

Bigelow

9320100

PA-PAV-554

100-46424

09001-020-013

May 13, 1983

REQUIREMENTS STUDY FOR A PVO INFORMATION SYSTEM

Bureau For Food For Peace  
and Voluntary Assistance

Agency for International Development  
Washington, D.C.

(... 9320100 - 12 222-100)

BOOZ·ALLEN & HAMILTON INC.

4330 EAST WEST HIGHWAY · BETHESDA, MARYLAND 20814-4455 · TELEPHONE: (301) 951-2200 · TELEX II: 710-824-0552

# BOOZ·ALLEN & HAMILTON INC.

4330 EAST WEST HIGHWAY · BETHESDA, MARYLAND 20814-4455 · TELEPHONE: (301) 951-2200 · TELEX II: 710-824-0552

May 13, 1983

Mr. Charles L. Gladson  
Deputy Assistant Administrator  
Bureau for Food for Peace and  
Voluntary Assistance  
Agency for International Development  
Room 223  
1400 Wilson Boulevard  
Arlington, VA 20523

Subject: Requirements Study for a PVO Information System;  
IOC No. AID/OTR-I-1860, Work Order No. 13

Dear Mr. Gladson:

Booz, Allen & Hamilton Inc. is pleased to submit this final report on the requirements for a new PVO information system in the Bureau for Food for Peace and Voluntary Assistance.

This system requirements analysis represents the first step in the system development cycle. The purpose of this report is to describe what the proposed system must do. The analysis determined:

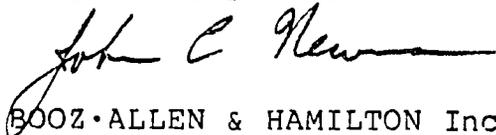
- Information Requirements -- Identification and categorization of information needs of potential users and the purposes the needed information serve.
- Information Resources -- Identification of existing and potential sources of information needed, assessment of collectability problems in utilization of the resources and recommended actions to overcome them.

The report also articulates an overall system concept which describes the necessary data base(s), inputs, outputs and the candidate data applications the system would have. Candidate hardware and management issues are also discussed. This information should prove helpful to Bureau management as it considers the next phase of system development, design, which will determine in detail how the system requirements will be met.

Mr. Charles L. Gladson  
May 13, 1983  
Page Two

We wish to express our appreciation for the thoughtful contributions Bureau staff have made to this effort. Their active interest and involvement in the requirements analysis strengthened the study's product. Please let me know if we can be of any further assistance to the Bureau.

Very truly yours,

  
BOOZ·ALLEN & HAMILTON Inc.

John C. Newman  
Vice President

cc: Nancy McKay

T A B L E O F C O N T E N T S

|   | <u>Page</u> |
|---|-------------|
| I. INTRODUCTION                         | I-1         |
| II. BACKGROUND                          | II-1        |
| III. ASSESSMENT OF INFORMATION NEEDS    | III-1       |
| IV. ASSESSMENT OF INFORMATION RESOURCES | IV-1        |
| V. PVO INFORMATION SYSTEM REQUIREMENTS  | V-1         |

# I N D E X   O F   E X H I B I T S

|        |  | <u>Page<br/>Number</u> |
|--------|--|------------------------|
| III-1  | Overview of PVO Information Needs by Major Users   | III-3                  |
| III-2  | Information Needs for Eligibility for Registration and PVO Grants  | III-4                  |
| III-3  | Information Needs for PVO Technical Capabilities   | III-5                  |
| III-4  | Information Needs for Plans for PVO Role   | III-6                  |
| III-5  | Information Needs for Results of PVO Activity  | III-6                  |
| III-6  | Information Needs for Resources Available to PVOs  | III-7                  |
| III-7  | Information Needs for AID Project Information  | III-8                  |
| III-8  | Major Characteristics of PVO Information Needs   | III-10                 |
| III-9  | Recommended Priority for Sequence of Development   | III-11                 |
| III-10 | Example of Elements to Satisfy PVO Information Needs   | III-12                 |
| IV-1   | Summary of Existing PVO Information Resources by Information Need  | IV-1                   |
| IV-2   | Assessment of Resources for Percent of U.S. Government Funding of Overseas Program of Registered U.S. PVOs | IV-2                   |
| IV-3   | Assessment of Resources for Registered U.S. PVOs' Financial and Management Viability                       | IV-3                   |

