LATIN AMERICA				
Bolivia				
5110000	x	x	x	All three retrieved through DIS-RE key word search.
5110046	x			RD source unknown at this time (probably manually retrieved from desk).
5110049	x	x	x	Nathan retrieved from SLA. SM and RD retrieved through primary tech code.

Table 2

	RD	SM	N	Comments
5110205		x	x	Nathan retrieved from PBAR and SLA. RD and SM retrieved through primary tech code. RD retrieved but placed on exclusion list.
5110364			x	Nathan retrieved through DIS RE key word search. SM and RD key word searches did not retrieve project.
5110488	x		x	Nathan retrieved from Bureau file. RD source unknown at this time (probably manually retrieved from desk). SM key word tech code and subsequent title search did not retrieve project.
5110491	x	x		SM retrieved through secondary tech code. RD source unknown at this time (probably manually retrieved from desk).
5110493	x	x	x	Nathan retrieved through PBAR. RD and SM retrieved through primary tech code.
Brazil 5120105			x	Nathan retrieved through PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
5120228			x	Nathan retrieved through PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
Chile 5130191			x	Nathan retrieved through PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.

Table2

	RD	SM	N	Comments
Colombia 5140098			x	Nathan retrieved through PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
Costa Rica 5150092			x	Nathan retrieved through DIS-RE, SLA, and Bureau file. SM key word and tech code searches did not retrieve project, nor did RD searches.
Ecuador 5180071			x	Nathan retrieved from PAIS and SLA. SM was not authorized to search PAISHIST RD chose not to search PAISHIST for RE projects.
5180099		x	x	Nathan retrieved from DIS-RE and SLA. SM retrieved from DIS key word search. Project retrieved on RD printout in same manner, but does not appear on RD inclusion or exclusion lists.
Guatemala 5200214			x	Nathan retrieved from SLA and Bureau file. SM and RD key word and tech code searches did not retrieve project.
5200248	x		x	Nathan and RD retrieved from PBAR. SM failed to retrieve through tech code or title search of PBAR.
Honduras 5220138	x	x	x	Nathan retrieved through DIS-RE and SLA. RD retrieved through primary tech code. SM retrieved through key word search.

Table 2

	RD	SM	N	Comments
Jamaica				
5320046		x	x	Nathan retrieved through DIS-RE and DIS-IRD. SM retrieved through key word search. RD failed to retrieve through key word or primary tech code.
Nicaragua				
5240044			x	Nathan retrieved through PAIS and SLA. SM was not authorized to search PAISHIST RD chose not to search PAISHIST for RE projects.
5240078	x	x	x	Nathan retrieved through DIS-RE, PBAR, and SLA. SM and RD retrieved through key word search.
5240096	x	x	x	Nathan retrieved through DIS-RE and SLA. SM and RD retrieved through key word search.
Peru				
5270119	x	x	x	Nathan retrieved through PBAR and SLA. SM and RD retrieved through primary tech code.
Uruguay				
5280008			x	Nathan retrieved through PAIS. SM was not authorized to search PAISHIST. RD chose not to search PAISHIST for RE projects.
NEAR EAST				
Afghanistan				
3060041		x	x	Nathan retrieved through SLA. SM and RD retrieved through primary tech code. RD placed on exclusion list.

Table 2

	RD	SM	N	Comments
3060101		x	x	Nathan retrieved through DIS-RE and SLA. SM and RD retrieved through key word search. RD placed on exclusion list.
Egypt				
2630074	x		x	Nathan retrieved from PBAR. SM overlooked in draft. RD retrieved through primary tech code.
Jordan				
2780209	x		x	Nathan retrieved through SLA. SM key word and tech code searches did not retrieve project. RD source unknown at this time (probably manually retrieved from desk).
Syria				
2760018	x		x	Nathan retrieved from PBAR and SLA. SM tech code and key word searches did not retrieve project. RD primary tech code search retrieved project.
2760025		x	x	Nathan retrieved from PBAR. SM retrieved through primary tech code. RD failed to retrieve. Likely that project is new entry on system.
CENTRALLY FUNDED				
9250203		x		SM retrieved through key word search. RD retrieved through key word search but did not list on inclusion or exclusion lists.
9320087		x		SM retrieved through key word search. RD retrieved project but narrative text was not yet available.

Table 2

	RD	SM	N	Comments
9320117		x		SM retrieved through primary tech code. RD failed to retrieve through primary tech code, possibly because project had not yet entered system.

Possible Ways to Improve the Quantity and Quality of Information Supplied by the Office of Development Information, Agency for International Development

Discussion Paper No. 1

The Office of Development Information supplies information about foreign aid projects which have been, or are being conducted by AID, its predecessor agencies (hereafter referred to merely as AID), other governments and other organizations, to AID personnel who see an economic or social problem in a foreign country eligible for AID assistance and wish to know how such a problem has been dealt with in other countries and who usually, but not in all cases, have submitted a Project Identification Document (PID) proposing AID assistance to or through the Host Government, a Private Voluntary Organization (PVO), or a U.S. University or other organization.

DI's ability to respond is circumscribed by its ability to find pertinent information in a reasonable time and at a reasonable cost. These parameters are the subject of this Discussion Paper. Various aspects are treated under numbered headings.

1. At present, information is available only about AID projects. Ways of obtaining information about other projects will be worked out later.

2. DI's basic source of information is the AID Reference Center (ARC), which has been incorporated into, and as a part of DI.

3. ARC contains a wealth of information but not necessarily all of the AID experience since there has been, and is, no requirement that program (project) documents and other materials relating to the project such as reports, be sent to ARC by the action offices.

4. A second limitation on the usefulness of information in ARC is the ability to retrieve it at a reasonable cost. This arises from the diversity of documents in ARC and the fact that many of them have not been keyed to

identifiable projects. For example, Completion of Assignment Reports (COARS) by personnel who have been associated with projects, usually do not show the project number and may not show the project name. It shows the writers occupational designation or title but this does not necessarily disclose the project on which he worked. The same is true of consultants reports, and may be of other reports such as those by contractors and participating agencies. Those in ARC are indexed by author and title, which may or may not readily identify either the problem or the project. In fact, the titles and preface, or introductory statements may reflect one or more operating operational problems which arose in the conduct of a project, or a group of projects, or a sub-project or project activity without disclosing the specific project as identified by an AID project number and title. (See further discussion on this in item _____.) Thus the information which ARC can supply, without unreasonable cost, probably is less than is available in ARC and more probably is less than that, which over the years was written about the project but never found its way into ARC.

5. ARC compiles a file folder for each AID project which is listed in a Country Program Data Bank (CPDB). This folder contains the information ARC has available, as identified by ARC as relating to that project. This consists of the regular project documents including Project Appraisal Reports (PARS), but not any irregular or special appraisals such as by a consultant, or a team. The special appraisal reports are indexed and cataloged by ARC under author(s) and title, and not as a part of the project documentation. PARS are available however for only a small fraction of the projects. Completion of Assignment Reports (COARS) also are not included in the ARC file folder, since they are indexed and cataloged by ARC under the name of the author and not as a part of the project file. Some COARS show the name and number of the Project, but many do not.

6. Thus the information in the file folder usually consists of what is essentially the project design. The PAR shows what progress had been made under the project, and may or may not indicate modifications recommended. Such modifications as are indicated usually change only numbers of persons to be trained within a certain timeframe and not any substantial changes in the project design.

7. DI abstracts from the information in the file folder, salient information about the project. This includes the PARS, if any have been made but not special reports.

8. Special appraisals have been searched out and are being abstracted separately from the information in the ARC file folder.

9. The CPDB, from which ARC is working, contains approximately 2,200 AID projects on which all actions had not been completed before September 1974 or after about September 1976. Thus the universe with which DI now is engaged is a slice of the approximately 9,000 projects in which AID has been engaged. Presumably later projects will be abstracted after these 2,200 have been completed. The situation is less clear and is open for later discussion with respect to the 6,800 old projects on which action had been completed before September 1974.

10. Abstracts have been completed for the projects in AID's fields of Agriculture and Rural Development. The file folders, and hence the abstracts, for these projects do not include special appaaisals, COARS, or consultants or consultants' reports. The question as to whether an intensive search should be made for COARS and other reports not in the original ARC file folders is another for subsequent consideration.

11. Beginning with the field of Nutrition, on which abstracting now is in progress, COARS are being included in the file folder. Only a fraction of the file folders however include any COARS. There may (or may not) be others

in ARC which are not being found because they do not show the number of the project with which the writer of COAR was associated. A question thus arises as to whether recovery of pertinent COARS would be worth the cost of a more painstaking search. Such recovery would be time consuming, but is not necessarily as difficult as it might appear to be, since there are linkages which may be utilized. For example, writers of COARS frequently mentioned the names of their predecessors, co-workers and successors. Personnel rosters, which may, or may not be in ARC could be useful. Another source might be the records of the AID Office of Personnel Management, but most probably these records have been retired and it would be costly to review them.

12. An argument against COARS is the charge sometimes made that they are negative, biased and parochial; that they reflect the trials, tribulations and frustrations of the field technician who was not aware of, or in sympathy with larger issues. If this is found to be a fault in a particular COAR, a crosscheck can be made against other documents, such as COARS or other reports by the section chief (in a large mission) such as the Chief of the Livestock Section, who was responsible for the project on which the technician served or the Chief of the Division (Agriculture, Health, Education, etc.) or by comparison with Mission Directors' Annual Reports, which, depending on the size of the mission may reflect broad issues which affected the project and the endeavors of the technician, project manager or division chief.

13. Many AID projects have been carried out, in whole or in part under Participating Agency Service Agreements (PASAs) and to a lesser extent under agreements with other U.S. Government Agencies under Regional Agency Service Agreements (RASAs). The extent to which copies of reports under these Agreements are in ARC is not known.

14. Related to the PASAs, and perhaps to the RASAs, are the reports to the participating agency by its personnel. Presumably copies of these could be obtained, at least for recent years, from the participating agency, at no

great cost. Reports by the Team Leaders would be particularly useful.

15. Contracting Universities reports sometimes are not in ARC. These are of three kinds: (a) the University's reports to AID which usually were required on an annual or semi-annual basis; (b) the Chief of Party reports to the University, usually at least annually on or completion of his 18 month or two-year tour of duty, and often at shorter intervals, as well; and (c) reports by individuals assigned to the project, usually at the end of his or her tour of duty.

If it is known that a project was conducted (in whole or in part, usually in whole) by a University, it might be possible to obtain copies of its reports at least for recent years, at minimal cost.

16. Commercial contractors reports, if not available in ARC, certainly should be from other offices in AID. There would be personnel costs in locating and obtaining copies of those for recent years. The question as to whether older reports should be obtained from retired files would be for consideration with respect to the broader question as to whether eventually DI attempts to include projects with a life span expiring before September 1974 in its portfolio.

17. The matter of obtaining information from international organizations, including Development Banks, and from other donor countries, concerning their projects is not within the purview of this Discussion Paper but the question as to whether it would be worthwhile to tap the experience of the Peace Corps is. While much of what the Peace Corps did and is doing cannot be viewed in terms of the equivalent of AID projects, there have been many innovative and energetic Peace Corps volunteers who conducted "projects", which, while limited in scope and geographic coverage compare very favorably with AID project activities which were concerned with "action" programs--for example poultry, inland fisheries,

forestry, soil conservation, local irrigation and sources of water for irrigation, crop improvement and production, maternal welfare clinics and other health services and possibly in teacher education, literacy and other adult education. Whether the Peace Corps has records of these which could be made available, and their worth, if available, might well be the subject of a preliminary investigation.

18. Related to the Peace Corps activities, are those of the International Voluntary Service (IVS), which sometimes received funding from AID and is reputed to be the precursor to the Peace Corps.

In at least one country, Vietnam, during the late 1950's, the IVS volunteers were teamed up with AID technicians in agriculture and made significant contributions to the AID Agriculture Program. (When the IVS activities were phased out in Vietnam, many of the volunteers were employed by AID.) Here, as in the case of the Peace Corps, it is not known whether IVS has available records which could be obtained by DI at reasonable cost, or if so whether acquisition of them would be worthwhile but would bear initial investigation.

19. Related to the Peace Corps and IVS is the question as to whether ARC has any Peace Corps or IVS reports, and if so whether they can be either related to AID project activities, or even if not, as to whether the experiences are worth including in the DI data bank.

20. DI personnel other than the abstractors are abstracting consultants' and other reports other than PARS which make evaluations or appraisals of AID projects. When the current effort is completed, it might be well to consider this being done by the same person who abstracts the material in the ARC file folder. This might give a better rounded view of the project and a better perspective to the abstracts.

21. Other DI personnel are compiling "packages" of material in response

to specific queries and in reaction to PIDs. They draw information from the computer on similar projects and problems. They also have available the hard copy abstracts, the ARC file folders, the abstracts of special appraisals and the hard copy of the special appraisals which have been abstracted. They also pursue the subject beyond what is given in the abstracts and the documents which were abstracted. For example, they try to locate COARS and contractors' and other reports, they contact PVOs for pertinent information and sometimes, if appropriate correspond with private firms which specialize in some specified technology (~~in~~ a grain storage). Time limits in response to the query however constrains the extent to which this acquisition of additional information can be pursued. This raises the question as to whether a finished "package" should be attempted in a short span of time or whether as an alternative, DI pursue a policy of a flow of information, making an initial response to the effect that DI is working on a reply to the query, subsequently a limited response giving the information ~~is~~ readily available, and later providing additional information as it becomes available. At some time, however, DI should indicate that the search has been completed and that the flow of information is stopped unless the inquirer has additional questions, or asks for additional (hopefully, specified) information.

In this approach, informality would prevail and a two-way communication link would be established. This would permit the inquirer to help guide the search and would give the person in DI more time to obtain information, for example, by obtaining copies of reports by contractors, participating agencies, PVOs, Peace Corps or even technicians who worked on the project or communications from other AID or PASA personnel or former employees who had knowledge of the project.

22. This brings up the matter of "Experts" and "Expert Institutions".

The "packages" of information which have been compiled usually show "none". Another category might be added--that of "Knowledgable Persons". If it were to be decided that such a category should be added, then dates should be given, since one person might have been knowledgable about the project at one time, but not much before, and more certainly, after he left the country in which the project was located or the assignment which brought him in contact with it. The most obvious "knowledgable person" is a technician who worked on the project, but he is not the only one, and there are others who perhaps have a broader perspective, for example the Section Chief (usually the project manager) or the Division Chief of a large Mission, or Contract Team Leader or Chief of Party, a program officer, or in a smaller Mission, even the Mission Director of Deputy Director. Their input should be obtained before they are listed as knowledgable persons unless they are authors of reports on the project.

The gist of this is that the "knowledgable person" had first hand knowledge of the project at some point in time. Often the views of "knowledgable persons" diverge. There is a tendency for personnel to disparage, often through lack of understanding, but sometimes because of differences of style and approach, the work and accomplishments of predecessors. This often resulted in significant changes in the project, and in the case of Division Chiefs and Mission Directors, of the emphasis given to the project, changes in its scope or direction, and even of its abandonment in favor of some other kind of activity. Consequently, the views of "knowledgable persons" may well be taken with large grains of salt.

23. Extreme care should be taken in designating "Experts" and "Expert Institutions". If any are named, there should be a disclaimer that the list if not exhaustive. Some institutions spring readily to mind, as experts in their fields, IRRI in rice improvement <u>for Asia</u> (but there are people at Louisiana State University and in California, and perhaps other states who

have a just claim to being experts in rice improvement, albeit, mostly for areas in the U.S.) and there are Japanese and Indian scientists who would claim to not only being experts but also that the institutions in which they work are "Expert Institutions".

The same is true with respect to the Rockefeller Foundation and more specifically the Wheat and Maize Improvement Center (now CIMMYT) in Mexico but corn breeders at ~~other~~ Midwest Universities are not only experts, but have made the Colleges of Agriculture in those states "Expert Institutions" and many have contributed greatly to corn improvement in the LDC's.

In some cases there are such outstanding persons and institutions that no one would object to them being listed as long as no pretense is made that the list is complete, but there are degrees of fame and sometimes controversy between scientists.

The examples given above all are in Agriculture; but are illustrative and probably depict the situation in other fields.

Section 4

Purpose to Goal

This section of the report discusses the contribution of DS/DIU/DI to the highest level objectives to which he Office of Development Information aspires. The first part of the section is devoted to an examination of the Goal and Supergoals to which DS/DIU/DI is expected to contribute. The second part examines evidence concerning DS/DIU/DI's Goal level achievement.

A. THE HIGHEST LEVEL OBJECTIVES OF THE OFFICE OF DEVELOPMENT INFORMATION

In any Logical Framework, only a portion of the total logical structure of objectives into which a specific activity fits are normally displayed. Thus, the Goal level statements developed for AID projects overseas or for its efforts to develop new capacities within the Agency often reveal only the "tip of the iceberg". In the Logical Frameworks prepared for the Office of Development Information the Goal hypothesis states that if DS/DIU/DI provides project and program planners with pertinent information then Agency project designs will improve.

An examination of this hypothesis in the context of the Agency's mandate to bring development benefits to the poor, makes obvious the fact that the logical chain of objectives to which the Office of Development Information hopes to contribute does not end with improvements in project design. Good project designs are linked in an hypothetical manner to still more

ambitious objectives. To clarify the nature of the next level in the objective hierarchy, one only need ask the reason for improving project designs. The reasons lead directly to AID's mandate, as shown below:

IF.....AID project designs are improved,

THEN.....The real projects AID supports and monitors will be improved (i.e., they will be better managed, more appropriate for the situations in which they are undertaken, more knowledgeable and sensitive to what works on-the-ground, as well as, in theory, more attuned to host country needs and interests and more likely to be sustained by the host country after AID assistance terminates).

Taking this logic one final step:

IF.....AID funded projects are "better" in demonstrable ways,

THEN.....The development benefits those projects yield for the poor people of the developing nations will increase.

As the figures above suggest, the objectives of the Office of Development Information, when taken to their logical conclusion focus directly on the Agency's raison d'etre.

By following the logic of DS/DIU/DI's objectives through to their highest level, two things become obvious:

- DS/DIU/DI's place in the Agency is clear; the unit is logically required. As the hypotheses outlined above strongly suggest, the Agency's success may depend heavily on the success of the Office of Development Information.

- There is very little evidence concerning the validity of the hypotheses that lie between the Goal of DS/DIU/DI's Logical Frameworks and the final objectives in this hierarchical chain. That is:

  -- Evidence concerning the relationship between public sector activity and development is ambiguous.

  -- The relationship between the quality of project design documents and the quality of on-the-ground projects is not fully known:

     (1) As DS/DIU/DI knows all too well, AID has few evaluations that provide concrete evidence about the effectiveness and impact of its projects, let alone the correlation between effective, high impact projects and the kind of information presented in the design documents for those projects.

     (2) The presence of information in a design document for an approved project is not proof that the information in the document was used in making a decision to approve the project. External reviews of approved Project Papers commissioned by AID have indicated that data buried in PP annexes at times argues against project approval. These reviews suggest that the link between information and decisionmaking is not always as direct as the "better information, therefore better projects" hypothesis implies.

     (3) It has been suggested more than once, in anecdoctal fashion, that there have been instances when the difference between a project design document and the on-the-ground-project it purported to describe has been substantial.

The purpose of pointing out these higher levels of objectives is not to suggest that the Office of Development Information is unaware of the hypotheses or of the lack of evidence concerning their validity. On the contrary, it was PCI's experience that the staff of the Office was both aware of the problems and working to understand their ability to influence the achievement of these "above the Goal level" objectives. The problematic nature of the hypothesis concerning the relationship between project design documentation and effective, high impact projects has been a matter of concern for the information specialists. They have felt the frustration that grows out of creating response packages that provide project design documents but no evidence of the effectiveness and impact of these designs. Because they are focused on the Supergoal of "effective development projects", the staff of the Office of Development Information is highly sensitive to the ways in which their own effectiveness, their contribution, is constrained by the absence of adequate evidence about what types of projects work, "on-the-ground", and actually yield social and economic benefits for the poor in developing countries.

B. GOAL

In this subsection, PCI reviews the question of whether AID's project designs have changed and to what degree the information packages prepared by DS/DIU/DI might explain such changes as can be identified.

DS/DIU/DI has prepared three types of information packages that might be used by project designers to improve design submissions: semi-automatic responses, automatic responses and direct responses. Expectations about how these information might influence project designs include the following:

- Semi-automatic packages, which are developed after PIDs are approved, could result in changes and improvements in PPs, implementation plans and evaluation designs.
- Automatic and direct response packages, which are developed without regard to the project cycle for a specific project, could result in changes and improvements in PIDs, PPs, implementation plans and evaluation designs.

The best direct evidence of effect would be found in cases where real changes/improvements in design documents were made and (a) are attributed to DS/DIU/DI by AID personnel or (b) can be shown in document reviews to relate to DS/DIU/DI packages. Hardly any evidence of either sort exists. PCI knows of only one instance of direct user attribution in a Project Paper: a PP on Appropriate Technology submitted by the Peru Mission. Document reviews conducted by DS/DIU/DI for PPs prepared after receipt of semi-automatic packages, during 1976-77, did not reveal the type of changes between PIDs and PPs that would have demonstrated effect.

Indirect evidence of effect might be discovered by a comparison of the quality of PIDs and PPs prepared before DS/DIU/DI began sending out information packages with those which have been prepared more recently. No formal comparison of this sort has been undertaken. However, PCI, in the course of other contract work for AID, has informally compared older project documentation with more recent PPs. The findings from these reviews have indicated that recent PPs provide more backup documentation than was the case in earlier years. This change could be explained in a number of ways, including:

- Changes in the requirements concerning the preparation of project documents.
- Changes in the skills available in the Missions, i.e., during the same time period a number of Missions have added sociologists and/or anthropologists to their core staff.
- Growing sophistication on the part of AID and LDCs concerning the factors which facilitate and hinder project success, i.e., a new level of concern with such issues as "participation" and a change in focus that is resulting in the development of more "village level" projects.
- Changes in the level of effort devoted to the preparation of project designs, i.e., in the same time period AID has created resource pools on which Missions can draw to examine a variety of issues between the time a PID is approved and a PP is prepared.
- Changes in the personnel assigned to carry out design tasks, i.e., more involvement of specialized personnel (often through task order arrangements with contractors, RSSAs and PASAs and universities) in the design process.

- A change in the focus of AID/W, particularly in the technical support area, i.e., the reorganization of TAB and other support functions under the new Development Support Bureau which has more of a field support orientation than did TAB.

- The presence of DS/DIU/DI and its information packages.

As this list suggests, the problem of attributing changes in the volume of backup documentation for PPs is substantial. Further, it is important to note that additional documentation is not necessarily a measure of "better design", it simply assesses the bulk of the design documents.

As the extended logic of DS/DIU/DI's objectives indicated, the only adequate measure of whether project designs are "good" is the effectiveness and impact of projects that implement these designs. Information of this sort is simply not available at the present time. Other indicators of design "goodness" might include the speed and ease of design review procedures, the speed with which work on a project begins after approval (i.e., time not spent in examining implementation issues after approval), the Agency's ability to disburse funds per the design schedule, etc. However, it is again the case that, if such measures were made there would be difficulties in attributing improvements to DS/DIU/DI rather than to some other factor.

Perhaps the most important finding from PCI's review of potential indicators of DS/DIU/DI's Goal level achievements is that there is a lack of standards against which "good/bad" design documents or "good/bad" projects are judged. Thus, AID's project designers and managers, and hence DS/DIU/DI, end up applying subjective criteria in judging their work. This will continue to be the case until AID empirically defines:

- What types of projects do and do not yield specific types and levels of social and economic benefits for the poor, under known socio-cultural, economic, physical and political conditions.

- What is needed by way of project design information and documentation to mount projects that will provide these benefits, and

- What portion of the needed project design information can best be provided by a centralized information service such as DS/DIU/DI.