Page  
Number

|      |   |       |
|------|---|-------|
| IV-4 | Assessment of Resources for Registered<br>U.S. PVO Technical Capabilities | IV-5  |
| IV-5 | Assessment of Resources for AID PVO<br>Program Performance Evaluation     | IV-12 |
| V-1  | Candidate PVO Information System<br>Applications                          | V-2   |
| V-2  | General Selection Criteria for Hardware/<br>Software Options              | V-8   |
| V-3  | Preliminary Assessment of Appropriate<br>Hardware Candidates              | V-8   |
| V-4  | Overview of PVO Information System Concept                                | V-13  |

## EXECUTIVE SUMMARY

This report presents the results of Booz, Allen & Hamilton Inc.'s study to assess the information needs and potential resources for a private and voluntary organization (PVO) information system for AID's Bureau for Food for Peace and Voluntary Assistance (FVA). This requirements analysis represents the first step in the system design cycle. Its primary purpose is to clearly define what the proposed system must do. The specific means for meeting the requirements are operationalized in later system design, development and implementation steps.

### 1. THE IMPETUS FOR THE NEW PVO INFORMATION SYSTEM IS THE PVO POLICY PAPER RELEASED IN SEPTEMBER 1982

One of the major topics discussed in the policy paper was the need for better PVO information and for strengthening the Bureau's role as the Agency's principal information broker in PVO matters. The Bureau, especially through the Office of Private and Voluntary Cooperation (PVC), maintains an extensive network of communications within the Agency, the PVO community and other related groups. These information flows are critical to AID's PVO program, which is particularly diverse. The task of centrally identifying, referencing, and accessing PVO information is difficult in this multidimensional program directly managed by multiple AID/W offices as well as by overseas missions. Given these challenges, it was determined that a PVO information system, to be managed in PVC, was necessary to:

- . Disseminate information about AID's PVO programs as a means of promoting an Agency-wide perspective on PVOs' roles in development assistance
- . Broker information between PVOs and AID through an active two-way information flow
- . Create an institutional memory which incorporates many features of the largely informal and unsystematic existing information exchanges
- . Improve responsiveness and turnaround time to inquiries about PVOs and AID-funded PVO activities.

These objectives warrant an information system which serves more than FVA/PVC's own grant program management information needs.

The exhibit on the following page provides an overview of the results of this requirements analysis. The following sections of this executive summary highlight major findings and conclusions and reference the appropriate chapter of the report where they are discussed in detail.

2. FIFTEEN PVO INFORMATION NEEDS IN SIX MAJOR CATEGORIES HAVE BEEN IDENTIFIED TO MEET CRITICAL REPORTING AND DECISION MAKING REQUIREMENTS OF PROSPECTIVE USERS IN AID AND IN PVOs

An initially long list of potential information needs, gathered from extensive document reviews and over 35 interviews, was scrubbed to focus study efforts on those areas where clear potential benefit from an information system, whether automated or manual, was indicated.

The first column of the exhibit presents these 15 different kinds of PVO information needs, which are clustered into 6 categories. Chapter III of the report assesses these information needs in terms of:

- . The nature of information required by multiple prospective users, particularly:
  - FVA/PVC
  - AID's Bureau for Program and Policy Coordination
  - Other AID/W bureaus and offices
  - USAIDs
  - PVOs
- . The existing or intended use of the information
- . The type and volume of information necessary to meet users' requirements.

The 15 individual PVO information needs represent substantial requirements justified by their use in meeting document reporting requirements or to permit a knowledgeable assessment of "the facts" to make a critical decision. They can, however, be differentiated in terms of their priority for sequential development in the PVO information system. Chapter III concludes by presenting, in Exhibit III-9, following page III-11, the study team's recommendations on those PVO information needs which should be immediately addressed and those for which development can be initiated later if it is necessary to incrementally build the system.

EXHIBIT  
Overview of PVO Information System Requirements

| <u>Information Need by Category</u>                          | <u>Primary Resources</u>                                      | <u>Candidate Application</u>   | <u>Automated or Manual Application</u>              |
|--|---|--|---|
| <u>I. ELIGIBILITY FOR REGISTRATION AND PVO GRANTS</u>        |   |  |   |
| Percent U.S. Government Funding of PVO Overseas Program      | Revised C-100   | PVO Registry Lists   | Automated Mainframe;<br>OIS Access                  |
| Registered PVO Financial and Management Viability            | Registration Materials  | PVO Registry Lists   | Automated Mainframe;<br>OIS Access                  |
| <u>II. PVO TECHNICAL CAPABILITIES</u>                        |   |  |   |
| U.S. Registered PVO Capabilities                             | Evaluations, Audits, etc.                                     | Profiles of Registered PVO Qualifications and Technical Capabilities | Automated Mainframe;<br>OIS or Microcomputer Access |
|  | DIS   | PVO Project and Other Documentation by PVO                           | Automated Mainframe;<br>OIS Access                  |
|  | PVC Manual Records<br>TAICH                                   | Key Staff Contact Roster by PVO                                      | Automated Mainframe;<br>OIS Access                  |
| Local or Indigenous Capabilities                             | Evaluations, Audits, etc.<br>Project Records<br>Mission Staff | Profiles of Local PVO Characteristics                                | Automated Mainframe;<br>OIS Access                  |
| Other PVO and Private Non-Profit Organizations' Capabilities | TAICH<br>PVC Manual Records                                   | Profiles of Selected Other PVOs and Private Non-Profits              | Automated Mainframe;<br>OIS Access                  |
| <u>III. PLANS FOR PVO ROLE</u>                               |   |  |   |
| AID PVO Program and Funding Priorities                       | CDSS<br>Mission Staff   | Profiles of PVO Priorities for Funding by Country                    | Automated Mainframe;<br>OIS Access                  |
| Host Country PVO Activity Priorities                         | CDSS<br>Mission Staff   | Profiles of PVO Priorities for Funding by Country                    | Automated Mainframe;<br>OIS Access                  |
| <u>IV. RESULTS OF PVO ACTIVITY</u>                           |   |  |   |
| AID-Funded PVO Project Evaluation                            | Evaluations, Audits, etc.<br>DIS                              | Evaluations, Audits by PVO, by Country and by Sector                 | Automated Mainframe;<br>OIS Access                  |
|  |   | Special, One-Time Only Analyses                                      | Automated Mainframe;<br>OIS or microcomputer Access |
|  |   | PVO Project and Other Documentation by PVO                           | Manual  |

EXHIBIT  
Overview of PVO Information System Requirements (Continued)