Section 5

Recommendations

PCI's final report on this engagement has examined both the work carried out under Contract Number AID/otr-C-1501 and the efforts undertaken by AID itself in the course of establishing an Office of Development Information for the Agency. In this section of the report, PCI examines DS/DIU/DI's opportunities to make improvements in the services it provides.

A. GENERAL CONCLUSIONS

In 1975, the Office of Development Information was simply an idea. Today it is a functioning unit within AID's Development Support Bureau. This final report has presented the historical record of DS/DIU/DI's development and examined the evidence of achievement at the Output, Purpose and Goal levels of the Logical Frameworks developed during the earliest phases of DS/DIU/DI's existence. While the evidential record in some areas is sparse, the overall picture of DS/DIU/DI's development is fairly clear:

- The Office has developed along the lines envisioned by the 1975 design study.
- Today it has a clientele within AID and in other organizations that are involved in the process of designing and implementing development assistance projects.
- The Agency as a whole has gained self-knowledge through the creation of DS/DIU/DI:

  - It now has a relatively accurate picture of the types of development assistance efforts it has designed and implemented over roughly a ten-year period;

  - It has the ability to rapidly identify, with reasonable though not complete accuracy, where and when different types of projects were undertaken and what is known about their implementation and their impact.

- DS/DIU/DI's continued existence and the demand for its products expressed through direct inquiries provide rough measures of its viability and perceived utility.

- However, DS/DIU/DI does not today provide all of the services that it was originally expected to provide. Its small staff responds to all the direct inquiries the Office receives, but it is not able to produce the full range of semi-automatic and automatic responses that it was anticipated DS/DIU/DI would prepare.

- Further, the response packages produced by DS/DIU/DI are not always as informative as had been hoped. The Agency's lack of project impact data, the fact that AID did not fully develop all five of the information "files" contemplated in the original design as well as remediable flaws in the coding and key wording of projects in the data base that DS/DIU/DI manages all affect the quality and potential utility of DS/DIU/DI's products.

As this summary of DS/DIU/DI's current position suggests, the opportunities for improving the Office's services are of two types: Those which DS/DIU can act upon without the assistance of other Agency offices and those whidh require the cooperation, participation and support of other parts of AID.

B. RECOMMENDATIONS

AID has made a significant investment in the creation of an Office of Development Information. That Office is now a functioning unit on which AID's project designers and managers depend for information that can be used in connection with project design and implementation. The investments AID has made to date in DS/DIU/DI have translated an idea into a reality. However, since DS/DIU/DI exists in a changing environment, it too must be prepared to change: To grow and improve or, by default, to lose its dynamic, self-improving

character. The one thing that will be virtually impossible is for DS/DIU/DI to retain its current effectiveness without changing as its user's needs and the universe of potentially relevant information changes.

DS/DIU/DI, which operates under staff and information constraints, today provides services that begin to approximate early expectations concerning the Office's potential. There are, however, noticable differences between AID's original conception of DS/DIU/DI and the Office as it stands today. These differences, if addressed, could bring DS/DIU/DI to full capacity and significantly improve the quality and potential utility of its products to the Agency.

PCI recommends that AID undertake a series of remedial and developmental actions to capitalize on the progress it has already made in creating a full-scale information analysis center within the Agency. Our recommendations are divided into two categories: Actions that DS/DIU itself can undertake and actions which cannot be undertaken without the support of other parts of the Agency.

1. Action Recommendation for DS/DIU/DI Implementation

PCI recommends that DS/DIU/DI implement an action program to improve the quality of its service products. The elements of this program should be designed to:

- Eliminate flaws in the Office's automated data base that limit the accuracy of its answers and demonstrably improve the degree to which data base printouts provide a full picture of project activity in a given area. The specific actions DS/DIU/DI could take in this regard include:

  (a) Identify discrepancies in the projects identified by searches carried out using different approaches, i.e., key word searches versus PBAR code searches;

  (b) Increase the number of projects that can be located for clients who are interested in current topical areas by periodically

reviewing the key words for all projects on file and adding newly developed key words where appropriate, e.g., "participation" and "labor-intensive" are both identifying terms that have gained currency in the last few years. An update of all project key words could be used to add terms of this sort to projects not previously key worded in a manner which would result in locating them in, for example, a search for all "labor-intensive" projects;

(c) Add approved PIDs to the data base, even before they are developed into final PPs. The addition of approved PIDs would result in printouts that more completely define the number of activities AID has initiated in a given area and would suggest to the system users where they might find colleagues who are interested in some of the newer types of development assistance projects the Agency is undertaking.

- Increase the integration of the abstracting and information specialist clusters and upgrade the skills in both clusters by:

  (a) Periodically placing staff from the abstracting and information specialist clusters on short-term rotation assignments, i.e., each abstractor should have some first-hand experience in creating packages using the information put into the data base and each information specialist should have some first-hand experience in creating project abstracts and assigning key words;

  (b) Periodically updating the training and orientation materials for new staff in both clusters, and providing "refresher" and "staff development" sessions for old staff.

- Improve the Office's understanding of what products its clients need and how they use them by:

  (a) Periodically surveying past requests and packages to identify service patterns and changes in those patterns over time;

  (b) Undertake a more structured program of evaluation within the Office, e.g., develop and use approaches for collecting data that will indicate what segments of the Agency actually receive DS/DIU/DI products, what types of Agency personnel are either unserved or underserved by DS/DIU/DI, how Agency personnel say they use the products they receive from the Office, including the evidence these staff members suggest demonstrates utilization, etc.

  (c) Undertaking an active program of product improvement and new product definition that includes:

- Participation of DS/DIU/DI staff in all stages of the design of one or two new Agency projects in a way that will allow the staff to examine when and how DS/DIU/DI information feeds into that process (i.e., carry out the exercise that was planned for the initial operations phase of DS/DIU/DI's development but was never undertaken);

- Create "new product" development teams that include users, i.e., secure the participation of field and AID/W staff who are in Washington in "new product" seminars, at least semi-annually. This process will not always generate "new products" but even when it does not, DS/DIU/DI should expect that the process will stimulate refinements in and reconsideration of existing products and approaches;

- Take full advantage of staff field trips to examine "new product" needs in the Missions and to gather data on how current products are utilized;

- Periodically examine and update the forward-looking Logical Framework for the Office;

- Undertake an analysis of the work load at full capacity, i.e., if all the packages DS/DIU/DI might create were created, and of the work force. Establish productivity indexes that will allow DS/DIU/DI to accurately estimate the number of staff it requires to carry out various work load levels. Identify the current shortfall for review by the bureau and Agency.

2. Action Recommendations for Implementation by DS/DIU as a Whole

DS/DIU encompasses more than simply the Office of Development Information. Within this unit AID has one of the primary collections of information that is used by DS/DIU/DI Information Specialists and others in the Agency to locate technical and project related materials. This collection, which contains all of the material acquired with the AID Reference Center as well as new materials acquired since the creation of DS/DIU is not easy to access. Its role as a resource to the Agency could be dramatically improved if DS/DIU:

- Key words the holdings of DS/DIU that are not part of project files in DS/DIU/DI using the same key words that are used in DS/DIU/DI's data base;

- Automates the entire card catalogue of AID Reference Center and other DS/DIU holdings once key words have been assigned to each item;

- Creates links between the project data base and the new key worded card catalogue data base that would enable Information Specialists to generate printouts of all holdings that have the same key words as they use to call out project abstracts in response to a query.

By automating this set of materials, DS/DIU would both eliminate unevenness in the DS/DIU/DI response packages with respect to their reporting on DS/DIU's non-project holdings in a particular area and more closely fulfill the request made by field personnel at the time of the pilot tests to have "quick responses" that identified what information DS/DIU/DI could forward to the Missions.

3. Actions for Implementation by the Agency on Behalf of DS/DIU/DI & Its Clients

There are a number of actions that should be taken if DS/DIU/DI is to operate at full capacity as the Agency's information analysis center that cannot be undertaken by DS/DIU alone. In this category, the following recommendations are offered:

- Not all of the Agency information that should reach DS/DIU for processing by the AID Reference Center or by DS/DIU/DI actually reaches these units. To rectify this situation, the Agency needs to strengthen its requirements and enforcement procedures for the submission of materials to DS/DIU. Such requirements and enforcement procedures are needed to increase the flow of two types of documentation to DS/DIU/DI:

  - Project documentation from the Missions and AID/W offices;

  - Materials produced under contracts and other arrangements by universities, contractors, PASAs, RSSAs, etc.

- Five information "files" were originally identified as hypothetically containing the full set of material required to create exemplary, high-quality information packages for AID's project designers and managers. At present only a portion of these "files" exist; only one of the five is actively managed by DS/DIU/DI. To redress this

situation and move in the direction of a full capacity Office of Development Information, PCI recommends that the responsibility for all five information "files" be placed in DS/DIU, i.e.:

(a) Transfer the staff and materials which now exist and would be a part of completed files in the areas of country and program data, technical data, evaluation/special studies holdings, and context data into DS/DIU from other Agency units;

(b) Give DS/DIU the responsibility and adequate staff to create the files which have not yet been established, e.g., the Context File, and to upgrade those files that have only partially been developed.

- DS/DIU/DI now produces only a portion of the response packages it was designed to produce due to work force constraints. PCI recommends that, with DS/DIU/DI, the Agency examine:

  (a) What loss is occurring because some of the DS/DIU/DI products are not being produced, i.e., who is unserved/underserved relative to probable need and the potential for putting information to use in the project design and implementation process;

  (b) The magnitude of the shortfall, i.e., the discrepancy between full capacity work load and current work force;

  Based on this review, PCI recommends that AID adjust the ceiling for DS/DIU/DI Information Specialists to ensure that all of the responses AID and DS/DIU/DI determine should be produced are in fact produced.

PN-AAU-065

THE CREATION OF AID'S DEVELOPMENT INFORMATION ANALYSIS CENTER

A Report on DS/DIU/DI

Volume III: Analyst Reference Manual

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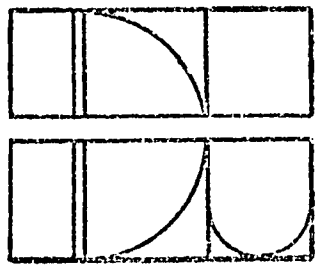
ANALYST REFERENCE MANUAL



Office of Development Information & Utilization

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Chapter 1

Introduction

The Office of Development Information and Utilization (DIU) was created to help designers of AID projects and programs formulate better and more complete plans. DIU evolved from a study aimed at improving Agency capability to draw upon its previous experience. This study was conducted in 1974 and 1975 by the Library and Information Retrieval Task Force.

DIU information analysts have ready access to information on similar projects, and to basic data concerning the geographic location, dates and designs of these projects. The clusters of similar projects identified using the Development Information System (DIS) are a central element of the information package DIU prepares for its users in the Missions, AID/W, contract organizations, and to some extent, host countries and other donors.

In response to direct inquiries concerning AID's experience in specific fields, and in packages that are automatically prepared for project design teams and design review committees within AID, DIU information analysts provide information packages. Through automated and manual searches, DIU analysts develop information packages for users consisting of three types of information:

- Experiential/evaluative information on similar projects that have been conducted in the past. DS/DIU uses DIS to retrieve AID experience. Other automated and manual systems are used to obtain non-AID project material.
- Information with respect to the state-of-the-art, namely information on the technology which has been used in the past or is currently available for consideration. DIS contains some of this data, but the majority of the information is obtained from other technical data bases, such as ERIC, MEDLARS, and from DSB.

- Information that describes the host country context within which projects were conducted. This information is not presently being obtained; it is hoped that the Economic and Social Data Bank (ESDB) will provide this material in the future.

Chapter 2

Types of Responses

DIU is a service organization whose primary mission is to provide project design teams with information packages which assist in developing better project designs.

The form and content of the packages provided will shift over time as DIU gains more experience in response preparation, user feedback indicates what kind of responses meets their requirements, and additional information needs emerge which DIU can satisfy.

DIU presently provides four major types of response packages which can be organized by those who initiate action on the package, as follows:

- DIU-initiated
  - -- quick response package
  - -- automatic response package
- User-initiated
  - -- tailored response package
  - -- simple response package

Each of these response packages is discussed in the remainder of this chapter.

A. QUICK RESPONSE PACKAGE

DIU provides certain services in direct support of the design of specific projects. USAID field missions submit preliminary descriptions of potential projects to AID/W in a document called the PID (Project Identification Document). The reviewing and approving offices in AID/W screen and evaluate these potential projects, approving some. Approval of a PID document is an indication that the preliminary project idea has merit and that further development and analysis is authorized on the part of the project designers (which may be a team including mission staff, host country personnel,

AID/W subject experts, individuals from various institutions, etc.). When the PID is approved, DIU develops a quick response package of information which assists the designers in developing a better project and writing the PP (Project Paper).

This package provides a quick overview of similar AID project experience and readily available DI, ARC, and other AID/W technical and project-related literature to the project designers who have proposed, or are contemplating development of a certain type project. The quick response is a low-cost technique to clarify with the project designer the nature of his project and the issues addressed, provide relevant project summaries, design information, description of other resources, and easily available bibliographies or technical information, and to offer additional assistance to the designers. A quick response package might include:

- identification of the key issues/problems which the PID addressed or the project may encounter;
- a description of other relevant information sources the designer could go to;
- abstracts and available evaluations of on-going and past related AID projects;
- a brief bibliography of readily available technical documents;
- an offer to provide additional assistance along more specific lines which the designer may request.

This package has been structured to streamline DIU's response to the Field, while still incorporating some "front-end" analysis and research. The premium on a quick response is on speed and quality; the designer must be provided with an overview set of useful documents early enough to assist with the preparation of the Project Paper. Quick response packages for approved PIDs are generally sent to the user within two weeks after assignment to an analyst.

DIU's involvement may end with the preparation of a quick response package, or continue if the project designer requests additional services from DIU.

DIU encourages Mission-initiated requests at the pre-PID stage so that useful information is provided for inclusion in the PID submission. Increasingly, quick response packages will be developed pre-PID in response to desginer requests in advance of PID development.

(The discussion in this section also applies to quick response packages initiated by user request at the pre-PID stage. If the pre-PID request is sufficiently well-defined and states specific issues which can be addressed without further qualification from the project designer, then the analyst may choose to produce a tailored response package.)

B. AUTOMATIC RESPONSE PACKAGE

Certain topics are of such inherent interest and applicability to a large number of projects that DIU will develop automatic packages. Automatic packages are initiated by DIU and are widely disseminated to users as the office assesses AID project trends and identifies certain topics which have broad application across many of AID's planned/proposed projects. The frequency of similar project types seen in PID submissions suggests topic areas for automatic response packages. Topics comprehensively addressed by other AID research will not be included.

DIU has already developed and circulated automatic responses covering the topics of appropriate technology and integrated rural development. Possible topics for future automatic packages include fisheries, small farmer credit and rural employment, integrated health delivery, and essential cooperatives.

Of all DIU responses, the automatic response requires the most concentrated research and analytic effort. Automatic packages include an extensive literature search, the collection and analysis of state-of-the-art information from AID and external sources, project summary and evaluative information, "how-to" and technical information as well as other relevant documentation needed to treat the subject comprehensively. All automatic response packages are reviewed by technical experts or specialists in the appropriate subject area.

C. TAILORED RESPONSE PACKAGE

This package is prepared in response to a Mission, AID/W, and AID contractor or other donor (PVO, PEACE CORPS, UN, etc.) request for information which requires a substantial research and analytical effort by the analyst. The information request may have been initiated by the requestor or may have been triggered by a quick response, automatic package or prior tailored package (on the same subject) sent to the requestor by this office. In the latter case, the requestor usually desires more detailed or additional information. The response might contain any or all of the following components:

- similar project descriptions with additional design notes and evaluative material;
- alternative project approaches to achieve goal;
- individuals/insitutions associated with the similar projects;
- bibliographies of technical and project-related literature;
- abstracts of key documents or the documents themselves;
- an automatic response package and an analytical synopsis of the entire text.

Requests for a tailored response may come by letter, memo, or cable. Your cover letter, if a prior package was sent, invited the designer to solicit further assistance. Your letter encouraged the designer to be explicit in defining further needs and to indicate his time constraints. If the request you receive is vague or ambiguous, you may ask that it be clarified, or offer your interpretation of what is needed before continuing with the search.

The time and effort required to process a tailored response request will vary widely, according to the nature of the request. For requests which take more than two weeks, the normal procedure is to write the requestor of the information, acknowledge receipt of the request and specify the target date when such information will be sent.

D. SIMPLE RESPONSE PACKAGE

The simple response package is prepared in response to a Mission or AID/W request for specific information which requires no research or analytical effort by the DIU staff. The information request could have been initiated by the requestor or triggered by an earlier response package sent to the requestor.

The content of a simple response package might include a computer listing, a cover memorandum, an automatic response package, xeroxes of project documents, a bibliography or a set of documents that are readily available and can be sent out immediately to the requestor. The level of effort in a simple response is typically a one to two day response preparation time. The type of task being performed is typically that of a research librarian going to the card catalog or to the terminal and compiling a quick listing of available information references or accessing existing documentation "on the shelf" to be packaged and sent to the field with a minimum amount of work.

Note: A request for a compilation of a bibliography of documents (not available for quick access) from many different government and other donor sources would require substantial research and a considerable amount of time and therefore would be classified as a tailored package.

Chapter 3

Types of Information Resources

A. DIU'S APPROACH TO INFORMATION

DIU's approach to providing information to users may be described as the full set of activities required to:

- Obtain, analyze, synthesize, package and disseminate the state-of-the-art in project and development strategy and techniques;
- Extend awareness of the availability of both AID and non-AID information relevant to all stages of the project design process;
- Aggressively access all relevant information, within AID and other collections;
- Use the search and reference capabilities of other agencies as a means of directly extending AID's capability; and,
- Provide information regarding AID's past efforts, experience, and lessons in any particular area of project endeavor.

DIU is oriented towards obtaining, analyzing, and providing decision-making information. The value of the information derives from its use to project designers in making decisions concerning alternative project design strategies. Thus, there is an emphasis on analytic and evaluative material concerning various project approaches which have been undertaken, the results of those approaches, and the lessons which former experience can provide for the project at hand.

DIU provides both analytic and descriptive information. In its analytical role, DIU does not give the user the full body of information related to the project which can be retrieved from the information sources. Rather, DIU performs the analytic task of sorting and culling the

literature to synthesize an information package explicitly tailored to user needs. In its descriptive role, DIU provides copies of core technical and "how-to" documents which the user can work with and analyze to design the best possible project.

DIU does not intend to duplicate and maintain the technical literature and other collections needed by AID which are available elsewhere. There are many sources of comprehensive information and referral services both inside and outside AID. It is necessary only that DIU be able to identify and access relevant collections.

The materials which DIU collects and maintains are confined to state-of-the-art materials and core source documents needed by analysts in preparing responses; bibliographies, indexes, catalogues, and references to outside documentation and sources; past and present AID project documentation; and copies of response packages developed by analysts catalogued in a format for easy retrieval and use in preparing further materials.

There are three main groups or categories of information sources which DIU utilizes. These main categories may be summarized as:

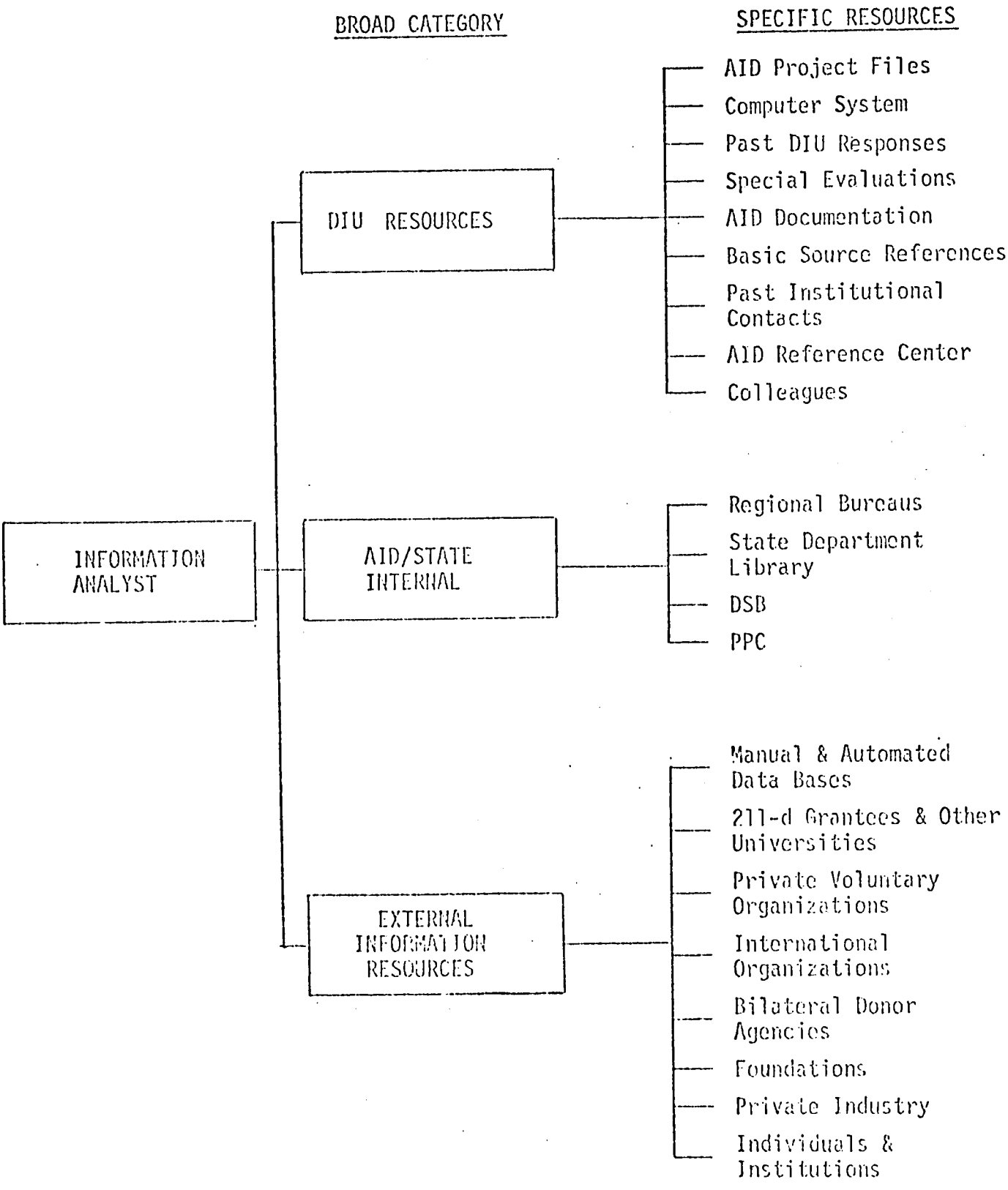
- DIU Resources
- AID/State Resources
- External Information Resources

These sources and their relationship to the Information analyst are summarized in Figure III-1. The information user may also directly access AID/State and External Information Resources, or go through the DIU analyst.

It is obvious that no single source or strategy is appropriate to all response packages. The job of the analyst is to creatively define a search strategy based on the problems/issues/needs of the user, and to obtain the information which meets those needs.

Figure III-1

SUMMARY OF MAJOR INFORMATION RESOURCES AVAILABLE TO THE DIU ANALYST



B. DIU IN-HOUSE RESOURCES

The major in-house information resources which DIU maintains are:

1. AID Project Files
2. Computer System
3. Past DIU Responses
4. Special Evaluations
5. AID Documentation
6. Basic Source References
7. Past Institutional Contacts

1. AID PROJECT FILES

These files contain relevant project documentation for past and ongoing AID projects. The files vary in their quality and comprehensiveness. Some include a complete file of AID documentation for development and approval of projects (PIDs, PPs, and earlier terms such as IRRs, CAPs, etc.), feasibility studies, evaluations, correspondence, etc. Others are less complete. DIU is continually adding to these files to improve their comprehensiveness and utility to the analysts.

The AID project files are reviewed to find salient portions of projects which the search has identified as potentially being relevant.