| <u>Information Need by Category</u>             | <u>Primary Resources</u>   | <u>Candidate Application</u>  | <u>Automated or Manual Application</u>   |
|---|--|---|--|
| AID-PVO Program Evaluations                     | Evaluations, Audits, etc.<br>DIS   | Evaluations, Audits by PVO, by Country and by Sector<br>Special, One-Time Only Analyses<br><br>PVO Project and Other Documentation by PVO | Automated Wang OIS<br><br>Automated Mainframe; OIS or Microcomputer Access<br>Manual                     |
| <u>V. RESOURCES AVAILABLE TO PVOS</u>           |  |   |  |
| AID Program and Procedures                      | AID Handbooks  | Frequently Referenced AID Handbook Procedures   | Manual   |
| Technical Assistance Resources                  | PVC Manual Records   | Technical Assistance Resources by Technical or Functional Skill Area  | Manual   |
| <u>VI. AID PVO PROJECT INFORMATION</u>          |  |   |  |
| AID Funding for PVO Activities by Appropriation | PBDS<br>COORS<br>Project Officers<br>PVO Liaison Committee Members<br>AID/W DP Officers<br>Mission Controllers | Inventories of AID-Funded Projects by Country, by PVO, and by Sector<br><br>Special, One-Time Only Analyses                               | Automated Mainframe; OIS or Microcomputer Access<br><br>Automated Mainframe; OIS or Microcomputer Access |
| AID-Funded PVO Projects by Country              | PBDS<br>COORS<br>Project Officers<br>PVO Liaison Committee Members<br>AID/W DP Officers<br>Mission Controllers | Inventories of AID-Funded Projects by Country, by PVO, and by Sector<br><br>Special, One-Time Only Analyses                               | Automated Mainframe; OIS or Microcomputer Access<br><br>Automated Mainframe; OIS or Microcomputer Access |
| AID-Funded PVO Projects by Sector               | PBDS<br>COORS<br>Project Officers<br>PVO Liaison Committee Members<br>AID/W DP Officers<br>Mission Controllers | Inventories of AID-Funded Projects by Country, by PVO, and by Sector<br><br>Special, One-Time Only Analyses                               | Automated Mainframe; OIS or Microcomputer Access<br><br>Automated Mainframe; OIS or Microcomputer Access |

2

EXHIBIT  
 Overview of PVO Information System Requirements (Continued)

| <u>Information Need by Category</u> | <u>Primary Resources</u>  | <u>Candidate Application</u>   | <u>Automated or<br/>Manual Application</u>   |
|-------------------------------------|---|--|--|
| AID-Funded PVO Projects by<br>PVO   | PBDS<br>COORS<br>Project Officers<br>PVO Liaison Committee<br>Members<br>AID/W DP Officers<br>Mission Controllers | Inventories of AID-Funded Projects by<br>Country, by PVO, and by Sector<br><br>Special, One-Time Only Analyses | Automated Mainframe;<br>OIS or Microcomputer<br>Access<br><br>Automated Mainframe;<br>OIS or Microcomputer<br>Access |

3. EXISTING AUTOMATED AND MANUAL RESOURCES SUPPLY BASIC PVO INFORMATION, BUT THERE ARE SEVERAL AREAS WHERE CURRENT RESOURCES MUST BE IMPROVED TO FULLY RESPOND TO THE INFORMATION REQUIREMENT

The second column of the exhibit highlights the major resources with good potential for meeting the identified PVO information needs. The exhibit shows a variety of types of resources, both manual and automated. In almost every PVO information need area, study participants indicated a continued dependence on descriptive and evaluative information (often verbally collected from key AID and PVO staff). This kind of information is considered a necessary supplement to documents and data bases since the specific information needed is frequently either so recent that it is not always captured in time in such resources or requires interpretation.

Chapter IV assesses the various resources which could satisfy the identified information needs and discusses the problems in collecting or using the information available from each of these resources. Finally, Chapter IV identifies those sources with the best potential and suggests actions necessary to overcome any problems associated with them.

4. THE SYSTEM CONCEPT THAT EMERGES IS AN AUTOMATED PVO DATA BASE, SUPPORTED BY BOTH MANUAL AND AUTOMATED INFORMATION RESOURCES, WHICH CAN BE DESIGNED FOR ACCESS THROUGH SEVERAL TYPES OF HARDWARE

The final chapter of the report summarizes the requirements for a PVO information system and translates them into a system concept which provides a framework for the subsequent phase of system design. The third and fourth column of the exhibit provide background for the PVO information system concept by:

- . Indicating how 16 candidate applications tie primary resources to information needs in order to provide needed system capabilities and reports
- . Identifying the 12 applications which appear suitable for automation at this time.

Chapter V describes each candidate application, provides examples of how they would be used to answer questions frequently raised about AID's PVO program, and identifies suitable hardware and software options, for the automated applications, based on general criteria for selecting among their capabilities and limitations.

## I. INTRODUCTION

This report presents the results of a study to develop requirements for a private and voluntary organization (PVO) information system for the Agency for International Development (AID). Conducted for AID's Bureau for Food for Peace and Voluntary Assistance (FVA) by Booz, Allen & Hamilton Inc., the study is one of several implementing actions taken by the Bureau since the issuance of the Agency's PVO policy paper in September 1982.

The PVO policy paper provides the most authoritative statement of the role of information in the Agency's PVO program, and, specifically, the Bureau's role in its gathering, processing, storage, and dissemination. The policy paper strengthens FVA/PVC's role in information resource management:

- . Be a more active resource to AID on PVOs and receive and provide information on PVO capabilities, evaluations and information dissemination
- . Receive information more systematically from AID missions and offices
- . Continue to play a brokerage function, helping to put staff in PVOs and missions in touch with one another
- . Provide assistance to PVOs on AID procedures and priorities
- . Provide technical assistance to the rest of AID on designing and evaluating PVO programs.

In these capacities, FVA/PVC emerges in the role of the Agency's PVO "information broker".

This establishment of a more central, comprehensive, systematic, and active information role is by no means totally new to the Bureau. Documentation reviewed for this study showed work in this direction as long as six years ago. In the interim period, a number of changes have made the improved management of PVO information more urgent--and possible. PVO involvement in the development process has diversified into many roles and enlarged in size; PVOs have become increasingly capable of working with, or alongside, Agency efforts in a number of different capacities. At the same time, the availability of

funding has become more critical, and policy dictates that more systematic attention be given to PVO's non-U.S. government funding levels, as well as to the total amount of Agency funds devoted to PVOs.

An important ingredient in the improved management of the PVO program is the increased capability to manage information. In the last few years, the Agency has made substantial gains in thinking through and implementing information systems, and the nature and extent of automation support for this function has been significantly enhanced. A number of intra-bureau and Agency-wide initiatives have been undertaken to better exploit existing information. For example, the Portfolio Analysis Review project, under the direction of M/SER/IRM, is underway to better manipulate and analyze some of the core information resources which are essential to the operating bureaus and missions. Automated support has been increased through the acquisition and use of advanced office automation equipment, including sophisticated word and text processors and microcomputers. In addition, steps are being taken to upgrade the capacity of the Agency's mainframe computer. All of these conditions favor the timing of this project to define the requirements for a PVO information system.

1. THE PURPOSE OF THIS STUDY WAS TO IDENTIFY THE INFORMATION NEEDS AND POTENTIAL RESOURCES FOR A PVO INFORMATION SYSTEM TO BE ESTABLISHED IN FVA/PVC

Initiated in late February 1983, this study was intended to determine what specific information needs a PVO information system should meet. From the start, it was recognized that users of the system's information would include not only the FVA Bureau, other bureaus, and the missions, but also PVOs, the Congress, and other external groups.

The study addressed the following key questions:

- . What information is needed?
- . By whom, for what purpose?
- . With what frequency and volume?
- . What resources (sources of information) are available (or need to be created) to meet the needs?

- . What information needs are suitable for automation support, and what kind of automation is most appropriate?
- . What are the management requirements for the system?

In order to create a workable framework for analysis, a categorization scheme of PVO information needs was developed.

2. THE SCOPE OF THIS REQUIREMENTS STUDY REPRESENTS THE FIRST PHASE OF A SYSTEM DESIGN AND DEVELOPMENT PROCESS

The most important contribution of this study is the systematic gathering, analysis, and organization of information needs, and then relating them to information resources. The results identify what the system is supposed to do--its requirements.