2. COMPUTER SYSTEM

DIU's computer system has terminals which are linked to AID's main computer facility. The computer system is used by the analyst to sort through the inventory of AID past and present projects in order to identify projects which are related to any subject area.

There are four separate and sometimes overlapping files or inventories which are accessible through the computer terminals. The files vary somewhat in their content and means of access. The computer search is an important step in compiling a response package, and is undertaken only after an initial identification of the project problems, issues, outputs, etc., and the definition of key words for the search. Projects in two of the files (TEXT and BREF) are accessible using different combinations of "key words." DIU's key word index includes some 2000 descriptors or classifiers for accessing projects, and each project has been coded according to these key words. Projects in the PAIS History and PBAR files are not directly accessible by key words, but the project titles which these files produce can be scanned, and the "old" technical codes can be used with the PAIS History file.

Because of the importance of the computer system and the need to learn to effectively retrieve information from the data bases, an appendix to this manual describes these procedures in greater detail. This section summarizes the four main files.

PAISHIST

The PAISHIST (Project Accounting Information System History) file includes all AID completed projects and all AID active projects, except those which became active in the last year. The printout for projects in this file includes the project number, project title, beginning and ending dates, country name, project expenditures, and project obligations.

PBAR

The PBAR (Planning, Budgeting, Accounting, Reporting) file includes all projects which were still active in 1974, and all proposed projects since that date identified as PIDs in subsequent annual budget submissions as of FY 1977. The printout gives the same information as the PAISHIST file. In addition, it monitors at a gross level, accounting and financial data and key events over the project life cycle. Projects may be accessed through the purpose and technical codes or by searching with a scan command for words in the title. The PBAR file includes projects at all phases of the planning and implementation process.

TEXT

The TEXT file includes some projects from PBAR, as well as key projects from PAISHIST. The project printouts include an abstracted statement of goal, purpose, outputs, problems, strategy, and summary, as well as key word descriptors for retrieval purposes.

The TEXT file lacks project date, financial and project status information.

BREF

The Bibliographic Reference (BREF) File generally contains the same projects that the TEXT file does. The title "Bibliographic Reference" is self-explanatory. This file references the contents of the physical project files. Such contents include Project Papers, names of contractors, evaluations, etc. The BREF serves as a major source of AID evaluation data.

3. PAST DIU RESPONSES

Past response packages developed by DIU maintained in files in the central reception area. The responses are arranged alphabetically by country or by requesting office. In addition, there is a card file and list which summarizes all past responses and can be used for quickly overviewing the completed packages. Data on completed packages of various types is put into the computer data base for more rapid access.

4. SPECIAL EVALUATIONS

Abstracts have been made of AID "special evaluations"--those which have been identified by PPC as being of inherent interest. These include major evaluations of projects in a single country, evaluations on a regional basis, and sectoral evaluations. The special evaluations are summarized in a computer printout form and longer abstracts are maintained in a notebook.

5. AID DOCUMENTATION

This category consists of current and past basic AID documentation and the bibliographies and indexes to AID documents. Basic documentation includes DAPs (Development Assistance Papers--the basic strategy in each country), certain volumes of the 1973 Spring Reviews, heavily used evaluations and surveys, and similar basic documents. The current ABS (Annual Budget Submissions) and available PIDs (Project Identification Document) are alphabetically kept in file drawers by country. New documents are added as they become available.

6. BASIC SOURCE REFERENCES

Basic source references include bibliographies, handbooks, and other documentation to identify appropriate sources of information and project materials. The basic source reference shelves describe the information resources available through 211-D universities, institutions, private industry sources, private voluntary agencies, other donor agencies, international bodies, etc.

Typical of the materials in this section is Project Profiles, published by the Clearing House on Development Communications. The loose leaf handbook describes communications projects in the areas of agriculture, nutrition, population, health, education and human resources, and integrated rural development. The handbook includes bibliographies and lists of other sources of information.

The Basic Source Reference materials are a rich and varied depository of "where-to-go" information. As new material is identified and collected, it should first be brought to the attention of other analysts through the weekly meetings or other means.

7. PAST INSTITUTIONAL CONTACTS

Located in the same area is a black file box of institutional contacts. These 3 x 5 cards provide names, phone numbers, statements of usefulness, response times, etc., for institutional contacts. The black box summarizes the experience of the analysts in dealing with a particular institutional contact. It is a worthy source of information for identifying specifically with whom to talk, how long an institution takes to respond, etc.

The usefulness of this resource is dependent on the extent to which analysts maintain and update this file with their own experience. Following each information package, the analyst should update the "black box."

8. ARC

The ARC (AID Reference Center) is one of the most frequently used and valuable sources in the preparation of any information package, and is one of the first places to go for information. The AID Reference Center houses project information, general technical literature, contractor reports, other donor studies and reports, bibliographies, evaluations, and miscellaneous materials.

The ARC is located in the Main State Office Building on the ground floor of the 21st Street entrance in room 1656.

The quality of the collection varies. For some searches, the ARC may provide the bulk of materials which are necessary. For others, it will be less useful.

A good place to begin is with the general card catalogues, interfiled according to subject, author, and title, then country. Ask the staff to assist you if the card catalogues do not turn up the needed materials. You must ask for all materials you wish to see; you do not have access to the stacks.

ARC maintains a fairly complete collection of project files, but they are not catalogued. The ARC project file collection has some of the same limitations as DI's project files: incompleteness caused by an imperfect form of distribution of project documents, and unavailability of copies of many of the older projects.

Evaluations and contractor reports covering a wide variety of topics are available and catalogued. Certain World Bank evaluations are also kept by ARC for DIU/AID use as are some FAO (Food and Agricultural Organization) documentation and bibliographies. DAPs are available but not catalogued, and those which are not classified can be seen. ARC maintains some close-to-recent IBRD studies. Very recent studies are available thorough IIA/IO.

9. COLLEAGUES

Finally, the most important in-house resource are the men and women whose experience and dedication to DI's mission makes them an excellent source of both general and specific information. The DIU operating system which is a collegial one, with analysts interacting informally as needed, encourages the sharing of experience and insights.

C. AID/STATE INTERNAL

The second major category of information resources available to the analyst are those available to other parts of AID and the State Department. The primary resources are:

1. Regional Bureaus
2. State Department Library
3. DSB
4. PPC

1. REGIONAL BUREAUS

Each of the four geographically organized regional bureaus has at least three types of individuals useful to the analyst.

The first type of individual is the country desk officer, whose name is listed in the phone book. You will contact the desk officer when dealing with a Quick Response to determine PID status and to verify PID approval, as well as to obtain issues papers and other back-up materials not available with the PIDs. Your need to contact the desk officer for other types of responses will depend on that response. Desk officers are seldom subject experts and may not be helpful concerning the technical aspects of the package you are preparing; however, desk officers can be of value in providing contextual, historical, or qualifying information. Working with the desk officers is further discussed in Chapter V.

The second type of valuable individual to the analyst are the subject experts in each of the bureaus. Each bureau has a staff (generally housed in the project development resources office) with specialized subject expertise. The subject experts may not be as up-to-date as the DSB experts (whose job it is to monitor research), but the bureau experts will generally have a better understanding of the project. They often assist the mission with preliminary project planning, feasibility studies, and even writing the PIDs and PPs. These individuals can provide you with insightful statements of the key issues and problems the project faces. Find out who these people are by asking the desk officer or reviewing the phone book.

The third type of individual is the evaluation officer for each bureau. Examine the evaluative materials you have access to before talking to the evaluation officers. This way you can make better use of the information they provide.

2. STATE DEPARTMENT LIBRARY

The State Department maintains an extensive collection of political/social/economic information on each country which is primarily useful to the analyst for general background purpose, and not generally for a specific search.

3. DSB

The Development Support Bureau (DSB) is AID's research and development arm, and a "must" source for most of the in-depth searches.

DSB sponsors basic and applied research in areas bearing on development. Much of this research is carried out by universities and private institutions under 211-d grants. Certain universities and institutions are funded to keep with the state-of-the-art in various development topics.

DSB publishes a host of handbooks, bibliographies, and reference sources which are disseminated both in AID and to a wider audience including host country personnel, other international organizations, professors, consulting organizations, and others with a role in development. Many of DSB's core documents are among the Basic Source References in DIU.

Two specific aspects of DSB are highly useful. First, it houses experts in virtually every subject area of interest to AID. These experts, who can be located using the phone book, are available to assist the analyst in interpreting/defining the problem, suggesting inside and outside sources of information, reviewing packages, etc.

Second, the Technical Assistance Information Center is useful. The mission of this unit is to develop, publish, and promulgate state-of-the-art technical information based on their own research and that of their grantees, publish and distribute bibliographies and handbooks and serve as a library for technical material.

4. PPC

The PPC role of most interest to analysts is their role of encouraging, assisting, and disseminating evaluation materials. Use this resource only after you have examined the easily available evaluation materials within DIU. PPC evaluation staff will assist you in tracking down additional or hard to find evaluation materials.

D. EXTERNAL INFORMATION SOURCES

External information sources can be divided into three general categories: data bases, institutions, and knowledgeable individuals.

1. DATA BASES

There are several dozen large, comprehensive data bases maintained either by the federal government, international organizations, or by private or public institutions. Those of greatest applicability to DIU include AGRICOLA (U.S. Department of Agriculture data base on all aspects of agriculture, crops, production, soils, etc.); ERIC (an extensive data base of social policy and educational materials); CARIS (an FAO data base on food, agriculture, fisheries, etc.), PLATO (population and health) and STAR (Scientific and Technical Aerospace Reports). Other data bases are maintained by the University of Arizona Land Institute (for a charge), the National Library of Medicine (MEDLARS), and other sources.

DIU now subscribes to the SDC and Lockheed Information Systems. These two services employ data base management systems called "Orbit" and "Dialog" respectively. They provide access to AGRICOLA, CARIS, and many other data bases. The specific data bases provide bibliographic references, while some even contain abstracts for each citation. DIU now has direct access to these services.

2. INSTITUTIONS

A large number of institutions are available to the DIU analyst. Some of these, such as the 211-d universities and some of the private voluntary organizations, are partially funded by AID and have an obligation to assist by providing information. However, they can take six to eight (or more) weeks to respond. You can get some idea of the response time, as well as the names of individual contacts, from the card file of institutional sources. For your future benefit and that of the other analysts, update the card file with your own experience after each institutional contact.

Other institutions include international organizations (such as The World Bank, FAO, UNDP, WHO, and UNESCO; bilateral donor organizations (such as the Canadian International Development Agency); private voluntary organizations (such as VITA and IVS); and foundations such as Ford, Carnegie, and Spencer). Private industry sources may be appropriate for obtaining information when the project has a major equipment or technology component which U.S. industry provides.

3. KNOWLEDGEABLE INDIVIDUALS

Based on your own knowledge of people, or through letter or telephone contact, you will identify individuals who are knowledgeable about the problems of the specific project. Knowledgeable individuals are good sources for finding out who has worked in the field on similar topics and for reviewing the packages, if such review is desired.

Chapter 4

Preparing a Response

A. THE EFFECTIVE ANALYST

The effective DIU analyst is both a creative problem-solver and a good manager.

As a problem-solver, the analyst puts her/himself in the frame of reference of the information user and defines the issues/problems/concerns behind the search request. It is unusual to receive a coherent and complete problem statement from the user; often, the real problem is only hinted at or implied with incomplete problem statements. The analyst, operating from a base of objectivity and access to numerous other project examples, is in a good position to formulate a problem statement or help the user better define the total dimensions of his problem.

The search strategy is developed from the problem statement and is intended to efficiently identify, analyze, and package the information which will meet the needs of the requestor. The finished information packages are the visible end-products of what is essentially a creative problem-solving process which provides information which adequately addresses the designer's issue/problem/concern.

As a good manager, the analyst develops and executes efficient search strategies to produce the appropriate response package on schedule. The analyst is responsible for planning and managing his/her hourly, daily, and weekly schedules as required to meet deadline targets. Practical planning and scheduling tools which help manage the various activities required to produce packages are illustrated in subsequent sections of this chapter.

In addition to being a good problem-solver and manager, the effective DIU analyst employs three personal characteristics. The effective analyst is:

- inquisitive--asks various questions to better define and solve the problem/issue at hand, and continues to explore the issues with various people and sources who are in a position to provide assistance;

- acquisitive--aggressively reaches out to acquire the needed information from the most appropriate sources;

- informative--shares the knowledge gained and insights into how to make the process more effective with peers and superiors, and helps others who encounter problem situations with which the analyst is experienced.

B. DEFINING THE PROBLEM TO BE SOLVED

The most important part of solving a problem is to first define it. This part of the task is one the analyst may consider the most frustrating and difficult. Research and experience shows that a primary difficulty in resolving problems is due to the tendency to spend a minimum of effort on defining the problem in order to get on to the important matter of solving it. Solving the information problem is more comfortable generally. It deals with tangible activities and results like conducting computer searches, reviewing copies of projects, etc.; whereas problem definition means that we have to match our thinking against the project designer (who, after all, is the expert). But experts are not necessarily good problem-definers; they are as narrowly constrained by an expertise as the analyst might feel by a lack of expertise.

As uncomfortable as the problem definition stage may be it is the most essential task. A relatively small amount of time and effort invested in carefully isolating and defining the problem is extremely valuable both in illuminating alternative solutions, and in ensuring that you do not waste a great deal of time and effort only to find that the results bear little relationship to the designer's original problem.

The Boundaries of the Problem

The greatest operational difficulty in problem solving is the tendency to define it too narrowly through the imposition of constraints, whether conscious or unconscious.

Problem solving is a funneling and focusing process, beginning with the broad and successively moving to the more specific problem definitions, and at each stage postulating alternative possible solutions. Project design documentation (such as PIDs) are not always explicit and rigorous about defining the problem. Often the designer leaps to the solution, or does not understand the problem well enough to state one. Or perhaps what is given as a problem statement is the one which is most easily expressed, rather than the one which is most important. It is the analyst's job to infer what the problem is, from the project documentation and other sources. The documentation is loaded with clues, and in detective-like fashion, the analyst must piece together and interpret the clues to come up with plausible problem statements.

Consider, for example, project documentation which describes a livestock effort. The documentation describes high disease rates among cattle, low weight, high calf mortality, overgrazing, etc. If your interpretation of the main thrust of the project is "improve the quality of cattle herd in Sineestan," the potential solution alternatives would include range management, veterinary programs, nutritional supplements, herder education, etc. But, if your detective work concludes the real problem is one of national human malnutrition and you state the main project thrust as "increase the nutritional intake of the residents of Sineestan," the range of potential solutions broadens to include nutritional education, water and sanitation programs, high-protein food grains, etc.

The analytic process of beginning with broader problem statements and narrowing down is consistent with how the Logical Framework assists us in articulating problems and solutions. Think for a moment about the relationship between a problem and a solution. A problem is a statement

of conditions that require some resolution. A solution describes the conditions that will indicate the problem has been adequately resolved. The narrative statements of the Logical Framework, and the Objectively Verifiable Indicators--particularly at the purpose and goal level--are essentially the "flip-side" of a problem, or a description of a potential solution as shown in Figure IV-1.

Returning to the example, if we interpret the project purpose as "improve the quality of cattle herds in Sineestan," that purpose is capable of logically contributing to two or more alternate goals, as shown in Figure IV-2. It is only through focusing at the broader problem level (the language we talk about in "goal" statements), that we can best assess the various alternatives for achieving that objective. If the real intent of the cattle project is on increasing the nutritional intake of the citizens of Sineestan, we have a certain set of alternatives. But, if the real intent is, for example, on "upgrading local economy," we have quite a different set of alternative solutions to the problem. These situations are shown in Figure IV-3. Obviously, the place to begin is by interpreting the problem broadly and narrowing down.

The real challenge of problem solving is to smoke out the main intent from the documentation you have to work with, such as PIDs. The main intent will often be hidden or buried because of the author's preoccupation with the means of solution. But, the very fact that he has focused on the <u>solution</u> (goal, purpose, and outputs) rather than on the <u>problem</u> (the conditions which create the need for the goal, purpose, and outputs) means that the designer has probably prematurely limited his thinking concerning alternatives.

There is a natural tendency in problem solving organizations such as AID to be "solution-based," to put forward what one has experience with and is comfortable with. The solution which project designers propose will often tend to resemble solutions they have seen or used in other circumstances. Expertise causes its own form of narrowness, and results in ignoring alternatives which are not immediately apparent.

FIGURE IV-1

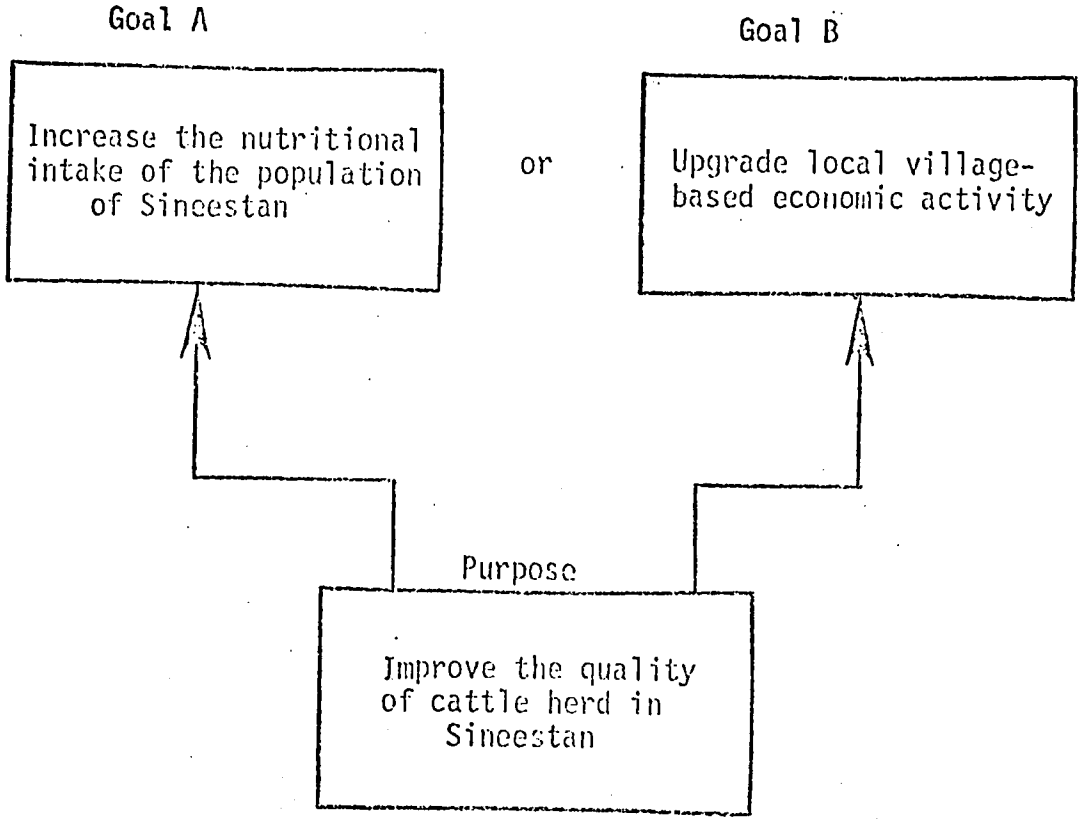
LOGICAL FRAMEWORK NARRATIVE STATEMENTS
ARE THE INVERSE OF A PROBLEM STATEMENT

POTENTIAL SOLUTION (LOGFRAME)

PROBLEM	NARRATIVE STATEMENT	OBJECTIVELY VERIFIABLE INDICATORS
Poor quality of cattle herds.	Improved quality of cattle herds.	1. Incidence of foot and mouth disease less than 20% of herd. 2. Average carcass weight increases by 10 kg. annually. 3. ETC.
OR	OR	OR
Human malnutrition in Sineestan.	Increase nutritional intake of residents in Sineestan.	1. Each person has average daily intake of 2000 calories. 2. Children under 10 years of age get 40 grams of protein daily. 3. ETC.

FIGURE IV-2

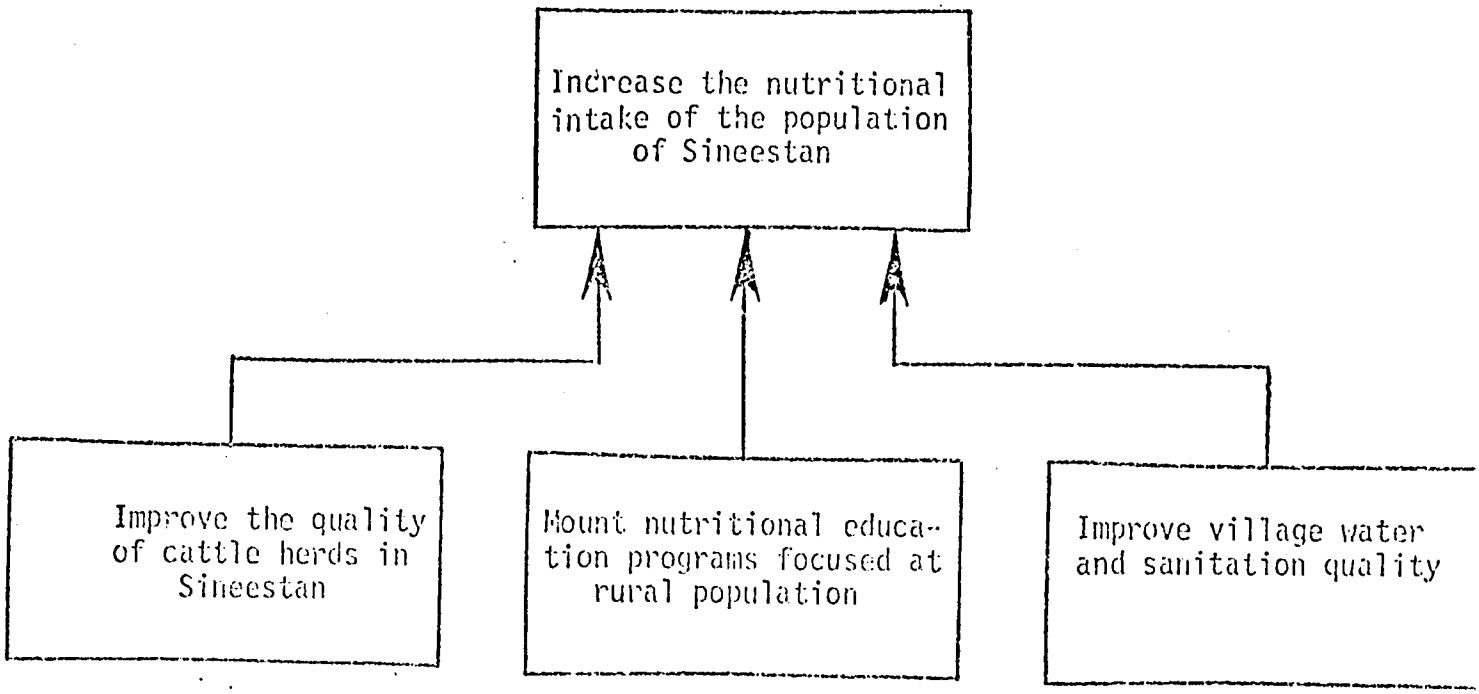
EXPLANATION OF PROJECT PURPOSE

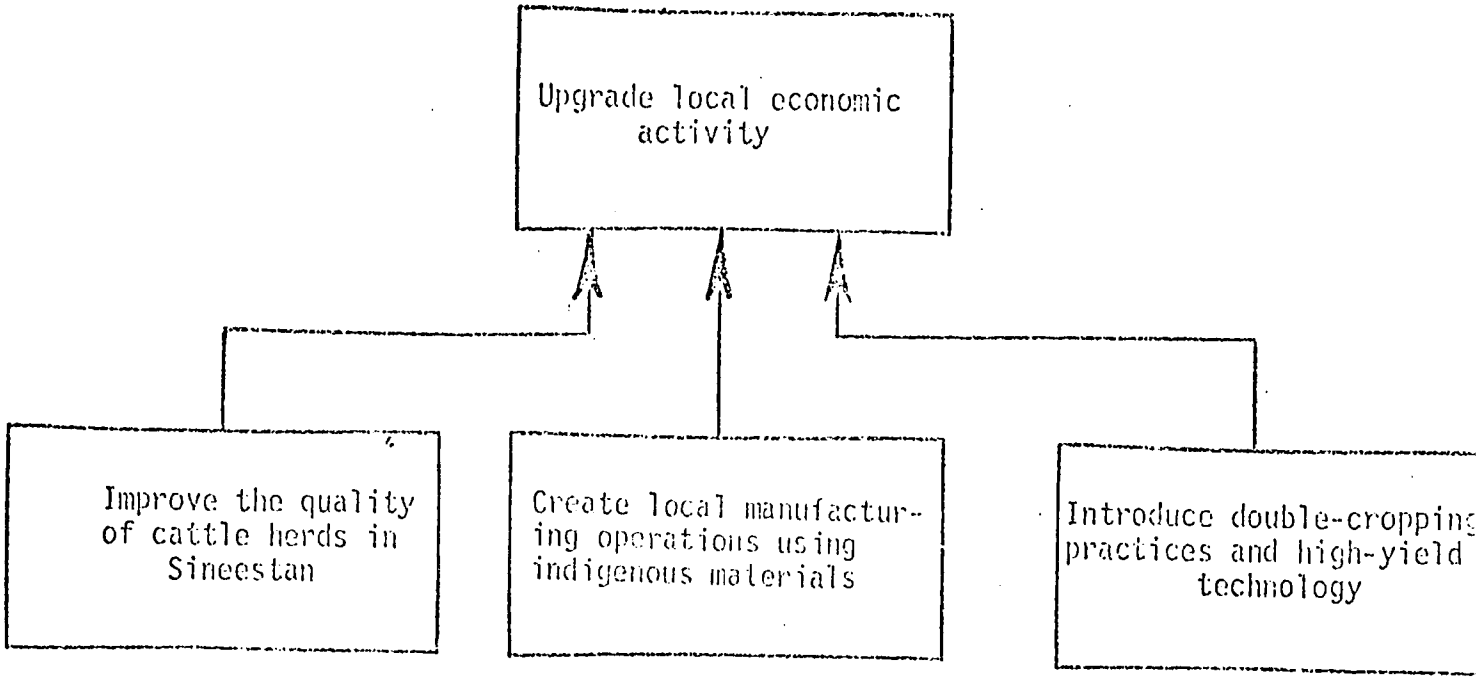


A PROJECT PURPOSE CAN SUPPORT ALTERNATIVE GOALS. DEFINITION OF THE PROBLEM AND MEANS OF SOLUTION AT TOO LOW A LEVEL MEANS WE MAY MISS THE MAIN PROJECT INTENT.