Following the steps of the system development cycle, described in Exhibit I-1, on the following page, the Bureau will next have to determine how these requirements can be operationalized. This subsequent phase, customarily known as the design phase, uses requirements as a foundation, and exhaustively deals with the issues of the origination, input, processing, storage, and generation of data. Among other problems dealt with in the design phase, the technical characteristics of data collection techniques and the compatibility of data bases are dealt with, when necessary, down to the level of data elements.

Following approval of a design, development is undertaken. Development comprises the activities to flesh out individual automated applications (through software), preparation of necessary manual procedures, development of detailed management arrangements, design of report formats, and the like.

Implementation includes the activities to get the system "up," including acquiring and installing the hardware, loading the software for applications, and conducting training.

These phases comprise a continuum of effort, with go/no-go decisions and the opportunity to re-direct or modify at the end of each phase. The present requirements study, however, sets the basic direction of the system by comprehensively developing statements of information needs to which the system must respond.

EXHIBIT I-1  
The Phases of the System Development Process

| <u>PHASE</u>   | <u>ACCOMPLISHMENT</u>   |
|----------------|---|
| Requirements   | Determines what the system is supposed to do, for whom, in what fashion.  |
| Design         | Details and operationalizes the requirements into a detailed framework describing how the system will work.<br><br>Feasibility assessments are undertaken when necessary, for example, to determine if two existing data bases can be combined. |
| Development    | After approval of the design, all aspects of the system are detailed and documented and necessary programs are written.   |
| Implementation | Equipment is installed, software is loaded, tested and refined, management arrangements put in place, and training conducted.   |

3. THE STUDY'S RESULTS ARE BASED ON EXTENSIVE INTERVIEWS AND DOCUMENT REVIEWS IN THE FVA BUREAU, OTHER AID OFFICES, AND WITH PVOS, IN THEIR ROLES AS USERS, SOURCES, AND DISTRIBUTORS OF INFORMATION

The study began with some initial interviews within FVA to determine a set of information categories which would provide a framework for characterizing information needs and resources. Throughout the course of the study, this scheme was subject to refinement, and resulted in a set of six needs categories.

In all, 35 interviews were conducted:

- . Within FVA/PVC (14)
- . Other elements of FVA (6)
- . Other AID/W bureaus (8)
- . PVOS (7).

*No returned Mission Staff!*

Depending on the interviewee's position, the interviews were focused on information needs, information resources, and problems in collecting and using available information. Because the study effort was intended to make the most of existing information resources, the strengths and weaknesses of existing data bases, information handling procedures, and reports, were of particular interest. In all cases where needs were expressed, the study team sought to link a specific expressed need with a particular function, work process, or report.

The analysis included an evaluation of information needs to, among other things, determine and identify all users with the same or related needs, and to determine what needs could be met by existing information, regardless of whether a method presently exists to provide that information to the users.

With respect to the PVOS' information needs and resources and missions' needs and resources, there was a limited opportunity for direct contact. As originally planned, the study team depended heavily on information provided by FVA and other AID staff who have long-standing and frequent contact with PVOS and missions, and, with respect to the latter, have served in the field.

4. THE STUDY'S RESULTS ARE PRESENTED IN THE FOUR FOLLOWING CHAPTERS

Chapter II provides necessary background for the PVO information system, summarizing prior efforts, and the organizational setting in which the system will operate.

Chapter III systematically arrays PVO information needs, using the categorization scheme.

Chapter IV assesses information resources, identifies collectibility problems, and suggests actions necessary to overcome them.

Chapter V provides conclusions on appropriate uses of automation resources for PVO information, presents an overall PVO information system concept, and describes related management and personnel needs. This chapter also discusses the next steps in the information system development process, the design phase.

## II. BACKGROUND

This chapter describes the background for this study, assesses the Bureau's previous automated application for PVO information, and discusses several factors which influence FVA's system alternatives.