FIGURE IV-3

DEFINING PROBLEM AND PROJECT INTENT





WHEN THE MAJOR PROBLEM AND MAIN PROJECT INTENT ARE CLARIFIED, WE CAN DEFINE ALTERNATIVE METHODS OF GETTING THERE.

One of the major strengths of the DIU analyst is her/his orientation as a creative generalist, and as an expert/specialist. As the analyst encounters more and varied project situations, the mental inventory of alternative possible solutions will increase. The analyst becomes more adept at suggesting a borader range of laternative approaches which may work than does the expert specialist who prematurely focuses on just one solution.

Figure IV-4 is a checklist to assist in problem identification. It consists of a set of questions to stimulate your thinking, and help to focus on the real problem. In situations when the problem requires better definition, go through the checklist and answer--in writing--the questions. A much clearer problem statement will emerge.

FIGURE IV-4

CHECKLIST FOR PROBLEM IDENTIFICATION

1. What are the unknowns?
2. What are the knowns?
3. What is the data which says these are the unknowns and knowns?
4. What is the question which, if answered, would define what the problem is?
5. Is it possible to answer that question?
6. Have you seen this problem before?
7. Have you seen the same problem in a slightly different form? A similar problem in a different form? A different problem in the same form?
8. Try to think of a familiar problem having the same or similar unknown elements.
9. Think of a problem related to this one which you have defined before. Where is it? How can you use its results on this problem?
10. What would you have to introduce or change in order to make the problem you are familiar with fit this situation?
11. How can you restate the problem?
12. How can you restate it still differently?
13. If you cannot define the problem, define all the things that are <u>not</u> the problem. What is left over, or what you have not defined, is the problem you could not define.
14. If you cannot define the problem, try first to define some related or similar problem.
15. Can you define a more general or broader problem? A more specific or narrower problem? An analagous problem?
16. Can you define part of the problem? Which part can you <u>not</u> define? Why?
17. What does the data tell you the problem is?
18. What does the <u>lack</u> of data suggest the problem is?
19. What is the missing set of data which, if available, would tell you what the problem is?
20. Have you taken into account all the clues as to what the problem is? Which clues have you missed?

C. PLANNING AND SCHEDULING RESPONSE PREPARATION

The search undertaken by the analyst can be considered as a project. A project is a set of planned and managed activities directed towards achieving specific objectives on schedule and within the time allocated.

The Logical Framework is a tool which AID project teams use extensively for planning and managing development projects. This same tool can and should be used by the analyst in organizing his own response.

By way of summary, the Logical Framework postulates a hierarchy of objectives of the form:

if inputs, then outputs;
if outputs, then purpose;
if purpose, then goal.

Inputs are the activities undertaken and resources required. Outputs are the specific results expected to occur from the management of input activities. Purpose is the rationale for undertaking the project, and the result which is desired and expected to occur from the production of the outputs. Goal is the higher level objective to which achievement of the purpose will contribute.

The analyst will find the Logical Framework a useful means of planning and organizing a response package. Inputs are the specific activities undertaken and required to conduct the search. Outputs are the specific contents of the information package which will be sent. Purpose describes the rationale for the search--satisfying information needs of the user. The goal describes the success of the project for which the information package is being developed.

Organizing a Logical Framework for the search itself is a strongly recommended first step in producing a response package. This activity will help to focus and organize analytic effort and improve the efficiency of the response package preparation.

Figure IV-5 is an example of how a Logical Framework might be developed in response to a direct query. The query was from the design team in Sineestan (a mythical Asian country) and requested "information related to commercial growing of pumpkins."

In this case, the analyst's assessment of what is required to meet the design team's needs was summarized to be the three outputs--a summary of AID project experience, a list of other sources, and some state-of-the-art "how to" articles.

The purpose statement--the hoped for results of the analyst's effort--is that the package is of high quality and meets the needs of the design team. The end of project status indicators appropriately include both a quality measurement, as well as a time target (the package finished by December 15--a deadline stated in the request).

For each output, the analyst then listed the necessary activities required to produce each output. These are the input activities shown on the Log-frame. Input activities are the basis for planning and scheduling the search. Two important distinctions concerning time are necessary before discussing <u>when</u> to schedule and <u>in what order</u> to do the various activities.

1. <u>Elapsed</u> versus <u>Absolute</u> Activity Time

There is an important difference in the number of hours or days of effort of the analyst which is required to complete a certain activity, and the time when that activity will be completed. For example, four hours could be required to write a summary analysis and cover letter. However, it may take another day and a half until the typing is completed because the secretary is busy. The <u>absolute</u> time required is only four hours, but the <u>elapsed</u> time (the time we must consider in project planning) is two days. Similarly, it may require only a day to request materials from knowledgeable institutions; but those institutions may need

FIGURE IV-5

EXAMPLE LOGFRAME FOR ORGANIZING A SEARCH

GOAL: Successful commercial pumpkin growing operations in Sineestan.	MEASURES OF GOAL ACHIEVEMENT: 1. Project achieves the objectives and targets included in the project paper and operation plans. 2. Commercial pumpkin growing contributes to other important social and economic objectives in Sineestan.
PURPOSE: The information package compiled in response to the query is of high quality and meets the needs of the Sineestan project design team.	END OF PROJECT STATUS: 1. Package is completed and sent within five(5) weeks (by December 15). 2. Information package meets DI internal quality standards. 3. In follow-up cable, design team indicates utility of the package in helping them to make decisions concerning the project.
OUTPUTS: 1. AID project experience regarding pumpkin growing in Asia is extracted from the data bank, summarized, and presented. 2. Other sources of information provided to the project team which they can contact directly. 3. State-of-the-art literature package regarding pumpkin operations in Asia collected and prepared.	1a. Some 5 to 10 similar projects identified and summarized based on a computer and project file search. 1b. At least two relevant evaluations identified and included in package. 1c. Experience is summarized in a cover letter. 2a. The names and addresses of at least three other institutions with Asian pumpkin experience or expertise provided to the design team. 3a. Package includes at least two guidance or "how-to" articles concerning the commercial pumpkin growing operations. 3b. Package contains information on other aspects of the project which are likely to be important--such as marketing and distribution.
INPUTS: 1a. Call desk officer to get context info. 1b. Formulate search strategy--select terms. 1c. Have other analysts comment on strategy. 1d. Do computer search. 1e. Go to project files. 1f. Do analysis of AID project experience. 2a. Check ARC. 2b. Check reference shelves for institutions. 2c. Call or write institutions. 3a. Call TAB for info. 3b. Do first draft of cover letter. 3c. Final draft of cover letter. 3d. Send package to Sineestan	

three weeks to respond. The absolute time is only a day; the elapsed time--the time that really matters to the overall project--is three weeks. Activities with a large absolute time, even if the elapsed time is small, must be undertaken early in the project.

2. Scheduling the Work

Having specified the results which the analyst requires (the set of outputs) and the set of activities required (the set of inputs), the next step is to schedule the project.

Scheduling is a three-part task. First, establish a logical sequence or order in which the input activities can be conducted. Second, estimate the absolute time required for each activity and for the entire search project. If the time required for the entire search is greater than the time allowed (a time limit specified by the user), you must reduce the time required by either (a) modifying the sequence of activities, or (b) finding a way to reduce the absolute time of each activity. Third, schedule what you will do when--which activites will be done first, second, etc. The planning steps and steps of scheduling each activity are separate.

There are two planning and scheduling tools which assist the analyst in planning and managing the search effort. These are bar charts and networks.

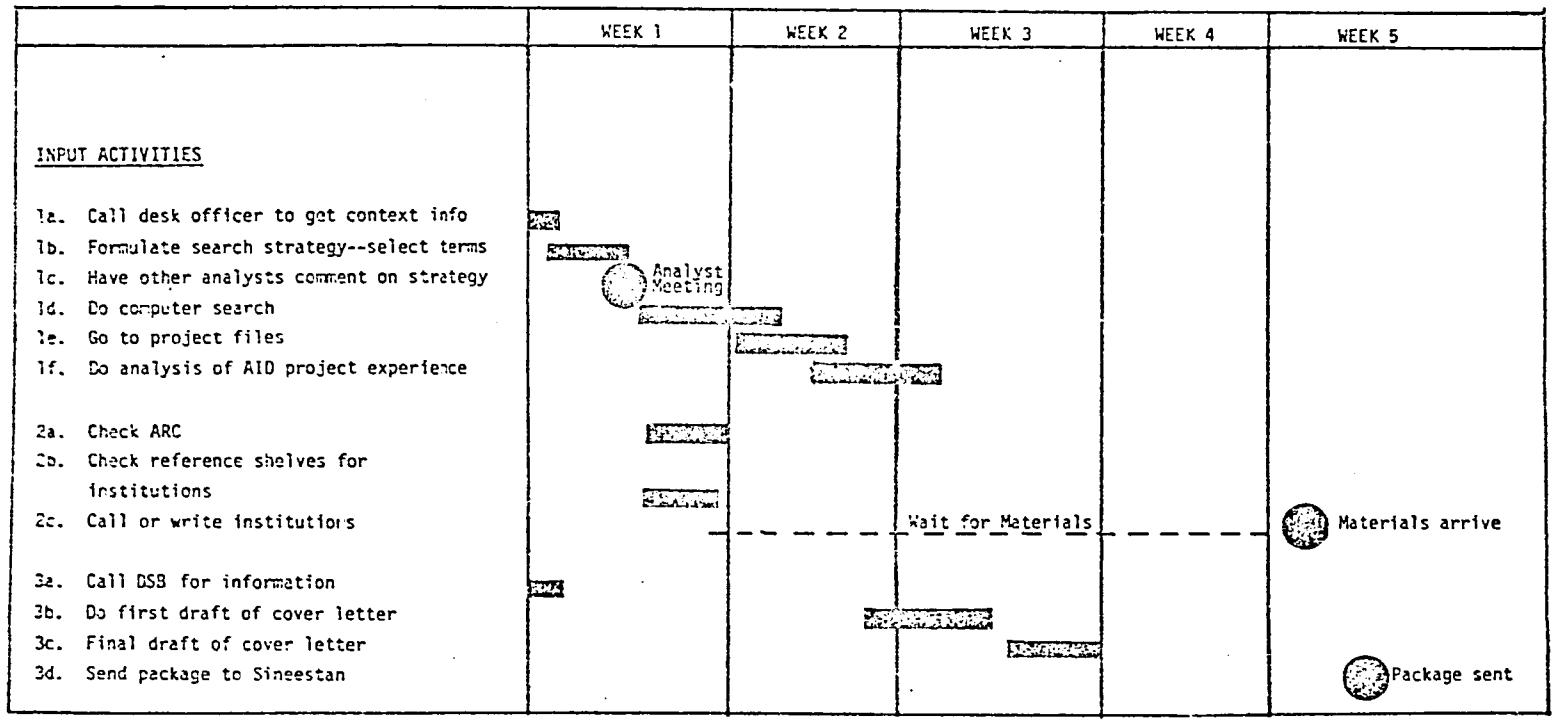
3. Bar Charts

Figure IV-6 illustrates a bar chart schedule for completing the various input activities to produce the Sineestan pumpkin package. The length of the lines indicates the elapsed time, or the total time required to complete that activity. The circles indicate some of the "key events" which will occur during the project.

FIGURE IV-6

BAR CHART SCHEDULE FOR ACTIVITY COMPLETION

SINEESTAN PROJECT



Bar charts are a useful scheduling tool, but they have one limitation: bar charts do not help the analyst identify "long-lead activities" and decide what needs to be done first. The "long-lead activity" in this project is calling or writing institutions; the absolute time is over three weeks from the time of request until the time of receipt. Thus, this activity is one which should be undertaken early in the search effort.

4. Networks

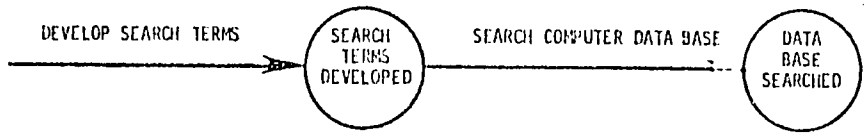
A network is a logical, visual display of project activities and events. Activities, indicated by arrows, are the inputs required to produce outputs. Activities take time and consume resources. Events, indicated by the circles, measure points in time and signal the completion of certain activities or the beginning of others. Events consume no resources. Figure IV-7 illustrates the three basic questions to be asked in the construction of a network.

The Sineestan Pumpkin network is shown in Figure IV-8. The network illustrates a sequence of activities and events which is logically correct. It does not necessarily indicate the sequence in which project activities will be conducted. For example, at the "Begin" event, there are four different activities which can logically be done first. However, it is obvious that only one can be initiated first.

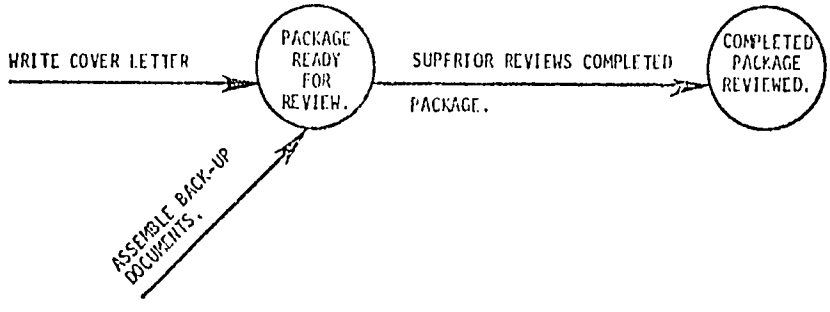
Networks help to identify the order in which we should undertake activities to minimize total project duration. The numbers under each activity description indicate the elapsed time in days for completion of that activity. Adding up the longest path of activities to get to any event illustrates the earliest date any event will occur. (For example, the event of "terms selected" occurs on day five.)

By adding the activities along any path in the network from beginning to end, and taking the longest, the total duration of the project is defined.

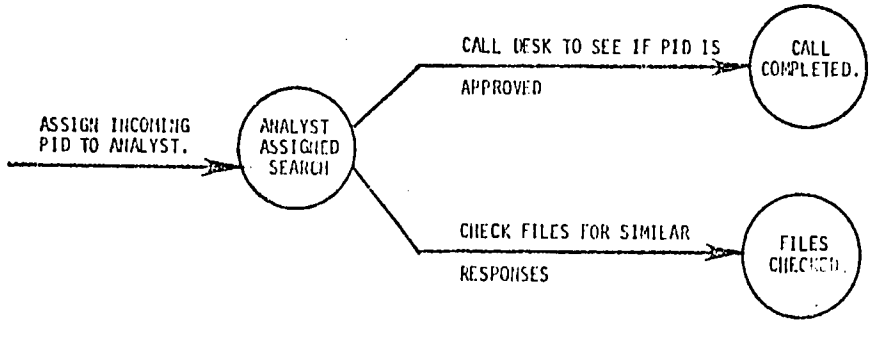
FIGURE IV-7
THREE BASIC QUESTIONS IN CONSTRUCTING LOGICAL NETWORKS



1. WHICH ACTIVITIES MUST PRECEDE OTHER ACTIVITIES? (Search terms must be developed before the analyst searches the data base.)



2. WHICH ACTIVITIES MUST FOLLOW OTHER ACTIVITIES? (Superior can review the completed package only after cover letter is written and back-up documents assembled.)

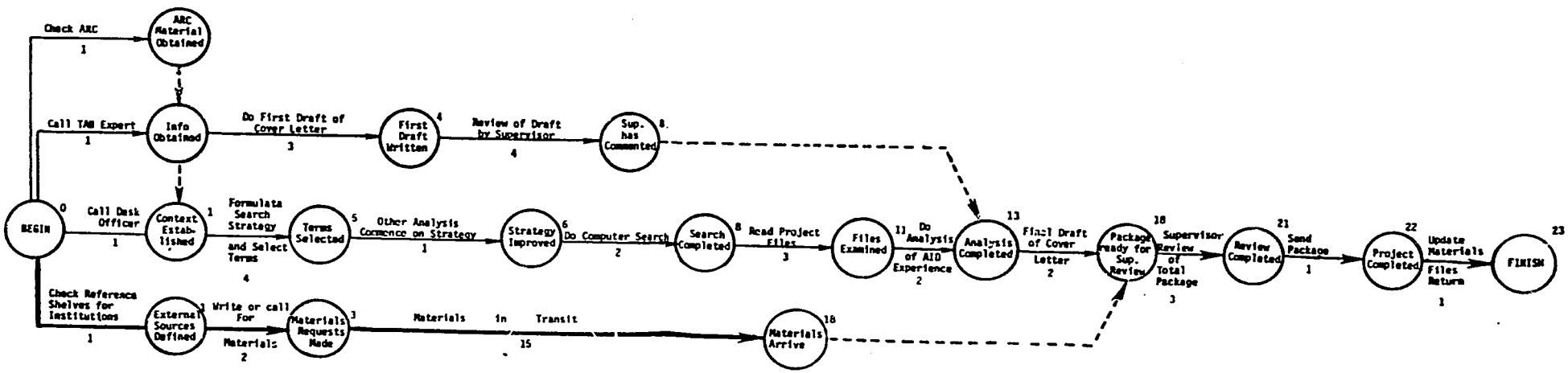


3. WHICH ACTIVITIES ARE INDEPENDENT OF EACH OTHER? (After analyst is assigned search, she/he can either call desk or check files.)

FIGURE IV-8

EXAMPLE NETWORK FOR

SINEESTAN PUMPKIN RESPONSE PACKAGE



In the example, the longest chain is 23, which defines the "critical path." The "critical path" defines the minimum project duration and identifies the activities to concentrate on in order to complete the project as quickly as possible.

In this example, the longest elapsed time for any item on the network is "Materials in Transit," which takes 15 days. Thus, in actually scheduling the work, the analyst would want to begin with the bottom track of activities--checking reference shelves for institutions and writing or calling for materials before, example, checking ARC. This would help shorten the project. If time is not critical, that is, if the projected "finish" date is much earlier than the date needed by the user, there is more discretion concerning the sequence of activities.

Chapter 5

Compilation of Response Packages

A. QUALITY STANDARDS FOR PACKAGES

How good should the package be? How good is good enough? How far should the analyst go? When can the analyst stop? How many projects should be included? How many external references?

The analyst must continually address these and related questions. The key difficulty in compiling a response package is to determine what set of information will meet the project designer's needs. The less specifically those needs have been stated by the user or interpreted by the analyst, the more difficult it is to answer these questions.

The greater the dialogue with the user, the better the analyst can answer the basic question of "how good is good enough?". For tailored and simple responses, there is greater specificity in the request. If it is feasible, the analyst should pin down vague information requests more specifically through a memo or telephone query asking for more clarification.

Procedures for quick response packages are described in detail. Development of other packages follows the same basic principles, but with variations appropriate to that type of package.

B. QUICK RESPONSE PACKAGES

The quick response information package is intended to provide the project designer with:

- a summary description of ongoing and past related AID projects
- identification of the key issues and problems the project may encounter based on the analyst's analysis of AID project experience
- a description of other relevant information sources the designer could go to directly
- a brief bibliography generated from SDC/Lockheed and ARC
- an offer to provide additional assistance along more specific lines which the designer may request.

The quick response provides a rapid "front-end" set of materials and encourages a more explicit mission query. The intent of the quick response is not to provide all the information that could possibly be retrieved on the topic. Rather, the objective is to provide a selection of immediately useful information, stimulate the designer to think more carefully about the information required and to offer further specific information. Subsequent user requests become the basis for providing tailored or simple responses. In many cases, there will be no request from the user.

The emphasis of a quick response is on speed, but not at the expense of quality. It takes no longer to prepare and send a thoughtful response package than it does to prepare one of subprofessional quality.