1. THE MAJOR IMPETUS FOR THE STUDY IS THE PVO POLICY PAPER WHICH CONCLUDED THAT SUCH AN INFORMATION SYSTEM IS NEEDED TO SUPPORT FVA'S ROLE AS THE AGENCY'S PRINCIPAL INFORMATION RESOURCE AND BROKER IN PVO MATTERS

The September 1982 PVO policy paper spoke directly to the need for an adequate flow of PVO information within AID and between AID and the PVO community, and called upon the FVA Bureau, which is responsible for implementing PVO policy in the Agency, to develop a management and information system. The policy paper's conclusions that PVO information exchanges were inadequate is understandable given the particular complexity of the PVO program, even by AID's standards. The Agency has a variety of forms of PVO support, resulting in a complicated network of possible funding relationships an individual PVO can have with the Agency. The multiplicity of funding relationships creates the interest in and need for PVO information in several other bureaus and offices in AID/W, as well as in the missions.

The establishment of a central source in FVA for Agency information in all PVO-related matters is one of several program and management objectives being undertaken to strengthen the Agency's PVO program. The FVA Bureau is implementing recommendations for a new organizational structure. A new unit has been established in PVC to serve as the Agency's PVO information resource. This unit, the Information Services and Technical Assistance Coordination Division, will be responsible for collecting, developing and maintaining PVO information. Its role includes both responding to information requests and distributing useful PVO program information to AID/W offices and bureaus, the missions and PVOs.

While this division will serve as the central source in improved PVO information flows, the need for additional mechanisms to more systematically channel PVO information to FVA/PVC has also been recognized. The role of PVC project officers has been clearly defined to include Agency-wide monitoring and backstopping support for PVO activities. PVC project officers serve as reference sources for

PVO activities in specific countries as well as for all AID activities undertaken by particular PVOs. In their dual roles, PVC project officers will be both suppliers as well as consumers of information in the PVO system. A similar role has been established for members of the PVO Liaison Committee. An officer has been identified in each bureau to serve as the recognized point of contact in the Agency's PVO information network.

2. THE PRIMARY OBJECTIVE OF THE PVO INFORMATION SYSTEM IS TO PROVIDE AN AGENCY-WIDE PERSPECTIVE ON AID'S PVO PROGRAM WHICH IMPROVES INFORMATION ACCESSIBILITY AND TURNAROUND TIME

Some of the most critical characteristics for a PVO information system, as defined in the scope of work for this study, are:

- . To disseminate information about PVO programs gathered by various AID offices and bureaus, missions and PVOs, as a means of providing an Agency-wide perspective
- . To broker information between PVOs and AID through an active two-way information system
- . To create an "institutional memory" which incorporates many features of the existing, informal personal information exchange
- . To improve turn-around time in responding to inquiries.

These objectives clearly require a system which serves as more than a management information system for PVC's own grant program management. It must be more extensive in scope in order to establish and promote the resources supporting the brokerage role FVA must play in channelling information to a wide range of users within the AID-PVO network.

3. THE EXISTING MAINFRAME APPLICATION PROVIDING PVO INFORMATION IS OBSOLETE DUE TO THE NEW INFORMATION REQUIREMENTS AND THE CONVERSION OF COORS TO INQUIRE

The original "Private Voluntary Organization System" was designed in 1977 to eventually supply many of the same types of information which have been identified as key components of a new information system, such as:

- . Funding data on PVO grantees and contractors

- . PVO data by project, country and amount of funding
- . Data on programs administered by AID (PL 480, commodities and ocean freight subventions).

PVC staff reported that the system's chief failing was its inability to supply accurate financial data. It drew from only two automated files:

- . COORS, the Contract On-Line Reporting System
- . Private Voluntary Agency Shipping Statistics, often referred to as the "ocean freight system."