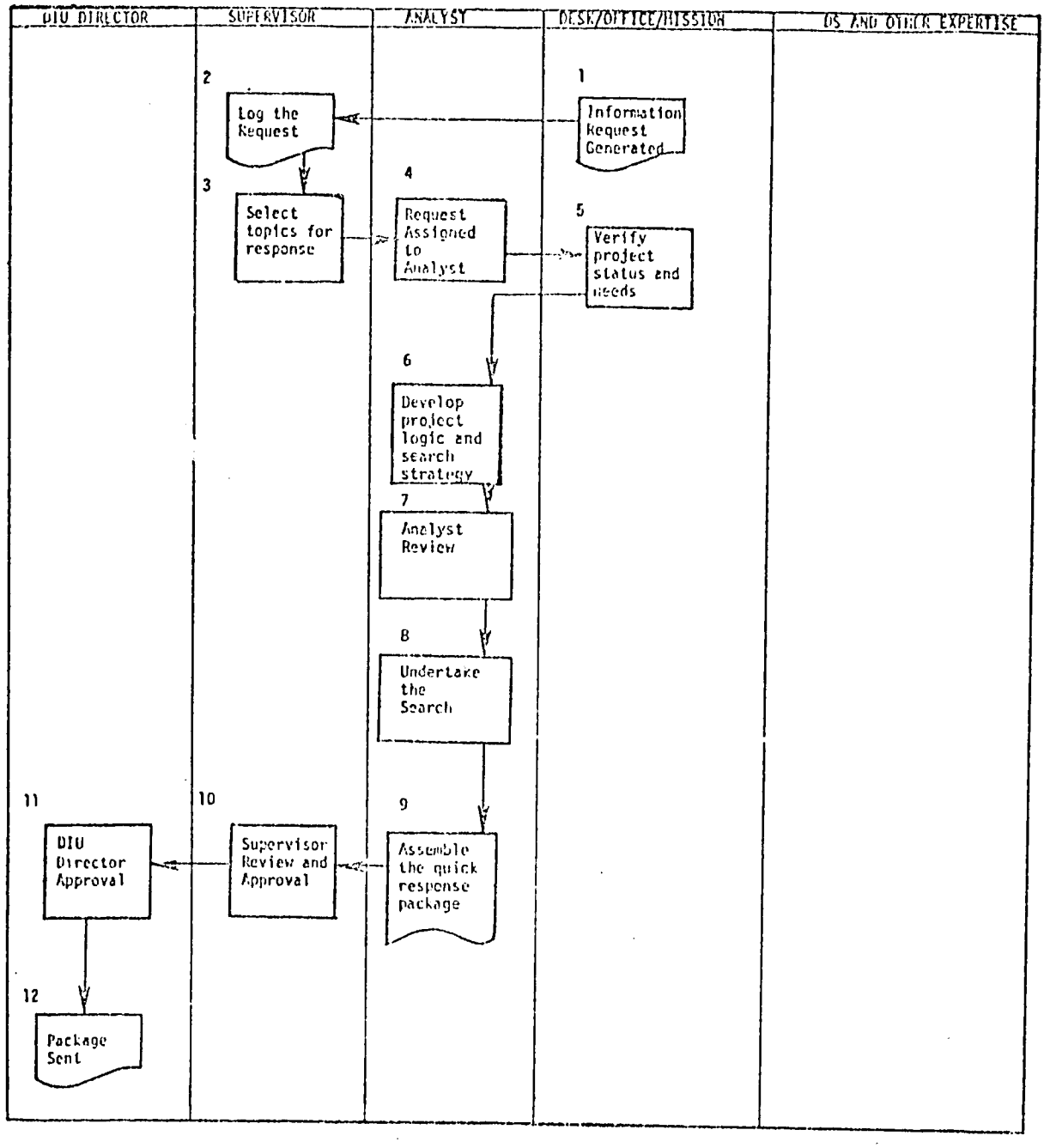
The steps described below are the major steps illustrated in the flow chart in Figure V-1. Boxes in the flow chart refer to processes or activities. The figure with the curved bottom line refers to a document or paper which is produced.

1. Information Request Generated

The major triggering mechanism for quick responses is the AID/W approval of PIDs submitted from an AID field office or written in

FIGURE V-1

PROCEDURES FOR QUICK RESPONSE



Washington. DIU receives master lists of PIDs from each bureau copies of individual PIDs, and the PID approval meeting schedule.

In the future, project designers will increasingly be provided with information packages in the pre-PID stage. In these cases, the quick response package will not be required.

2. Log the Request

The first step taken upon receipt of a PID is to log the project into the DIU monitoring system. The log kept by the supervisor serves as a comprehensive inventory used to facilitate overall DIU management control and to process quick responses expeditiously. It is illustrated in Figure V-2.

3. Select Topics for Response

The supervisor, in conjunction with senior DIU management, selects which requests will be responded to and sets priorities. Priorities are based on subject or sectoral priorities, progress made in setting up various DIU data bases, the extent to which requests are similar. overall office workload, and other factors.

During peak periods, it may not be possible to process all PIDs rapidly, and DIU management ensures that PIDs which are most important and can best be handled receive top priority.

4. Request Assigned to Analyst

The supervisor assigns PIDs for response to analysts based on overall DIU priorities, the number and type of requests requiring processing, the number of ongoing assignments each analyst has, and the interests, abilities, and topic-familiarity of each analyst.

FIGURE V-2

LOG FOR MONITORING QUICK RESPONSE PACKAGES

No.	Subject/Country/PID #	DS/DIU QUICK RESPONSES Quick R. Received	Quick R. Action	Quick R. Sent	Field R. Received	Directed Search Asgnd.	Package Action	Package Sent
79	Land Transfer Alternatives Guatemala 520-0257	8/8/77	Thompson	10/4/77	11/9/77	11/9/77	Thompson	11/18/77
82	Natural Cereal Improvements Cameroon 631-0013	8/16/77	Vignone	9/15/77				
83	Freshwater Fisheries Development Philippines 492-	8/17/77	Wolter	9/9/77	9/29/77	9/29/77	Wolter	12/6/77
84	Desired Births Zaire 660-0072	8/17/77	Vignone	DROPPED				
86	Sierra Fisheries Production Peru 527-0175	8/19/77	Vignone	9/15/77	10/3/77	10/13 77	AI - Vignone	10/13/77
87	Small Farmer Fish Production Central African Empire 676-0007	8/19/77	Wolter	9/1/77				
88	Intersectoral Nutrition Development Haiti 521-0099	8/22/77	Goodhart	9/23/77				
89	Access Roads Panama 525-0192	8/23/77	Goodhart	10/5/77				
91	Environmental Impact Clark University	8/24/77	Goodhart	10/11/77				
92	Fish Seed Multiplication and Distribution Bangladesh 388-0039	8/29/77	Wolter	9/14/77				
93	Cooperative Development Cameroon 631-0014	8/31/77	Wolter	9/20/77				
95	Agriculture Management and Planning Cameroon 631-0008	9/2/77	Vignone	9/28/77				
97	Major Cereals Egypt 263-0070	9/7/77	Vignone	10/11/77				
100	National Planning for Community Development Cameroon 631-0017	9/13/77	Wolter	10/5/77				

At the time an assignment is made, the supervisor and analyst may discuss likely search strategies to be used, the project logic, and other aspects of the search. They may discuss other similar packages which have been developed by DIU, or note which analysts have done similar projects. The analyst sets his own target date for completing the work and this date is to be entered into the "Action Assignment Log" shown in Figure V-3.

5. Verify Project Status and Needs

The analyst's first step is to verify that the PID is still valid, usually through a call to the relevant desk or technical officer. This step ensures there is a need for the quick response package, and obtains additional "context" information.

The analyst explains what he/she is trying to do--provide the project designer with a brief history of AID and other experience in the area and specify the kinds of additional information DI can provide. The tone should be one which shows the analyst is trying to be helpful, and that the analyst will treat special insights and information which he may provide in confidence. The desk officer should be encouraged to provide supplementary information on the project background, special concerns, etc.

Request the names of other persons the desk officer would suggest you speak with, such as technical experts in the bureau or DSB.

Among the specific questions the analyst should get answered are:

a. Has the PID been approved yet? If not, when is the PID review meeting scheduled?

b. Who is likely to be the user of this information package?

c. What recent guidance or discussion cables have been sent concerning this project?

d. Does the Mission now have or plan to have an expert who will be involved in further design of the project?

FIGURE V-3

ACTION ASSIGNMENT LOG

DS/DIU ACTION ASSIGNMENTS

Page 10

T	DI No.	Title	Date Rec'd.	Action	DRAFT				FINAL			Target Sent
					Draft MS	Xerox/ Typed	Super. Review	Revised	Final Typed	Author Check	Signed	
T	49	Rural Savings-Type Institutions USAID/Dominican Republic	2/21/78	Vreeland	3/1			3/27	3/31			
S	50	Project Info for PPC Briefing Reports PPC/PDA, R. Shortledge	2/28/78	Vreeland								
S	51	Project Info on Potable Water and Sanitation DS/Office of Health, J. Thomson	2/26/78	Boissevain	3/10 →							3/21
S	52	Recent Articles or Reports on Agri. Dev. in Nigeria SER/PM/MD, A. Smuggs	2/22/78	Vignone	2/24 →							3/1

e. What do you see as the primary information needs which DIU should provide to assist the project designer?

f. Who in Washington (from the field or otherwise) has a special familiarity with this particular project? (This may include AID/W experts who were sent out to assist in developing the PID.)

g. What do you see as the basic problem the PID is addressing, and what other particular issues are important?

In some cases the project has been cancelled, or the review will be substantially delayed and a response package would not be useful. When a project is cancelled, it is marked "Disapproved" and the search terminates. When it is delayed, it is put in a "Hold" category.

6. Develop Project Logic and Search Strategy

This is a two-step process. After the analyst has verified that conducting the search is appropriate, the starting point is to develop the project logic and a description of key issues and problems. Discussions with the desk officer may have provided some clues as to the major issues and problems. Scanning the files for similar past responses may be helpful.

Specify project logic using the Logical Framework elements of goal, purpose, and outputs. The LogFrame assists in the search strategy in two ways. Goal, purpose and output statements include or suggest key words, and help define alternatives for consideration.

The "best-case" PIDs will state the goal, purpose, and outputs--the "worst-case" will only hint at these elements. Even when a LogFrame is given, the analyst studies the rest of the PID in order to affirm

that the logic presented is indeed descriptive of the problem. This should not be viewed as an exercise only in constructing LogFrames. Rather, it is the process of identifying the problem to be solved and ways to search for information.

Identify alternative purposes to achieve the goal, and alternative outputs to achieve the purpose. The completed worksheets for prior searches, and discussions with colleagues are the best source of alternatives. Throughout the process the analyst should interact informally with other analysts to obtain the benefits of their thinking and experience with similar projects.

In identifying issues and problems, the analyst gives special attention to areas where the PID is weak. PIDs sometimes specify areas where the project designers are not certain. Additional clues are often found in the "issues" section of the PID, items raised in AID/W cables to the missions, and, by inference, in the types of special manpower expertise requested and the areas which indicate "we have no data."

The format used for the Quick Response project logic and search strategy is shown in Figure V-4. The format consists of three parts. First is the basic information at the top describing the project name, number, funding, etc., and DIU control information such as DIU number, analyst name, and target date for completion. The second is the Project Analysis section, consisting of the problem and issues statements, the goal, purpose, and outputs, and alternatives. The third is the Search and Source Strategy, which identifies specific index terms and sources from the computer and ARC, and indicates other sources to be checked.

After drafting the project logic and alternatives, problem and issues, the analyst reviews a typed draft with the supervisor and/or peers.

FIGURE V-4

QUICK RESPONSE PROJECT LOGIC AND SEARCH STRATEGY

BASIC INFORMATION

PROJECT NUMBER: _____
DIU NUMBER: _____
COUNTRY: _____
PROJECT TITLE: _____
AID FUNDING: _____
DIU ANALYST: _____
TARGET DATE: _____

PROJECT ANALYSIS

PROBLEM: _____
_____

KEY ISSUES: _____
_____

GOAL: _____
_____

PURPOSE: _____
_____

OUTPUTS: _____
_____

ALTERNATIVES: _____
_____

SEARCH AND SOURCE STRATEGY

COMPUTER: _____
_____

ARC: _____
_____

OTHER SOURCES: _____
_____

Generally the supervisor will participate in the review, but colleagues may be involved instead if the supervisor is unavailable.

When the Project Analysis section is adequate in the opinion of the analyst and supervisor or peers, the Search and Source Strategy is developed. For the quick response, the search strategy includes key words for the computer search and the ARC search. Key words are selected by (1) extracting the significant terms from the project outputs, purpose, and goal, and from alternatives that have been defined in the logic review; and (2) matching these to key words in the relevant thesaurus for the computer search and to the ARC catalogue search.

Sources may be found by reviewing internal DIU card files and listings, and the search strategy worksheets for prior similar projects. The analyst interacts with other analysts as needed, and may consult with other expertise (e.g., DSB) as required. If there is a DIU expert consultant (such as in agriculture), this person should be called on for additional ideas.

7. Analyst Review

The search and source strategy worksheet should be reviewed by other analysts and the supervisor. This can be done at the regular analyst meeting, or at a special meeting called for this purpose, if waiting for the regular meeting delays completion of the response.

It is important that analysts do everything within their ability to meet the target date for completion they have set. If these dates are in danger of being missed or are missed, at a minimum the analyst owes an explanation to his peers.

The purpose of these reviews is to take advantage of the experience of other analysts in improving the search design, and thus the response package. Analysts should welcome comments and suggestions as to additional possible issues, modifications to the logic, etc., and suggestions should be offered in a constructive spirit. Analysts may be open to some criticism if they rely on their supervisor/peer group for assistance without first doing basic analysis on a basic strategy and list of sources. The review is expected to add depth to a search strategy--it is not intended to be the forum in which a basic approach is developed.

The two parts of Figure V-4 which call for thinking and analysis, the Project Analysis section and the Search and Source Strategy, may be developed and reviewed sequentially at two different meetings, or both may be done at the same time, depending on timing.

8. Undertake the Search

One analyst stated an approach to implementing the search after completing the Strategy Sheets as, "If you start with the obvious person or source, you get passed on to the less obvious, until finally you get the information you need." The concept of starting at the obvious place, and starting early on things which require long elapsed times to complete, are important guidelines for undertaking the search.

Many of the activities involved in the search are flexibile in their order of execution. There is often no optimum sequence as to whether to start with ARC, DSB, the computer, or others. The sequence may depend on factors outside your control (the DSB expert may be absent or the computer down), or can be adjusted for convenience (doing the ARC searching for several packages during a single visit). The analyst works independently to meet outside deadlines, and sets up schedules and activity sequences accordingly.

Computer Search

Based on the set of search terms developed and reviewed with others, the analyst searches for relevant projects in the DIU data bases. As a rough rule of thumb, the search should turn up between 10 and 25 projects. If the number being retrieved is greater than 25, there is usually a need to define the search terms more carefully. If the number is less than 10, they may need to be broadened. There are no hard and rigid rules as to how many projects the file search should turn up. The general guidance is that the search should turn up all projects which are conceivably of relevance to the project designer. In doing so, the analyst continuously reviews the computer output and attempts to evaluate the effort from the project designer's viewpoint and ask if the outputs provide a sufficient basis for addressing the key issues and problems defined in the project analysis.

The computer printouts will identify projects to check out in the files. Review of the project files will identify points to include in the cover letter, as well as sections of project papers to include in the response package.

The critical step is making a mental bridge between the information included in the project files, and the problems of the user whose response is being prepared.

Evaluations

Evaluative insights are more valuable than simple project descriptions or summaries. The project files vary in their evaluative content, but lack of documents entitled "evaluation" does not mean there are no evaluation materials.

Within the project files, evaluation issues can be inferred by comparing and contrasting the documentation on the project for different years. A revised Project Paper is likely to include a discussion of project changes based on evaluation. Project correspondence can signal problems which the project faced which may be relevant to the response package.

Evaluative insights can be obtained orally from the DSB and other expert sources. Ask them what, in their experience, are some of the key problems that projects of this type normally encounter and how to best design the project design to minimize those problems?

9. Assemble the Quick Response Package

Based on the search, the analyst must interpret the results in a manner meaningful to the project designer. It is not sufficient to send the computer printout--the analyst must describe the important elements of the problem as they were viewed, how the search was conducted, the results of the search, and additional areas that might be covered in a more lengthy analysis.

There are three major sections to the quick response package. In addition to the computer printout, the package includes the cover letter, and additional materials.

The Cover Letter

The cover letter is tailored to the needs of the reader and to the issues/problems addressed by the analyst.

The letter will generally not exceed three pages, and will be both appropriate and of high quality. Appropriateness concerns relevance to the particular problem the user faces. This includes summarizing

and interpreting the materials which were reviewed and including evaluation insights. Quality concerns writing the letter in such a manner that the reader can follow the analytic steps the analyst went through. Quality also refers to proofreading the letter for grammatical and spelling mistakes.

One approach to drafting the letter is to use the "documentary" or "here is how I went about the search" approach. The analyst shares with the reader an interpretation of the problem he/she was trying to solve and describes the project logic, particularly if that differed from what was included in the PID submission. Describe the major issues the search considered, and the thinking process of the search on the computer and ARC, and other sources used. Describe the blind alleys the search encountered, the alternative approaches which were considered, etc.

One approach of the letter is to stimulate the kind of thinking needed by the project designer to better specify his real information requirements. Project designers will often not know what their real needs are--the cover letter should be a catalyst by which he can define further information needed to design a solid project. One approach is the issues approach, in which the analyst specifies additional issues related to the project which the project designer may wish to have searched. Another approach is the source approach, in which the analyst describes the alternative information sources which could be investigated and the type of information which is likely to result from them.

Writing high quality, thought-provoking letters is as much an art as it is a science. The ability to define issues and information in a manner meaningful to project designers will improve with experience, and with greater contact with other analysts.

The analyst should begin to draft the response as early as possible in the process-as soon as the key issues and problems are defined. Don't get caught in the trap of continuing to read too long in hopes that this will help write the letter. If you get stuck, write a rough draft and have other analysts review and comment, or ask the supervisor for assistance. The office maintains a file of illustrative responses which demonstrate the style and tone the analyst should strive for.

The cover letter should offer the continued assistance of DI in helping the project designer, and should request that he formulate his further needs as concisely and specifically as possible and respond by cable. The letter should also include several other specific sources (211-d, etc.) which the reader can access directly. Include names and addresses to permit direct access.

Other Materials

The package should include other materials which can be quickly and easily gathered which bear on the problem, such as representative bibliographies, selections from previous evaluation studies, automatic response packages, how-to manuals, etc. In addition to being immediately useful, their inclusion suggests the types of materials which DIU can provide.

10. Supervisor Review and Approval

The final version of the package will be reviewed by the supervisor. The supervisor may offer comments, suggestions, or revisions to it before sending it for final DIU clearance. If the analyst has submitted earlier drafts, or discussed conceptual problems with the supervisor, the changes will be fewer.

11. DIU Director Approval

When the letter meets the standards of quality and appropriateness which are necessary, the supervisor will pass the letter on for DIU Director (or Deputy) final review and approval.

12. Package Sent

The completed package is distributed to the users and placed in internal files. Users include (1) the field officer, (2) the desk officer, (3) DR technical officers in appropriate subject area, and may include others (such as members of the project review committee). Materials which have been borrowed from the ARC or other sources are returned, and the letter and computer search are placed in central files, where they are accessible to other analysts.

Chapter 6

Responsibilities

A. RESPONSIBILITIES OF THE INFORMATION ANALYSTS

The major responsibilities of the DIU information analyst are as follows:

1. With regard to other Analysts and Supervisor:

   1.1 Bring to the attention of peers useful information sources, and share new information which assists other analysts in doing a more efficient job.

   1.2 Assist other analysts to be more effective at compiling packages both informally and formally. Informally, assist when called upon in developing search strategies and problem statements and offer suggestions based on experience. Formally, participate in the weekly review meetings.

   1.3 Assume the responsibility for bringing new analysts rapidly up to speed.

   1.4 Accept new work assignments from the supervisor and jointly establish deadlines and interim schedules for such work. Keep the supervisor informed of progress, and solicit assistance when required.

2. With regard to Information Packages and DIU Systems:

   2.1 For each information package, carefully formulate a problem/issue statement and develop an appropriate search strategy.

   2.2 In conjunction with the supervisor, set deadlines for finished information packages and plan work to meet such deadlines, including the setting of interim checkpoints.

   2.3 Manage time and resources effectively to produce the required information packages within schedule and quality specifications.

2.4 Assist in maintaining the condition of in-house files and information systems--return files and reference materials to designated points, update logs and the card files, add new materials and reference sources to common shelves, etc.

2.5 Bring to the attention of the supervisor suggestions for special projects, outreach tasks, methods for improving information/analysis systems, and similar ideas or problems developed during the course of your work.

3. With regard to Information Users:

3.1 Define the users problem and interpret information needs appropriately. If necessary, validate the problem statement and search strategy directly with the user, or with peers and supervisor.

3.2 Set time and quality targets for each package, communicate such targets to the user at the outset of the search, and treat the meeting of those targets as an obligation.

3.3 With every information package sent, include both an offer to provide additional assistance as well as specific alternative sources the user can address directly.

B. RESPONSIBILITIES OF THE SUPERVISOR OF DIU ANALYSTS

The major responsibilities of the supervisor of the DIU analysts are as follows:

1. With regard to the Analysts:

1.1 Actively encourage and solicit ideas concerning more effective working procedures and response packages.

1.2 Assign incoming DIU work to analysts.

1.3 Review and supervise the development of response packages, providing special assistance where required.

1.4 Assist the analysts in establishing personal and professional growth objectives.

1.5 Represent staff point of view in communicating with senior DIU management

2. With regard to the Information Packages:

2.1 Evaluate all PIDs in budget cycle to determine DIU annual (long-term) program emphasis and workload.

2.2 Develop appropriate logs, control sheets, and other administrative systems required to effectively control and monitor development of the packages.

2.3 Monitor and track the status of each information package at a level of detail adequate for effective control, as well as upward reporting.

2.4 Anticipate and schedule medium-term (3 to 6 month) workloads to ensure effective overall operations during both peak and slack periods.

2.5 Plan special projects, outreach tasks, and methods for improving the information/analysis system.

2.6 Cooperative with DIU systems analyst in designing and implementing effective information storage and retrieval strategies to ensure a smooth and orderly access to relevant information. Bring to the attention of DIU systems analyst additional requirements of the information.

2.7 Design or suggest to top management mechanisms for measuring user feedback regarding the utility of information packages and how DIU operations could be improved.

3. With regard to the DIU Director and Deputy Director:

3.1 Attend meetings with senior staff and represent the viewpoints of the analysts.

3.2 Provide periodic or episodic reports to top management concerning DIU operations which meet their needs to be informed at the level of detail they require.

3.3 Assist the DIU Director and Deputy Director with long-term DIU planning efforts.

3.4 To the extent requested by the Director, assist in formally and informally describing and explaining the DIU mission to other parts of the agency.

3.5 Perform other duties of an administrative or supervisory nature as requested by the Director.

PREFACE TO APPENDIX A

All computer commands and parts of computer commands found in the text of this Appendix have been placed in boxes for easy identification.

Commands which appear outside the body of the text in separate examples are marked with arrows.

DIS. Two other systems which may someday be used by DS/DIU are the Economic and Social Data Bank (ESDB) and the Foreign Disaster Assistance System (FDAS). ESDB provides descriptive statistics such as GNP, population, etc. FDAS supplies "Country Profile" booklets which would be useful in learning about various factors within specific countries.

The four files used by DS/DIU will be discussed in detail below. Some of the fields (specified areas within records) will be described. However, this will not be sufficient to acquaint you with all of the elements which exist within the files. Data Element Dictionaries (D.E.D.s) are available at the computer terminals. Definitions of the contents of all of the files can be obtained from these listings. Reading through a D.E.D. is the best preparation for searching the data bases. It gives you ideas on how to search and also displays all possible outputs that can be obtained.

A. PAISHIST

The PAISHIST file is a set of records, and each record is a project. The PAISHIST file contains all completed AID projects and all active AID projects (except for projects which became active in the current year). The PAISHIST file supplies a minimal amount of information as Table A-1 shows.*/ Old project number (OLDNO), title (TITLE), old technical code (OLD-TEC) start and finish dates (YY-DIST and YY-DTCP), total AID expenditures (EXPS-TA), total AID obligation (OBLS-TA), and new project number (PROJECT) are all part of the PAISHIST file.

Specified areas within a record are known as "fields." Referring to Table A-1, OLDNO, TITLE, OLD-TEC, etc., are all "fieldnames."

---

*/ These tables are known as "Field Definition Tables."

TABLE A-1

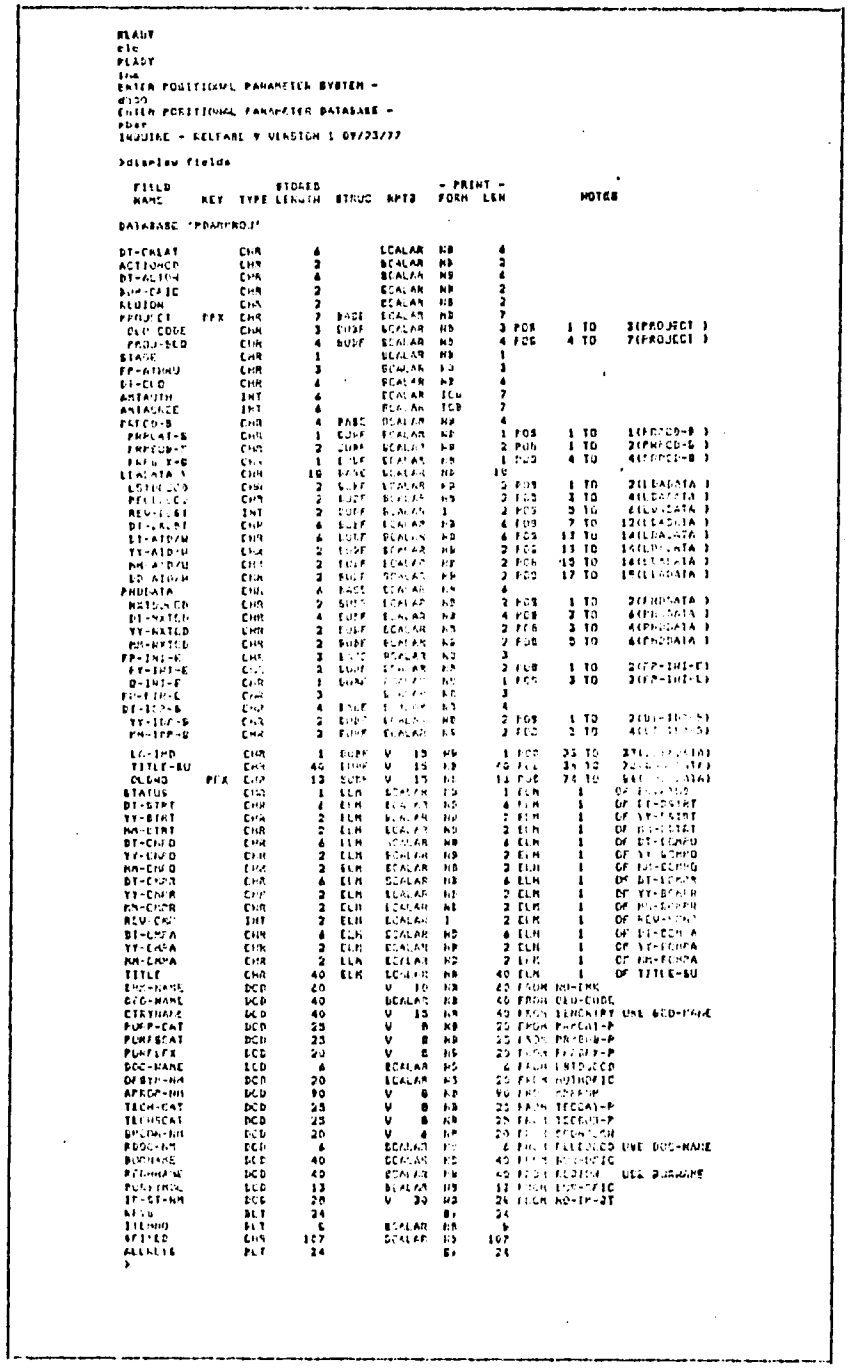
PAISHIST DEFINITION TABLE

FIELD NAME		STORED		- PRINT -			NOTES			
			LENGTH	STRUC	RPTS	FORM	LEN			
DATABASE 'ACCT14'										
REGION		CHR	2		SCALAR	NB	2			
PROJECT	PFX	CHR	7	BASE	SCALAR	NB	7			
GEO-CODE		CHR	3	SUBF	SCALAR	NB	3	POS	1 TO	3(PROJECT)
PROJ-SEQ		CHR	4	SUBF	SCALAR	NB	4	POS	4 TO	7(PROJECT)
OLDNO	PFX	CHR	13	BASE	SCALAR	NB	13			
OLD-GEO		CHR	3	SUBF	SCALAR	NB	3	POS	1 TO	3(OLDNO)
OLD-CAT		CHR	2	SUBF	SCALAR	NB	2	POS	4 TO	5(OLDNO)
OLD-TEC		CHR	3	SUBF	SCALAR	NB	3	POS	6 TO	8(OLDNO)
OLD-SEQ		CHR	3	SUBF	SCALAR	NB	3	POS	9 TO	11(OLDNO)
OLD-SFX		CHR	2	SUBF	SCALAR	NB	2	POS	12 TO	13(OLDNO)
DT-STRT		CHR	4	BASE	SCALAR	NB	4			
YY-STRT		CHR	2	SUBF	SCALAR	NB	2	POS	1 TO	2(DT-STRT)
MM-STRT		CHR	2	SUBF	SCALAR	NB	2	POS	3 TO	4(DT-STRT)
DT-CMP		CHR	4	BASE	SCALAR	NB	4			
YY-CMP		CHR	2	SUBF	SCALAR	NB	2	POS	1 TO	2(DT-CMP)
MM-CMP		CHR	2	SUBF	SCALAR	NB	2	POS	3 TO	4(DT-CMP)
STATUS		CHR	1		SCALAR	NB	1			
OBLS-TA		INT	6		SCALAR	H	6			
EXPS-TA		INT	6		SCALAR	H	6			
TITLE		CHR	40		SCALAR	NB	40			
PROJND		CHR	14		SCALAR	NB	14			
GEO-NAME		DCD	40		SCALAR	NB	40	FROM GEO-CODE		
BURNAME		DCD	40		SCALAR	NB	40	FROM REGION		
KEYS		BLT	24			S,	24			
ITEMNO		BLT	8		SCALAR	NB	8			
$FIXED		CHR	97		SCALAR	NB	97			
ALLKEYS		BLT	24			S,	24			

TABLE A-2

PBAR FIELD DEFINITION TABLE

(EXCERPT)



```
READY
clg
READY
time
ENTER POSITIONAL PARAMETER SYSTEM -
d130
ENTER POSITIONAL PARAMETER DATABASE -
pbar
INQUIRE - RELEASE 9 VERSION 1 09/23/77

>display fields

  FIELD                    STORED                        - PRINT -
  NAME        KEY  TYPE  LENGTH  STRUC   OPTS   FORM  LEN        NOTES

DATABASE 'PBARPROJ'

DT-CREAT          CHR        6          SCALAR   ND       6
ACTION-CD         CHR        2          SCALAR   ND       2
DT-ACTION         CHR        6          SCALAR   ND       6
SYS-CODE          CHR        2          SCALAR   ND       2
REVISION          CHR        2          SCALAR   ND       2
PROJECT     PRX   CHR        7   PADE   SCALAR   ND       7
  CLIENT CODE     CHR        3   SUBF   SCALAR   ND       3 POS    1 TO    3(PROJECT )
  PROJ-SEQ        CHR        4   SUBF   SCALAR   ND       4 POS    4 TO    7(PROJECT )
STAGE             CHR        1          SCALAR   ND       1
PP-ATTNO          CHR        3          SCALAR   ND       3
DT-CLD            CHR        4          SCALAR   ND       4
ANTAUTH           INT        6          SCALAR   ICD      7
ANTAUCE           INT        6          SCALAR   ICD      7
PSTCD-B           CHR        4   PADC   SCALAR   ND       4
  PRPLAT-B        CHR        1   SUBF   SCALAR   ND       1 POS    1 TO    1(PSTCD-B )
  PRPCOD-B        CHR        2   SUBF   SCALAR   ND       2 POS    1 TO    2(PRPCD-B )
  PRPLN-B         CHR        1   SUBF   SCALAR   ND       1 POS    4 TO    4(PSTCD-B )
LEADATA           CHR       16   PADC   SCALAR   ND      16
  LSTSEC-CD       CHR        2   SUBF   SCALAR   ND       2 POS    1 TO    2(LEADATA )
  PRELSEC-        CHR        2   SUBF   SCALAR   ND       2 POS    3 TO    4(LEADATA )
  REVISED1        INT        2   SUBF   SCALAR   I        2 POS    5 TO    6(LEADATA )
  DT-ALT1         CHR        6   SUBF   SCALAR   ND       6 POS    7 TO   12(LEADATA )
  SY-AIDM         CHR        6   SUBF   SCALAR   ND       6 POS   13 TO   18(LEADATA )
  YY-AIDM         CHR        2   SUBF   SCALAR   ND       2 POS   13 TO   14(LEADATA )
  MM-AIDM         CHR        2   SUBF   SCALAR   ND       2 POS   15 TO   16(LEADATA )
  SD-AIDM         CHR        2   SUBF   SCALAR   ND       2 POS   17 TO   18(LEADATA )
PHDATA            CHR        6   PADC   SCALAR   ND       6
  NETSUNCD        CHR        2   SUBF   SCALAR   ND       2 POS    1 TO    2(PHDATA )
  DT-NXTED        CHR        4   SUBF   SCALAR   ND       4 POS    3 TO    6(PHDATA )
  YY-NXTED        CHR        2   SUBF   SCALAR   ND       2 POS    3 TO    4(PHDATA )
  MM-NXTED        CHR        2   SUBF   SCALAR   ND       2 POS    5 TO    6(PHDATA )
PP-INI-E          CHR        3   SUBF   SCALAR   ND       3
  PY-INI-E        CHR        1   SUBF   SCALAR   ND       1 POS    3 TO    3(PP-INI-E)
  D-INI-E         CHR        1   SUBF   SCALAR   ND       1 POS    3 TO    3(PP-INI-E)
PP-FIN-E          CHR        3          SCALAR   ND       3
DT-ISS-A          CHR        4   SUBF   SCALAR   ND       4
  YY-ISS-A        CHR        2   SUBF   SCALAR   ND       2 POS    1 TO    2(DT-ISS-A)
  MM-ISS-A        CHR        2   SUBF   SCALAR   ND       2 POS    3 TO    4(DT-ISS-A)

  LG-IMP          CHR        1   SUBF   V   15   ND       1 POS   35 TO   35(...)
  TITLE-SU        CHR       40   SUBF   V   35   ND      40 POS   36 TO   75(...)
  CLIENT     PRX  CHR       13   SUBF   V   15   ND      13 POS   76 TO   88(...)
STATUS            CHR        1   ELM    SCALAR   ND       1 ELM    1    OF PP-STAT
DT-STRT           CHR        4   ELM    SCALAR   ND       4 ELM    1    OF DT-STRT
YY-STRT           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF YY-STRT
MM-STRT           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF MM-STRT
DT-CMPD           CHR        6   ELM    SCALAR   ND       6 ELM    1    OF DT-CMPD
YY-CMPD           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF YY-CMPD
MM-CMPD           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF MM-CMPD
DT-CMPR           CHR        6   ELM    SCALAR   ND       6 ELM    1    OF DT-CMPR
YY-CMPR           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF YY-CMPR
MM-CMPR           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF MM-CMPR
REV-CMP           INT        2   ELM    SCALAR   I        2 ELM    1    OF REV-CMP
DT-CMPA           CHR        6   ELM    SCALAR   ND       6 ELM    1    OF DT-CMPA
YY-CMPA           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF YY-CMPA
MM-CMPA           CHR        2   ELM    SCALAR   ND       2 ELM    1    OF MM-CMPA
TITLE             CHR       40   ELM    SCALAR   ND      40 ELM    1    OF TITLE-SU
EMP-NAME          SCD       20          V   10   ND      20 FROM NO-EMP
ORG-NAME          SCD       40          SCALAR   ND      40 FROM ORG-CODE
CERTNAME          SCD       40          V   35   ND      40 FROM SENCERT USE SCD-PHASE
PURP-CAT          SCD       25          V    8   ND      25 FROM PURCAT-P
PURPSCAT          SCD       25          V    8   ND      25 FROM PRPSUB-P
PURPLFX           SCD       20          V    6   ND      20 FROM PRPPFX-P
SCC-NAME          SCD        6          SCALAR   ND       6 FROM LNSDJSCD
OFSTR-NM          SCD       20          SCALAR   ND      20 FROM MUTHOFIC
APROP-NM          SCD       90          V    8   ND      90 FROM APPROP
TECH-CAT          SCD       25          V    8   ND      25 FROM TECCAT-P
TECHSCAT          SCD       25          V    8   ND      25 FROM TECSUB-P
SPLNM-NM          SCD       20          V    6   ND      20 FROM SPLNM-NM
PROG-NM           SCD        6          SCALAR   ND       6 FROM FILEDSCD USE SCC-NAME
BUSNAME           SCD       40          SCALAR   ND      40 FROM BUSINESS
PRINNAME          SCD       40          SCALAR   ND      40 FROM PRINCIPL  USE BUSNAME
PUBSECNO          SCD       13          SCALAR   ND      13 FROM DOT-PSEC
IP-ST-NM          SCD       20          V   30   ND      24 FROM NO-IP-ST
NEGD              BLT       24                   BY      24
FILENO            BLT        6          SCALAR   BIN      6
ENTERED           CHR      107          SCALAR   ND     107
ALLOCATE          BLT       24                   BY      24
>
```

The actual data is known as the "field value." If OLDNO=2631018023026, then the thirteen digit number is the field value. In searching for certain types of projects this file is usually examined by either a search of the titles or of the old technical codes for relevant projects. This file is used infrequently by the DIU analyst. Section V contains examples of searches on this file.

B. PBAR

The PBAR data base also uses the project as its record. This file contains all projects which were active in September 1974 plus all projects active since September 1974, plus all proposed projects captured from the Annual Budget Submission (ABS) of the Missions as of the current fiscal year. Table A-2 displays excerpts from some of the fields in the PBAR data base.

PBAR keeps track of a project's financial status and its life cycle. Note that PAISHIST's "OLDNO" has been completely replaced by the seven digit number called "PROJECT." An analyst usually uses PBAR to find out the cost of a project and the dates it began and ended.* For projects in the planning phase, "ECS-LPTL" will supply the estimated life-of-project costs. "FP-INI-E" and "FP-FIN-E" will give the estimated initial and final fiscal periods of authorization or obligation for a project. For projects which have reached an active phase, "AMTAUTH" gives the total amount of project funding authorized, and "DT-STRT" and "DT-CMPR" furnish the dates which a project actually started and the most recent estimate of the dates of completion of a project. The field "STAGE" depicts the current state of project development as it progresses from planning, through

*/ PAISHIST can also serve this purpose for active and all completed or terminated porjects. PBAR can also retrieve this information for proposed projects, but not for all completed or terminated projects.

implementation, to completion. A field value of "P" means the project is still in the planning stage. "A" denotes an active project, while "I" means the project is inactive (either completed or terminated*).

The analyst searches for this financial and chronological information when compiling a full package (see Section II-B through II-E of this manual). When doing a quick response (see Chapter II-A of this manual), it is not necessary because the procedure for generating a quick response report does this task for you.

PBAR can also be used to find projects by subject area. Two fields, "PRPCD-P" (purpose code) and "TECCD-P" (technical code) are the major fields for this purpose. The purpose code indicates the primary purpose of a subproject. The technical code indicates the primary technical field or subproject activity. Complete lists of purpose and technical codes are kept at the computer terminals. With the development of the TEXT file, searches by purpose or technical codes have become less common. However, the PBAR file will list projects that are in the planning stage, while the TEXT file cannot. If you must search for projects by subject area in PBAR, the purpose and technical codes are a good way to do it. Titles of projects can also be scanned.

C. TEXT

The TEXT file and the BREF file form the Development Information System. Subprojects, not projects, are the records in the TEXT file. As Table A-3 shows, the TEXT file contains a subproject field ("PROJECT9"), a title field ("TITLE"), problem ("PROBLEM"),

*/ "Terminated" means AID funding was stopped prior to the planned completion date. For example, many projects in eastern Nigeria were terminated as a result of the Biafran Civil War.

TABLE A-3

TEXT FIELD DEFINITION TABLE

FIELD NAME	KEY	TYPE	STORED LENGTH	STRUC	RPTS	- PRINT - FORM	LEN	NOTES
DATABASE 'PROJTEXT'								
PROJECT9	PFX	CHR	9	BASE	SCALAR	NB	9	
PROJECT	PFX	CHR	7	SUBF	SCALAR	NB	7	POS 1 TO 7(PROJECT9)
DT-ONFLE		CHR	6		SCALAR	NB	6	
DT-LSTUD		CHR	6		SCALAR	NB	6	
DT-LSTR/		CHR	6		SCALAR	NB	6	
OLDNO		CHR	13		SCALAR	NB	13	
TITLE		CHR	40		SCALAR	NB	40	
PROBLEMO		CHR	V 540		SCALAR	B	540	
PROBLEML		CHR	V 540		SCALAR	B	540	
STRATGYO		CHR	V 480		SCALAR	B	480	
STRATGYL		CHR	V 480		SCALAR	B	480	
SUMMARY		CHR	V 720		SCALAR	B	720	
GOAL-NO		CHR	V 240		SCALAR	B	240	
GOAL-VO		CHR	V 240		SCALAR	B	240	
GOAL-MO		CHR	V 240		SCALAR	B	240	
GOAL-AO		CHR	V 240		SCALAR	B	240	
PURP-NO		CHR	V 480		SCALAR	B	480	
PURP-VO		CHR	V 480		SCALAR	B	480	
PURP-MO		CHR	V 480		SCALAR	B	480	
PURP-AO		CHR	V 480		SCALAR	B	480	
OUTP-NO		CHR	V 480		SCALAR	B	480	
OUTP-VO		CHR	V 480		SCALAR	B	480	
OUTP-MO		CHR	V 480		SCALAR	B	480	
OUTP-AO		CHR	V 480		SCALAR	B	480	
INPT-NO		CHR	V 540		SCALAR	B	540	
INPT-VO		CHR	V 540		SCALAR	B	540	
INPT-MO		CHR	V 540		SCALAR	B	540	
INPT-AO		CHR	V 540		SCALAR	B	540	
GOAL-NL		CHR	V 240		SCALAR	B	240	
GOAL-VL		CHR	V 240		SCALAR	B	240	
GOAL-ML		CHR	V 240		SCALAR	B	240	
GOAL-AL		CHR	V 240		SCALAR	B	240	
PURP-NL		CHR	V 480		SCALAR	B	480	
PURP-VL		CHR	V 480		SCALAR	B	480	
PURP-ML		CHR	V 480		SCALAR	B	480	
PURP-AL		CHR	V 480		SCALAR	B	480	
OUTP-NL		CHR	V 480		SCALAR	B	480	
OUTP-VL		CHR	V 480		SCALAR	B	480	
OUTP-ML		CHR	V 480		SCALAR	B	480	
OUTP-AL		CHR	V 480		SCALAR	B	480	
INPT-NL		CHR	V 540		SCALAR	B	540	
INPT-VL		CHR	V 540		SCALAR	B	540	
INPT-ML		CHR	V 540		SCALAR	B	540	
INPT-AL		CHR	V 540		SCALAR	B	540	
KEYWORD		CHR	16	BASE	V 20	NB	16	
KEYTYPE		CHR	1	SUBF	V 20	NB	1	POS 1 TO 1(KEYWORD)
KEYSUBJ	PFX	CHR	15	SUBF	V 20	NB	15	POS 2 TO 16(KEYWORD)
BIBID	PFX	CHR	13	BASE	V 20	NB	13	
BIBCTL9		CHR	9	SUBF	V 20	NB	9	POS 1 TO 9(BIBID)
BIBTYPE		CHR	2	SUBF	V 20	NB	2	POS 10 TO 11(BIBID)
REL-PROJ		CHR	57	BASE	V 6	NB	57	
REL-TYPE		CHR	1	SUBF	V 6	NB	1	POS 1 TO 1(REL-PROJ)
REL-AID		CHR	9	SUBF	V 6	NB	9	POS 8 TO 16(REL-PROJ)
REL-HOST		CHR	40	SUBF	V 6	NB	40	POS 18 TO 57(REL-PROJ)
REL-DCD		CHR	3	SUBF	V 6	NB	3	POS 2 TO 4(REL-PROJ)
REL-DCC		CHR	3	SUBF	V 6	NB	3	POS 5 TO 7(REL-PROJ)
REL-PNO		CHR	10	SUBF	V 6	NB	10	POS 8 TO 17(REL-PROJ)
REL-DTL		CHR	40	SUBF	V 6	NB	40	POS 18 TO 57(REL-PROJ)
KEYS		BLT	24			S,	24	
ITEMNO		BLT	8		SCALAR	NB	8	
$FIXED		CHR	80		SCALAR	NB	80	
ALLKEYS		BLT	24			S,	24	

strategy ("STRATGYL"), summary ("SUMMARY"), and Logical Framework ("GOAL-NL," "PURP-NL," "OUTPUT-NL") statements. The "L" suffix stands for "latest." These fields supply the most recent project design data.

Almost all of the projects in the TEXT file were taken from PBAR.* The six fields described above were abstracted from project documents. The abstracts were printed onto coding forms, keypunched, and entered into the data base. The order of abstracting was determined by purpose code. Projects with purpose codes in the 100 series are food supply projects, and these were abstracted first. The 200 series, rural development projects, were done next. Nutrition projects, which have purpose codes in the 300s, were then abstracted. The 400 series, population projects, will be done at a later date. Health projects comprise the 500 series, and as of November 1977, almost all of them were on line. Education/Human Resources (purpose codes in the 600s) are being abstracted next, and will probably be followed by Family Planning Projects.** As of December 1977, DIU was answering queries in the areas of food supply, rural development, nutrition and health.

When a project is abstracted, it is assigned a maximum of 20 "key words." These key words define the subject areas a project covers. The TEXT file is virtually always searched using key words. They are more specific than the purpose or technical codes of PBAR, and they are not restricted to primary activities.

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*/ Some PAISHIST projects for which project files could be located were also included, if they were judged to be important by an expert consultant. Other past AID projects will be added to the TEXT file on an as-required basis. Through time the TEXT file will have many projects which are not on the PBAR file.

**/ Family Planning projects form part, but not all, of the population series (400 purpose code).

Key words are found in the fields "KEYSUBJ" and "KEYWORD." "KEYSUBJ" is the field used in searches, and contains the actual key word. "KEYWORD" also contains the key word but it also has a numerical prefix between 1 and 7. Table A-4 provides the meanings of these numerical qualifiers. For example, if a "1" precedes the key word, then that key word applies only to the problem statement. If a "3" precedes the key word, then it applies to the problem and output statements. As computer outputs, these numeric qualifiers help to show whether the activity described by the key word applies to the output or purpose levels of the Logical Framework, the problem the project is addressing, or any combination of the three. They can also be used in a search to "link" key words to the problem, outputs, or purpose (an example of a linked search appears at the end of the Appendix).

Searching the TEXT file by key words is the most frequent and important query an analyst conducts. It is through these searches that similar, related and alternative projects are chosen and included in response packages. Examples A-2 and A-3 contain examples of searches of the TEXT file.*

D. BREF

"BREF" stands for "Bibliographic Reference," and the title explains the purpose of this data base. The contents of the physical project file are the records of the data base. Such contents include Project Papers, Capital Assistance Papers, names of organizations and individuals, projects, subprojects, evaluations, other publications, etc. Table A-5 displays the Fields Definition Table for the BREF file. Each record is assigned an identification number ("BIBID").

*/ There are other ways to search the TEXT file besides key word searches, as will be seen in Section V.

TABLE A-4

Keyword Numeric Qualifier

1. First position of keyword field
2. Definition table:
    1. Problem
    2. Output
    4. Purpose

---

    3. Problem + Output
    5. Problem + Purpose
    6. Output + Purpose
    7. Problem + Output + Purpose

Part of the BIBID number is the "BIBTYPE," a two digit number representing the record type. Table A-6 lists all of the BIBTYPES and their meanings. For example, a BIBTYPE of 10 represents a Project Appraisal Report, while a BIBTYPE of 35 describes a knowledgeable institution.

Short abstracts of most of the records in this file are provided, under the field name of "ABSTRACT." Other frequently used fields are "ORGN" (name of knowledgeable institution), "AUTHOR-I" (author or knowledgeable individual), "TITLE-EN" (title of reference) and "BTYPNAM" (the description of the BIBTYPE). Of course, the Data Element Dictionary should be consulted for definitions of all the fields which appear in Table A-5.

The BREF file currently has two major uses for DIU analysts. First, it supplies names of knowledgeable individuals and institutions when one is at the stage of formulating a search strategy. Secondly, it is a major source of evaluation documents. Referring to Table A-6, BIBTYPEs 10, 15, and 17 are all overt evaluation studies. Others (e.g., 16, 41, 51, 59, 63, 64, and 68) may contain evaluation data. The BREF file is automatically searched when a quick response report is done on the computer.

When a key word search is performed on the TEXT file for similar projects, the BREF file should also be queried with the same key words.* As was noted above, this will provide the analyst with relevant individuals, institutions and evaluations. Examples of such queries are provided at the end of this section.

---

*/ You can also obtain the BIBID from the TEXT file and use it to search the BREF file. TEXT and BREF can also be searched simultaneously.

TABLE A-5

BREF FIELD DEFINITION TABLE

display fields

FIELD NAME	KEY	TYPE	STORED LENGTH	STRUC	RPTS	PRINT FORM	PRINT LEN	NOTES
DATABASE 'BIBREF '								
BIBID	PFX	CHR	13	BASE	SCALAR	NB	13	
BIBCTL9		CHR	9	SUBF	SCALAR	NB	9	POS 1 TO 9(BIBID)
BIBTYPE		CHR	2	SUBF	SCALAR	NB	2	POS 10 TO 11(BIBID)
DT-ONFLE		CHR	6		SCALAR	NB	6	
DT-LSTUD		CHR	6		SCALAR	NB	6	
DT-LSTRP		CHR	6		SCALAR	NB	6	
LOC-SOU		CHR	10		SCALAR	NB	10	
PATENT		CHR	9		SCALAR	NB	9	
VOLUME		CHR	8		SCALAR	NB	8	
ISSUE		CHR	5		SCALAR	NB	5	
PAGIN		CHR	8		SCALAR	NB	8	
PRICE		CHR	5		SCALAR	NB	5	
ARC		CHR	20		SCALAR	NB	20	
CONTRACT		CHR	21		SCALAR	NB	21	
AGRIS		CHR	12		SCALAR	NB	12	
OTHERID		CHR	40		SCALAR	NB	40	
PRPCD-P		CHR	4	BASE	SCALAR	NB	4	
PRPCAT-P		CHR	1	SUBF	SCALAR	NB	1	POS 1 TO 1(PRPCD-P)
PRPSUB-P		CHR	2	SUBF	SCALAR	NB	2	POS 1 TO 2(PRPCD-P)
PRPSFX-P		CHR	1	SUBF	SCALAR	NB	1	POS 4 TO 4(PRPCD-P)
PRPCD-S		CHR	4	BASE	SCALAR	NB	4	
PRPCAT-S		CHR	1	SUBF	SCALAR	NB	1	POS 1 TO 1(PRPCD-S)
PRPSUB-S		CHR	2	SUBF	SCALAR	NB	2	POS 1 TO 2(PRPCD-S)
PRPSFX-S		CHR	1	SUBF	SCALAR	NB	1	POS 4 TO 4(PRPCD-S)
TECHCODE		CHR	3	BASE	V 10	NB	3	
TECCAT-P		CHR	1	SUBF	V 10	NB	1	POS 1 TO 1(TECHCODE)
TECSUB-P		CHR	2	SUBF	V 10	NB	2	POS 1 TO 2(TECHCODE)
SCONCERN		CHR	4		V 10	NB	4	
ORGN		CHR	60		SCALAR	NB	60	
ORGNADDR		CHR	25		SCALAR	NB	25	
ORGNTYPE		CHR	3		SCALAR	NB	3	
PUBLISH		CHR	V 40		SCALAR	B	40	
PUBADDR		CHR	25		SCALAR	NB	25	
PUBDATE		CHR	6		SCALAR	NB	6	
TITLE-EN		CHR	V 140		SCALAR	B	140	
JOURNAL		CHR	V 60		SCALAR	B	60	
AUTHOR-I		CHR	40		V 4	NB	40	
ABSTRACT		CHR	V 360		SCALAR	B	360	
KEYWORD		CHR	16	BASE	V 20	NB	16	
KEYTYPE		CHR	1	SUBF	V 20	NB	1	POS 1 TO 1(KEYWORD)
KEYSUBJ	PFX	CHR	15	SUBF	V 20	NB	15	POS 2 TO 16(KEYWORD)
PROJECT9	PFX	CHR	9	BASE	V 40	NB	9	
PROJECT	PFX	CHR	7	SUBF	V 40	NB	7	POS 1 TO 7(PROJECT9)
BTYPNAM		DCD	42		SCALAR	NB	42	FROM BIBTYPE
OTYPNAM		DCD	42		SCALAR	NB	42	FROM ORGNTYPE
PURP-CAT		DCD	25		SCALAR	NB	25	FROM PRPCAT-P
PURPSCAT		DCD	25		SCALAR	NB	25	FROM PRPSUB-P
PURPSFX		DCD	20		SCALAR	NB	20	FROM PRPSFX-P
TECH-CAT		DCD	25		V 10	NB	25	FROM TECCAT-P
TECHSCAT		DCD	25		V 10	NB	25	FROM TECSUB-P
SCON-NM		DCD	20		V 10	NB	20	FROM SCONCERN
KEYS		BLT	24			S,	24	
ITEMNO		BLT	8		SCALAR	NB	8	
#FIXED		CHR	296		SCALAR	NB	296	
ALLKEYS		BLT	24			S,	24	

TABLE A-6

BIBLIOGRAPHIC TYPE CODE TABLE

TYPE	DESCRIPTION
10	PAR
15	Scheduled Evaluation Report
16	Sector Assessment
17	Special Evaluation Report
18	Audit Report
20	Economic Analysis Abstracts
31	Knowledgeable AID Individual*
32	Knowledgeable non-AID Individual**
33	Knowledgeable Undifferentiated Individual***
34	Knowledgeable Group
35	Knowledgeable Institution
41	Feasibility Study
51	Undifferentiated Report
52	Annual Report
53	Progress Report/Interim Report
54	Graduate Thesis/Doctoral Dissertation
55	Periodical
56	Yearbook
57	Loan Paper/Capital Assistance Paper****
58	Bibliography
59	End-of-tour Report
60	Incoming Cable (Mission to AID)
61	Outgoing Cable (AID to Mission)
62	AID Support Study
63	Research Study
64	Task Force Report
65	Working Paper
66	Book
67	Handbook
68	Final Report
69	Newspaper
70	AID Discussion Paper
71	Sector Analysis/Sector Study
72	Incoming Airgram (Mission to AID)
73	Outgoing Airgram (AID to Mission)
74	Development Studies Program Tutorial Papers

All descriptions shown will appear in automated reports with the following exceptions:

1. Only the portions of an underlined description will appear.
2. *This descriptor will be abbreviated to INFORMED AID INDIVID.
3. **This descriptor will be abbreviated to INFORMED NON-AID INDIVID.
4. ****This descriptor will be abbreviated to LOAN/CAP.ASSIST.PAPER.

II. INTRODUCTION TO INQUIRE

This section is an introduction to INQUIRE, the data base management system used to conduct queries and generate reports. The data bases discussed in the previous section are comprised of "items," which is synonymous with "records." An item is the smallest group of subject-related data in a file, all components of which pertain to the same person, place or thing. All items are divided into fields and/or subfields. A field is a specified area within an item which is used for a particular category of data. A field name is an identifier or tag which is used to reference a field. A field value is the actual data content of the field. For example, in the statement [PROJECT=6210122], "PROJECT" is the field name, and the number is the field value.

A. Sequential Query

There are two ways of specifying a search in INQUIRE. A sequential search is specified by using the SCAN command with one or more field value conditions. The general form of a sequential query is the command "SCAN" followed by a field value condition(s), which represents the search strategy. This is followed by an output subcommand(s), which establish(es) the reporting format. A field value condition is written by connecting a field name to a field value(s) with "relational operators." The phrase [TITLE CONTAINS AGRIC] is a field value condition, with "CONTAINS" serving as the relational operator. Table A-7 lists the relational operators associated with the field value conditions.

TABLE A-7

RELATIONAL OPERATORS FOR SEQUENTIAL SEARCH
IS
NOT
CONTAINS
EXCLUDES
EQ
NE
GT
GE
LT
LE

The command [SCAN TITLE IS AGRICULTURE] will locate all projects with titles that begin with "Agriculture." Only one comparison is made at the beginning (the left side) of the TITLE field. Thus, the title "Training in Agriculture" would not be picked up by our example command.

The query [SCAN TITLE CONTAINS AGRICULTURE] will yield all projects with titles containing the word "Agriculture," no matter where that word occurs in the field. Our "Training in Agriculture" project would be found in this search. It would not be tabbed if the relational operator was "IS" rather than "CONTAINS." "NOT" and "EXCLUDES" are the opposites of "IS" and "CONTAINS," respectively. Neither are used too much by DIU analysts. "EQ" is used to specify an exact field value. As a rule, it is best employed when dealing with numerical fields, but this is not always the case. For example, if you were to come across a project title, "Agriculture and Rural Development," and needed more data on the project, you could enter [SCAN TITLE EQ 'AGRICULTURE AND RURAL DEVELOPMENT'] and locate the project (note that whenever you specify a field value condition which contains blanks, such as the title above, the field must be enclosed in single quotes). "NE" means "NOT EQUALS" and is the opposite of "EQ." Never use NE for character fields. Use NOT with character fields and NE for numeric fields.

The remainder of the relational operators in Table A-7 are used for numerical fields. "GT" and "LT" stand for "GREATER THAN" and "LESS THAN," while "GE" and "LE" are "GREATER THAN OR EQUAL TO" and "LESS THAN OR EQUAL TO," respectively. The command [SCAN FY-INI-E GE 76] would locate all projects with initial fiscal years of 1976 to present.

Two or more field value conditions can be combined through the use of logical operators. The three logical operators are "AND," "OR," and "AND NOT." A search of the PBAR file to locate all Tunisian nutrition projects might begin with the query: [SCAN PROJECT IS 664 AND TITLE CONTAINS NUTRITION]* If you want either Tunisian projects or projects with "Nutrition" in the title, substitute "OR" for "AND" in the above command. If you want all Tunisian projects except for those with "Nutrition" in the title, "AND NOT" is the logical operator to use.

A query containing multiple field value conditions with the same field names that are combined with "OR's" can be condensed. This is done with an "Implied-OR List." For example, to search for all projects in Brazil, Egypt and the Philippines would require two "ORs" if the query were to be written out the long way. However, since the same field is being compared each time, the command can be shortened to [SCAN PROJECT IS (512, 262, 492)]. Obviously, the "Implied-OR-List" will save time.

B. Direct Searching--Prefix Keys

There are four physical files for each logical file.** Two of these are called the "Index" file and the "Data" file. When you SCAN, every

---

*/ In all of the files the first three digits of the project number signify a geographic code. All Tunisian projects begin with 664.

**/ PAISHIST, PBAR, TEXT and BREF are logical files.

item in the Data file is searched for the requested field value condition. The Index file contains "Keys," which are pointers to specific items in the Data file. Searching with keys is similar to using a card catalogue in the library. Certain "keys," be they authors, titles, or subject areas, point to specific "data items," i.e., books. This is much faster than walking through the stacks and checking every book, which is what a sequential search (SCAN) does.

The four data bases discussed in Section I of this appendix contain a number of "prefix keys." Prefix keys are automatically derived from the field values and take the form [FIELD NAME=FIELD VALUE]. For example, [PROJECT=6250023] is part of a direct search, with PROJECT being the field name and the number the field value. The four Fields Definition Tables in Section 1 contain a column entitled "Key." The word "prefix" appears next to those fields which have been indexed for direct searching. OLDNO (for PAISHIST only), PROJECT (PBAR, TEXT, BREF), BIBID (TEXT, BREF), and KEYSUBJ (TEXT, BREF) have all been indexed. Querying a file by one of these fields can be done quickly with a direct search. The direct search counterpart of SCAN is "FIND." The only relational operator used with a prefix key is an equal sign. [FIND KEYSUBJ=FORAGE] represents the command portion of a direct search.* If a blank occurs in the field value, the entire field value condition must be placed within single quotes. [FIND 'KEYSUBJ=RURAL ROADS'] demonstrates the positioning of the single quotes. "Embedded blanks" occur when two or more words comprise the field value of a character field, such as "RURAL ROADS" in the example above.

*/ Sequential searches of indexed fields are still possible. [SCAN KEYSUBJ IS FORAGE] is a valid command.

Direct searches have the advantage of speed. They promote greater efficiency of the analysts' time because less time is spent awaiting an answer at the computer terminal. When searching for similar or alternative projects for any type of information response, the first stop is usually a direct query of TEXT by KEYSUBJ. The same query is also performed in the BREF file, yielding such data as knowledgeable individuals and institutions and evaluation references. If you have a specific project number and desire more information on that project, a direct search is the preferred method.

The same logical operators (AND, OR, AND NOT) discussed above with sequential seraches can also be used in direct searches. The only difference is that Implied-OR-Lists may not be used with the FIND command. If you are searching with an indexed field and are using a large number of field values, it is best to SCAN rather than FIND, because this reduces the size of the command.

```
FIND PROJECT=6640255 OR PROJECT=2630024 OR PROJECT=7300209
```

becomes

```
SCAN PROJECT IS (6640255, 2630024, 7300209).
```

C. Subcommands

Subcommands dictate the form your output (i.e., your answers) will take. They are the same for both sequential and direct searches. There are three major subcommands: "COUNT," "TAB," and "LIST." The first tells you the number of items that were found in your search. A TAB subcommand will cause the data to be listed in columnar form, while LIST will print out the data in a "grocery list" format, i.e., from left to right, as if it were written by hand. Trying to TAB too many fields will result in an error message or no output. unless at some point you skip to the next line. The subcommand "SKIP" performs this function.

```
FIND KEYSUBJ=FORAGE, TAB PROJECT9 TITLE PROBLEML SKIP 1 SUMMARY
```

shows how the SKIP subcommand is used. Without it, the above command would try to print both the PROBLEM and SUMMARY statements on the same line. This is impossible, and no output would be received. The LIST subcommand would obviate the need for the SKIP subcommand, but it is desirable to TAB narrative statements, because LIST goes from line to line without bothering to end a line at the end of a word. TAB does so, and makes your output much more readable. Further examples in Chapter V will clarify this issue.

Another way of skipping to the next line is by following a field name with a column number smaller than the column number in which the previous field was printed. For example, an output subcommand could be written as: `TAB PROJECT9 TITLE SUMMARY 10 60`. Typing the first number ("10") after a field name means that the SUMMARY statement will begin in Column 10 of the next line. The second number ("60") specifies that the SUMMARY statement is to have a field width of 60 characters. If only one number is typed, it will specify the column at which the beginning of the field is to be printed.

III. THE TERMINALS

DIU currently uses two remote terminals which are connected to the actual computer by telephone. One of the terminals prints directly onto paper and is called the "teleterm."* The other terminal displays information on a screen called a Cathode Ray Tube, and is commonly referred to as a "CRT." The information on the CRT can be transferred to "hard copy" (printed on paper) through a printing device connected to the CRT. The CRT has a memory capacity of 300 lines, so it should not be used to print large amounts of information. The CRT also has a maximum line width of 72 characters (which can be expanded to 80), while the teleterm's can be expanded to 132, which is the

---

* The teleterm has been moved to the AID Reference Center. Its has been replaced by a "Decwriter," which is similar in operation.

standard width of a computer printout.* However, even the teleterm should not be considered a printer. Using either terminal to print out large amounts of information is a very inefficient way to obtain hard copy. A remote printer is located one floor above the DIU offices, and information can be "routed" to it through these two terminals. This procedure is described in the "Batch Processing" section of the manual.

The teleterm and the CRT have keys resembling those of a typewriter. Both terminals have other switches and keys, but, with few exceptions, the other switches are not touched. One exception to this rule for both terminals is the On/Off switch. If one faces the teleterm, the On/Off switch is located in plain view on the right side of the console. The CRT has a toggle switch in the left rear.

There are two other exceptions to the "Do Not Touch" rule on the CRT. Along the top of the CRT are keys which do not resemble typewriter keys. One of these keys is labeled "print." It activates the small printer connected directly to the CRT. Whatever has been typed by the analyst or printed in response by the computer on the CRT will be printed when this key is depressed, to a maximum of 300 lines. That is, if 301 lines have been typed, and the "print" key is depressed, lines 2 through 301 will be printed. Line 1 is kicked out of the CRT's memory and lost forever when line 301 is typed and entered.

The other exception to the "Do Not Touch" rule on the CRT is the "break" key (this key is one of the "typewriter" keys on the teleterm). If you have entered a command which has not yet been executed,

---

*/ In order to expand the line width of these machines to their maximum, the command CLC must be entered.

or have begun to type a command and have not yet entered it, depressing the "break" key will cancel the command and return you to your previous status. Figure A-2 shows the locations of the "print" and "break" keys on the CRT. As was noted above, the teleterm's "break" key is one of the regular typewriter keys.

To clear the display and memory of the CRT, hit the "Ctrl" key followed by the "Clear Display" key. Both are located on the right side of the keyboard.

IV. LOGGING ON

The first thing an analyst always does at the terminal is "log on." After turning on the terminal, a link with the main computer must be established. This is accomplished by telephone. The CRT has its own phone for this purpose. Depress the "talk" button on the phone, and dial either 9-634-1620 or 9-634-6316. After a maximum of two rings, there should be a click and then a constant high-pitched tone. When this tone appears, press the "data" button on the phone and hang it up. You are now ready to log on at the CRT. The teleterm has two suction rings in the rear. Any telephone can be used to link the teleterm to the computer. The same procedure is used to obtain the high-pitched tone. However, the receiver is then placed directly into the suction rings in the rear of the teleterm. If the analyst faces the terminal the mouthpiece of the receiver is placed on the left side. The analyst may begin typing when the red light in the bottom right-hand corner of the keyboard lights up.

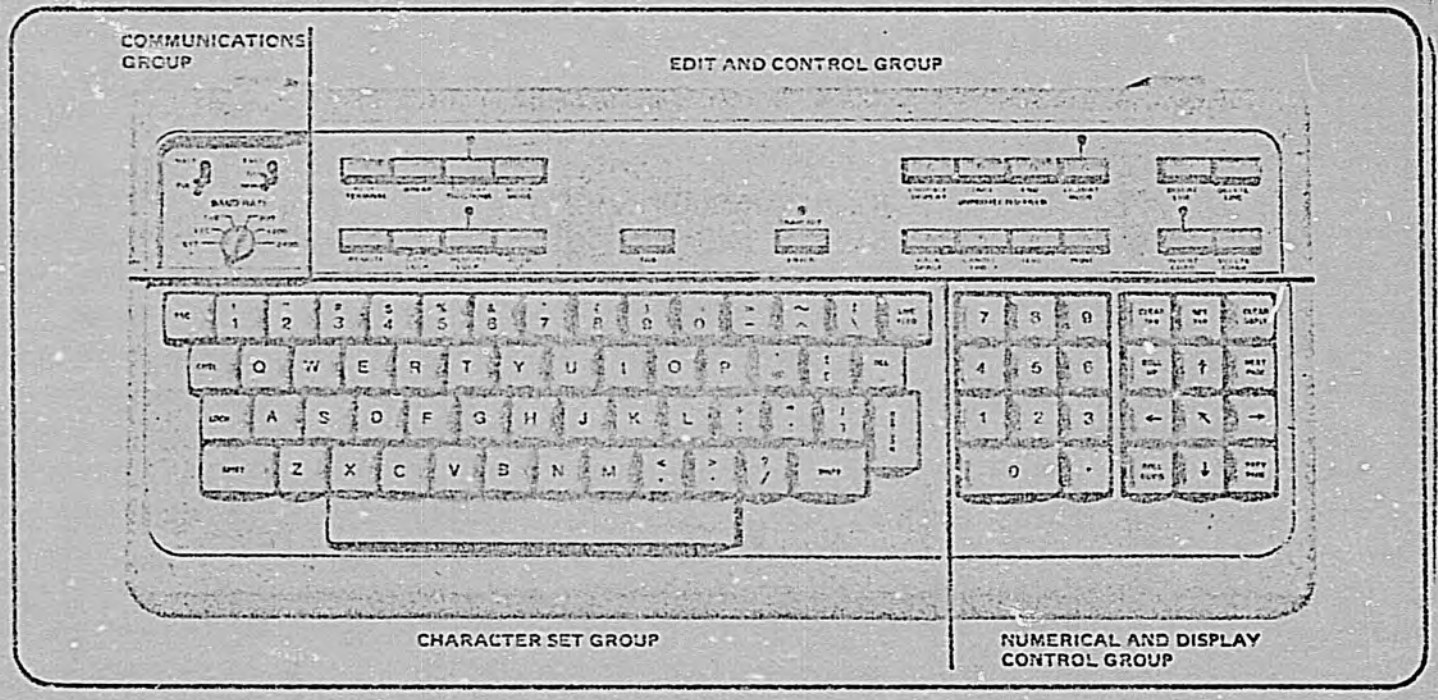
NOTE: If you dial one of the numbers and get a busy signal, try again with the other phone number. If the phone rings more than twice, try later (the computer is down).

FIGURE A-2

CRT KEYBOARD

2640 Operation

The 2640 terminal's detachable keyboard has been designed for ease of use and for the flexibility to fill the needs of a wide variety of applications. All keys, indicators and switches needed to operate with the 2640 at full capability are located on this keyboard and are grouped for convenient usage.



All 2640 keyboard functions are described in this section.

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Example A-1 displays the next set of procedures used ot log on. Entries typed by the analyst are marked by arrows. All other lines are responses by the computer.

Example A-1

LOGGING ON

```
→LOGON
  ENTER USER-ID/PASSWORD, ACCT-NO
→D515M8/1
  ENTER PROCEDURE NAME    INQ
  D515M8 LOGON IN PROGRESS AT 13:19:19 ON DECEMBER 2,  1977
  ON 11/1/77 THE 370/158 SYSTEM
  WAS IMPLEMENTED.   MVT SOFTWARE ON
   THE CURRENT SYSTEM IS COMPATIBLE WITH
  THE OLD 360/65 SOFTWARE.   IF YOU
   EXPERIENCE ANY PROBLEMS RELATED TO
  THE NEW EQUIPMENT, PLEASE NOTIFY
   MR. WILLIAM HARLEY X29650 FOR ASSISTANCE
  LOGON PROCEEDING
  LINE NUMBER = 006C
  READY
```

The statement "On 11/1/77... please notify Mr. William Harley x29650 for Assistance." is a broadcast message which all users receive when logging on. If there are no messages, the statement "No Broadcast Messages" is printed. If the user does not get logged on quickly, the message "Logon Proceeding" is printed periodically until the user is logged on. The last two lines inform the user that he/she is logged on. Only after the "Ready" is printed can any commands be entered.

NOTE: Depress the "Return" key to enter all commands. New users frequently type out a command and forget to hit the Return key. A command is not processed by the computer until this is done.

[OLOGON] is the very first command entered, as seen in Example A-1.* The computer then asks you for your ID number. An ID number is entered, and you are asked to enter a procedure name. The term "INQ" (for "INQUIRE") is always your response to this request. A few messages will then be printed. When the computer prints "Ready," you are logged on. An identification number will be issued to you before you begin to use the computer.

V. INQUIRE SEARCHES: BATCH MODE AND INTERACTIVE MODES

AID uses a system known as "Time Sharing Option" or "TSO" to process data. The generic term "time sharing" means a technique or system for furnishing computing services to multiple users simultaneously, providing rapid responses to each of the users. There are a group of TSO commands used by DI analysts. [LOGON] for example, is a TSO command. A TSO command can be entered after any "Ready." "INQUIRE" is a procedure within TSO. [FIND], [SCAN], [TAB] and [LIST] are all INQUIRE commands ([TAB] and [LIST] are sub-commands). When an analyst searches one of the files discussed above, he/she uses INQUIRE commands, both in Batch and Interactive Modes.

"Batch" and "Interactive" are the two ways in which searches are performed. An example can help to illustrate the differences between Batch and Interactive. Batch is analagous to playing chess by mail. When you make a move, you mail it to your opponent and go about your business. You do not have to wait at the chessboard for the reply.

---

*/ If someone has just logged off and the telephone link is already established, type [LOGON].

Using the Batch mode to do a search is similar. After you enter your INQUIRE command, you submit it as a "batch job." This job is assigned a certain priority and is placed in a queue. While you are waiting for the job to be processed, you can perform other searches, or you can log off of the terminal and work on other tasks. If you are logged on when a batch job is completed, a message to that effect is printed immediately. If you are not logged on when the job is processed, the message is printed when you log on again.

The Interactive mode is analagous to sitting down with a friend and playing that game of chess face to face. When you make a move, you receive a rapid response (for some chess players, and for some searches performed in the interactive mode, the response is not so rapid). When you perform a search in Interactive mode, you are placed completely in INQUIRE. Commands are processed immediately and your output is automatically printed out at the terminal. You cannot log off after entering a command on Interactive mode. You must wait for the answer at the terminal.

Both the Batch and Interactive Modes have their advantages and disadvantages. Section II of this Appendix discussed the difference between the FIND and SCAN commands. For a rapid response, the SCAN command should not be used while on Interactive. A SCAN can take a long time to execute and an analyst can make better use of his/her time by submitting all SCANs as batch jobs. If there is going to be a large output, it is also recommended that a batch job be used. Batch jobs can be "routed" to a printer where a printout can be obtained. Example A-2 displays the submission of a batch job and routing of that job to a printer. The arrows indicate commands entered by the analyst. In this example, the TEXT file is being searched for rural roads projects. To search a single file [EXEC 'D515LW.SINGLE.CLIST'] is always typed. You then

Example A-2

```
                SUBMISSION OF BATCH JOB, ROUTING IT TO PRINTER


EXEC 'D515L4. SINGLE CLTST'  'TEXT YOUR NAME 1'
ENTER INQUIRE SEARCH AND REPORT CRITERIA
FIND 'KEYSUBJ=RURAL ROADS', TAB PROJECT
TITLE
/*
JOB 832 (D515MBQG)  SUBMITTED
READY

ROUTE 832 REMOTE (12)
D515MBQG (JOB 832) EXECUTING CLASS B PRTY 5, ROUTED RM 12/LOCAL
READY
```

COMMENTS:

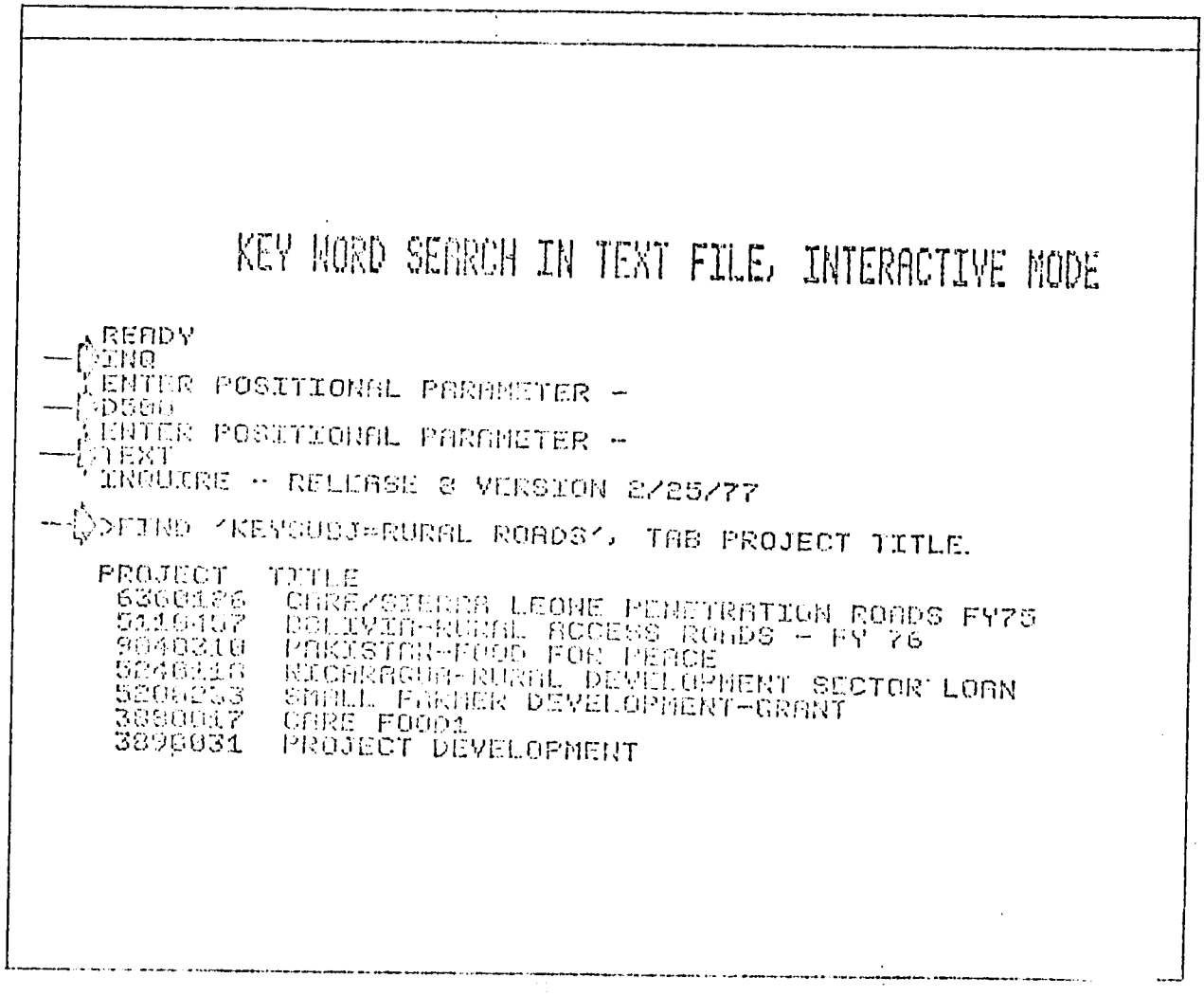
Note that the [FIND] command is two lines long. To type the second line of a command when entering a batch job, a space is typed after the field name "PROJECT" and the Return key is hit. The remainder of the command is then typed on the second line. A period is typed, and the Return key is hit again. The slash/asterisk combination enters the job.

type the name of the file (TEXT in this case), your name (up to a maximum of eight characters, no spaces), and the number of copies desired. If your search and report criteria (that, is your actual INQUIRE command) are more than one line long, type one space at the end of the first line and hit the return key.* Do not type past column 72 for batch input. At the end of the INQUIRE command, type a period, hit the return key, and type a slash and an asterisk. This procedure submits the batch job. Once you have a job number, you can route that job to a printer. "Remote(12)" is a printer located in Room 621, and as a rule jobs to be printed are routed there.

Example A-3 displays the same search of Example A-2 done in the Interactive mode. The Interactive mode places you completely in INQUIRE. TSO commands cannot be processed in this mode (with minor exceptions). Note that "PAISHIST," "PBAR," or "BREF" could all be substituted for "TEXT" in this example. You are in Interactive mode when you receive the "greater than" (>) sign. In order to type an INQUIRE command of more than one line, the last word of the first line must be followed by a space and a hyphen before the Return key can be depressed (the hyphen is not typed in the Batch mode). The space is omitted if the first line ends in a comma (this is also true of the Batch mode). In Interactive mode the output is printed out directly at the terminal. The "break" key is used to stop the output, and the user is returned to the Interactive mode. When in Interactive mode, do not type past column 72 on the teleterm unless the command [CLC] has been entered while in TSO ("Ready") mode.

*/ This is for batch jobs. A hyphen must be typed at the end of each line when in Interative mode. If the last character of the line is not a comma, a space must precede the hyphen.

Example A-3



COMMENTS:

The procedure for conducting a search of a single file in the Interactive mode is the same for the four files DS/DI uses. [INQ] and [D500] are always the first two entries, followed by the file name (in this case, TEXT). The command tells the computer to print the project numbers and titles of rural roads projects. As the title of Project 3880017 was being printed, the break key was depressed. This is printed as the colon/exclamation point combination. The computer returns to the Interactive mode, as denoted by the "greater than" sign (>). You are ready to enter another INQUIRE command.

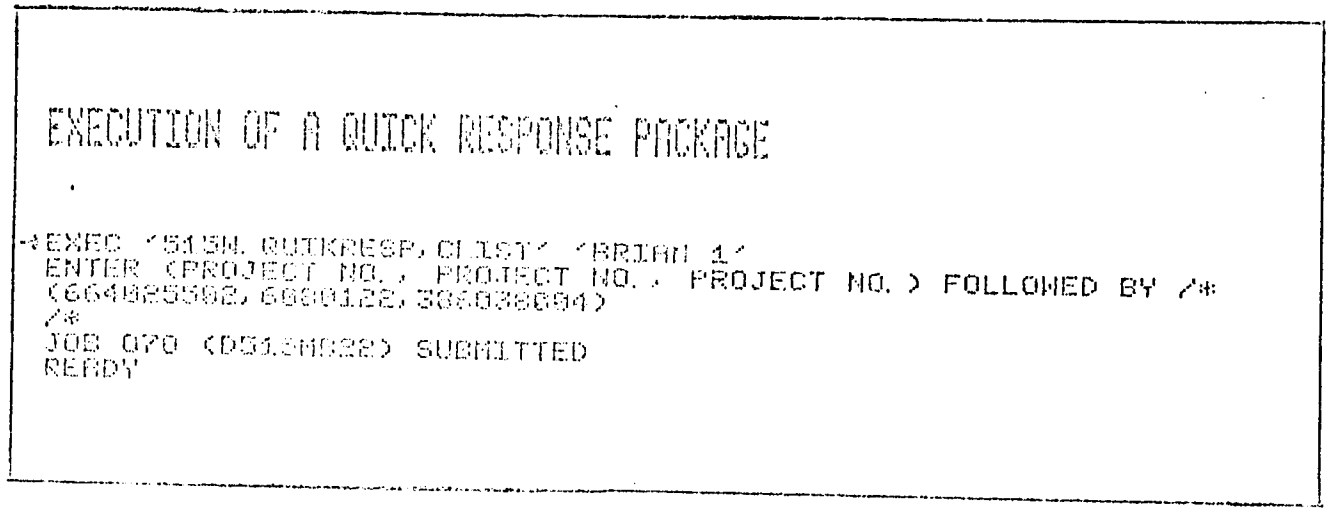
There can be no routing of output to the printer in Interactive. However, batch jobs can be printed out at the terminal. When the job has been processed, an [OUT] command is entered. For example, when Job 750 has ended, enter [OUT 750 DA(3) NOP]. If you have no more use for a batch job and you have not routed it to the printer, you must cancel it. [CAN 750] would cancel our example batch job.

In Chapter V of this manual, you learned how to assemble a quick response. Using the computer is an integral part of putting together a quick response (and a full package). The TEXT file is searched for similar and alternative projects. The BREF file is searched for knowledgeable individuals and institutions, evaluations, and anything else that exists in the physical project file. In doing a quick response, your initial search or searches of the TEXT file lead you to the decision of which projects to include. Example A-4 shows how to obtain a quick response report. In the [EXEC] command, you again type in your name and the number of copies desired as the last two entries. You then type in the seven or nine digit numbers of the projects to be included (Note 4) in the quick response. To go to a second line of project numbers, do not space after the last comma--simply hit the Return key. The job is submitted by entering the slash-asterisk combination. All quick responses should be routed to the REMOTE(12) printer.

Examples of the various commands and searches follow.

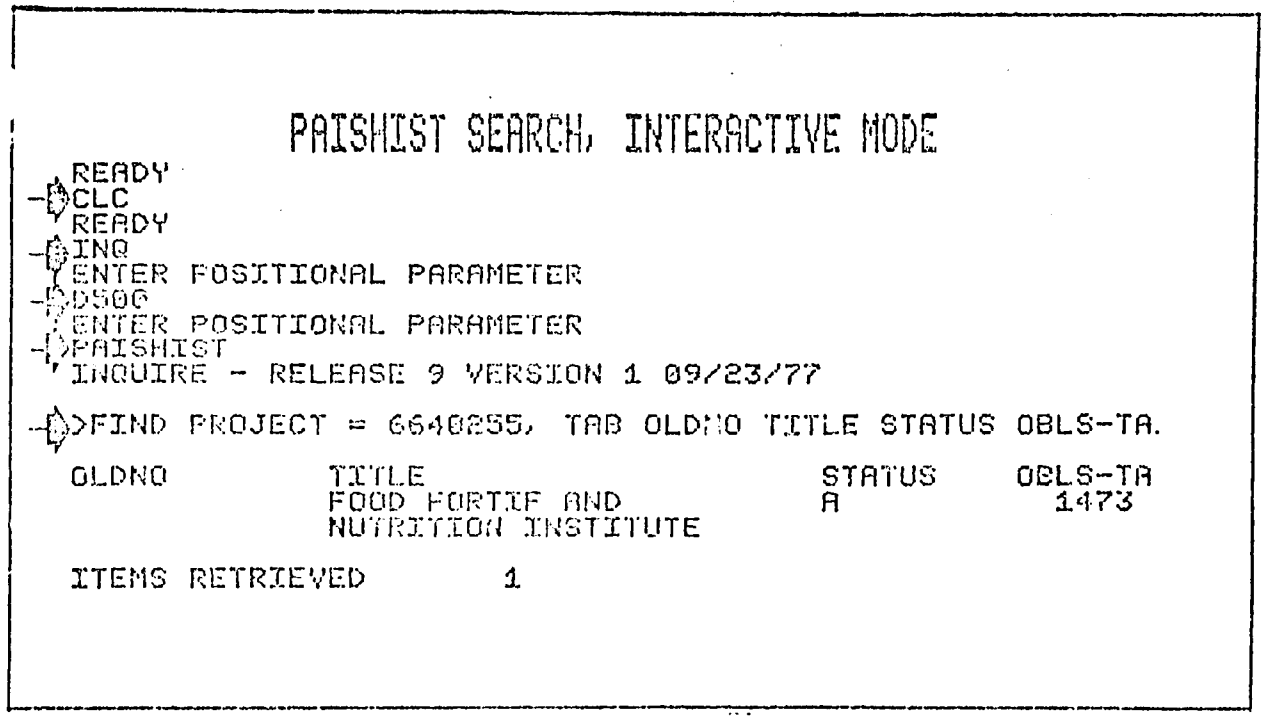
Example A-4

Execution of a Quick Response Package



COMMENTS: The EXEC command specifies that a quick response package is to be executed, that the person's name is "Brian", and one copy is to be printed. If you have a lot of project numbers to enter, simply end the first line with a comma and depress the Return key. Begin typing project numbers on the next line.

Example A-5



COMMENTS: This search is a direct query, using the project number to get the old project number, project title, project status, and amount of money obligated to the project to date, in thousands of dollars. Note that no field value was printed for old project number. This means that the project entered the system after the use of old project number was dropped. Note also that the command "CLC" was entered while the user was still in the TSO, or Ready mode. The user enjoys the full width of the terminal for input and output in the Interactive mode as a result of this command. "CLC" also expands the terminal width to its physical maximum for batch output at the terminal.

Example A-6

TEXT SEARCH, INTERACTIVE MODE, COUNT SUBCOMMAND

```
  READY
-)INQ
  ENTER POSITIONAL PARAMETER
-)D500
  ENTER POSITIONAL PARAMETER
  TEXT
  INQUIRE - RELEASE 9 VERSION 1 09/23/77
-)>FIND 'KEYSUBJ=RURAL ROADS', COUNT.

  ITEMS RETRIEVED      25
```

COMMENTS: This example is very similar to Example A-3, with the exception of the output subcommand. In A-3, required information was "tabbed." In this example, a COUNT of the number of projects fitting the search description is asked for. The COUNT subcommand is useful because you can determine the method for drawing out further information. For example, the above search yields 25 projects. This is far too many to have textual data printed out at your terminal. It would be better, if you are going to ask for narrative statements, to submit a batch job. On the other hand, if the above search had yielded only three projects, it would be best to retrieve further information right at the terminal. A batch job would of course be routed to a remote printer (see ROUTE example).

Example A-7

THE LINK LOGICAL OPERATOR

```
>FIND 'KEYSUBJ=RURAL ROADS' AND KEYTYPE IS 1 AND -
(KEYSUBJ IS 'RURAL ROADS' LINK KEYTYPE IS 1) ,TAB -
PROJECT9   TITLE

PROJECT9   TITLE

526006000 PARAGUAY-BRAZIL ROAD REHABILITATION

ITEMS RETRIEVED        1
```

COMMENTS: LINK is a more specific version of the logical operator AND. The LINK term establishes and AND operation between corresponding elements of repeating fields. In the example above, the keysubj 'rural roads' is linked with a keytype of 1. The table on page A-14 shows that a keytype of 1 means that the keysubj is associated only with the problem. If the logical operator AND had been used, all projects with keytypes of 1 and a 'rural roads' keysubj would have been retrieved, even if the keytype of 1 was not associated with the 'rural roads' keysubj. With LINK, only those rural roads projects with a keytype of 1 are retrieved. This procedure is useful for specifiying further key word searches which have yielded a large number of projects.

Example A-8

BREF SEARCH, INTERACTIVE MODE

```
READY
→INQ
ENTER POSITIONAL PARAMETER -
→DROP
ENTER POSITIONAL PARAMETER -
→BREF
INQUIRE - RELEASE 9 VERSION L 09/23/77

→>FIND KEYSUBJ-FORAGE, LIST PROJECTS BTYPNAM ORGN -
TITLE-EN AUTHOR-I.

ITEM                    1004
PROJECTS(  1)    931014400
    BTYPNAM              KNOWLEDGEABLE INSTITUTION
ORGN                    UNIVERSITY OF FLORIDA

ITEM                    1023
PROJECTS(  1)    664029390
BTYPNAM                 BIBLIOGRAPHY

ITEM                    1003
PROJECTS(  1)    511835402
BTYPNAM                 END-OF-TOUR REPORT
ORGN                    UTAH STATE UNIVERSITY
AUTHOR-I(  1)    HOOPES, KEITH N.
```

COMMENTS: Entering the Interactive mode involves the same procedure for all of the data bases. Notice the similarity between this example and examples A-3 and A-7. The information that you need determines which file you choose to search. As explained on page A-12, the BREF file is frequently used to retrieve evaluation data and the names of individuals and organizations that have worked on AID contracts. Notice that the field BTYPNAM contains the description of each item retrieved. Note also that since this search is performed in the Interactive mode, the first line is ended by a space and a hyphen. If the first line ends in a comma, the space is not necessary. As with all Interactive searches, the command ends with a period.

Example A-9

SUBMISSION OF INQUIRE SEARCHES
FROM EDIT DATA FILES, BATCH MODE

```
READY
 EXEC '515LW,SINGLE2,CLIST' 'TEXT BRIAN 1'"
ENTER FILE NAME. E.G.//DSN=D515LW,WID,DATA AND/*
//DSN=D515MB,TEXTFORM,DATA
/*
JOB 356 )D515MBAG)  SUBMITTED
READY
```

COMMENTS: When you enter a batch job, one typing error means that the entire job has to be typed over and entered. However, after you have gained some experience at the computer, there is a procedure which eliminates this problem. It is the EDIT routine, which is employed in the Ready mode. It is not covered here, but the EDIT procedure allows you to enter your INQUIRE statement into a data file where it can be edited with a variety of commands. The above example shows how to enter such a statement as a batch job. In this case, a single file is being queried (TEXT). Your search and output commands are stored in an EDIT file named "textform." If there is an error in the INQUIRE statement, the entire statement does not have to be retyped. The EDIT file is opened and the mistake is corrected with an EDIT command. The job is then re-entered like the above example.

Example A-10

LOGICAL OPERATORS, INTERACTIVE MODE

```
—>FIND KEYSUBJ=IRRIGATION AND 'KEYSUBJ=SMALL FARMERS',-
—>COUNT.

  ITEMS RETRIEVED        10
—>FIND KEYSUBJ=IRRIGATION OR 'KEYSUBJ=SMALL FARMERS',-
—>COUNT

  ITEMS RETRIEVED
—>FIND KEYSUBJ=IRRIGATION AND NOT 'KEYSUB=SMALL FARMERS',-
—>COUNT.

  ITEMS RETRIEVED        32
```

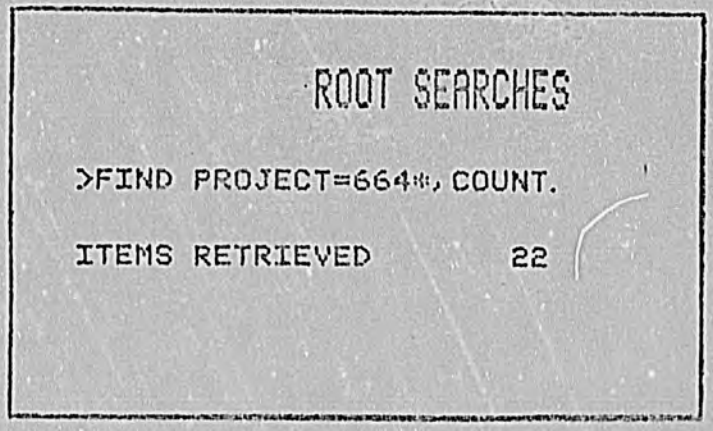
COMMENTS: The three major logical operators, AND, OR, and AND NOT are depicted here. AND is used to retrieve the number of projects in the TEXT file which contain both "irrigation" and "small farmers" as key word descriptors. 170 projects contain either key word as a descriptor, and 32 irrigation projects do not have "small farmers" as a key word.

Example A-11

```
                    MACROS

>FIND PROJECT=5150121, TAB PROJECT9 TITLE.

  PROJECT9          TITLE

   515012100          NUTRITION PROGRAM

>FIND PROJECT=3670126, TAB & TAB.

  PROJECT9          TITLE

   367012601          INTEGRATED BASIC HEALTH SERVICES-76

   367012600          INTEGRATION OF HEALTH SERVICE-73

>FIND &SEARCH, TAB PROBLEML.


  PROBLEML

  METHOD TO DELIVER HEALTH SERIVCES HAS BEEN FOUND, BUT  LACK  OF  SOUNI
  MANAGERIAL CAPABILITY HINDER IMPLEMENTATION ON NATIONAL SCALE.

  DELIVERY OF HEALTH SERVIES IS LIMITED BECAUSE  OF  SCARCITY  OF  HUMAI
  ANDFINANCIAL   RESOURCES,   MANAGERIAL   CAPABILITY   IS   WEAK,   ANI
  BASICDISEASE AND DEMOGRAPHIC DATA ARE LACKING.
```

COMMENTS: A macro is a label associated with a piece of command statement text that can be used as an abbreviation for the text. In the above example, "&tab" is an abbreviation for "project9 title." "&search" is an abbreviation for "project=3670126." These two macros are "automatic," that is, they are available in INQUIRE and do not have to be created by you. All output subcommands have automatic macros. Consequently, there are "&LIST," "&SORT," etc. "&COMMAND" will abbreviate the entire command. "&command,tab probleml" can replace "find &search" above. You will receive a warning that the new "tab" subcommand overrode the previous one, but the search will work. If you want to output more data after doing a "count" in Interactive, use "&search" to repeat the search.

Example A-12



COMMENTS: Fields with prefix keys, such as PROJECT and KEYSUBJ,are queried using the FIND command. Sections II-A and II-B of the Appendix showed the differences between sequential queries and direct searches using prefix keys. The latter is faster, but the former offers more flexibility in the searches. In a sequential query you can scan parts of fields in a number of different ways. Root searches allow you to do this to a certain extent in direct searches. With a root search, the part of the field that is to be retrieved is specified in the search. In the above example, the analyst wants all Tunisia projects. The asterisk allows the analyst to search interactively and directly. The alternatives are to SCAN (much slower) or to "OR" every Tunisia project (slow and insane). As was noted, any prefix key can be used in a key search. Say a large number of key words begin with "irrig" and you want to retrieve all of the projects with "irrig" key words. Enter FIND KEYSUBJ=IRRIG* as your search command.