Data on allotments/obligations, project accounting and registration were input manually.

As a result of these problems in entering, updating, verifying, querying and retrieving data from the system, it gradually fell into disuse. Intended as a monitoring device with monthly and quarterly report generation, it became an annual reporting tool of limited utility.

Conceivably, the system's internal limitations could have been overcome, but an extensive re-design would have been required. The conversion of COORS to the INQUIRE data base management system in October 1982 also meant that the PVO system could no longer draw data from COORS. The PVO system was rendered virtually inoperative by the conversion.

Assessment of the PVO system by M/SER/IRM analysts led to the decision to "scratch", i.e., delete, the system. Given the system's internal design deficiencies and under-utilization, the cost of converting the system to INQUIRE could not be justified.

As a result of the conversion of COORS to INQUIRE, the FVA Bureau lost its only automated, if inefficient, system at a time its role in collecting and disseminating information was mushrooming.

#### 4. THE REQUIREMENTS ANALYSIS TOOK INTO ACCOUNT SEVERAL FACTORS INFLUENCING FVA/PVC'S OPTIONS

In conducting this requirements analysis the study team took into account several factors which suggest the parameters of any PVO information system operated by PVC:

- . Structures for capturing needed information often are not in place, and automation opportunities to support some processes are quite limited.

- . The introduction of the shared-logic office automation equipment (Wang OIS-140) in FVA creates the possibility for creating locally-designed and controlled records management systems on that equipment to serve some of the emerging needs for PVO information.
- . Existing staff ceilings cannot readily support an information system demanding a large level of effort, such as providing sophisticated training to large numbers of the staff or developing in-house abstracting capabilities.
- . PVC has not fully operationalized many of the processes necessary to manage the information system and respond adequately to the dictates of the PVO policy paper.

These parameters resulted in a study which explores the full potential of already existing resources. These resources are described in Chapter IV in terms of their adequacy in meeting PVO information needs. Utilization of existing resources, rather than attempting to re-invent the wheel and duplicate existing resources, reinforces PVC's "brokerage" role, as set forth in the PVO policy paper.

### III. ASSESSMENT OF INFORMATION NEEDS

This chapter begins with a discussion of the study's approach to assessing PVO information needs and presents the results of this analysis. The chapter discusses:

- . The categories of information required by prospective users
- . The existing and/or intended use of the PVO information
- . The type and volume of information necessary to meet users' requirements.

The chapter concludes with Booz, Allen's recommendations on the relative priority of each information requirement.

#### 1. PVO INFORMATION NEEDS EXPRESSED BY PROSPECTIVE USERS AND CITED IN KEY DOCUMENTS WERE ASSESSED IN TERMS OF EXISTING AND PLANNED WORK PROCESSES AND THE OBJECTIVES THEY SUPPORT

An inventory of PVO information needs was developed from a more exhaustive list of possible information needs gathered from discussions with selected prospective users of a PVO information system, review of FVA and PVC responsibilities and processes, and analysis of a large set of documents, including:

- . PVO policy paper
- . Statement of Work, which identified 15 potential areas in PVC which could be supported by a PVO information system
- . Annual report on AID's PVO program prepared by PVC
- . Congressional Presentation
- . Automated systems' reports and documentation
- . Related reports, such as materials on the recent organizational changes in FVA
- . PVC staff records and reports, e.g., the Country Report and registration files.

All potential PVO information needs which emerged from these sources were then subjected to critical analysis to eliminate ideas with limited potential for support from a PVO information system from further consideration. To warrant additional assessment, perceived information needs had to be directly tied to a specific AID reporting requirement or a decision point or a step in a critical FVA Bureau or Agency process.

As a result, an initially long list of potential information needs was scrubbed to focus study efforts on those areas where a certain potential benefit from an information system, whether automated or manual, appeared to exist. All PVO information needs discussed in this chapter, therefore, represent substantial information requirements necessary for the routine performance of critical roles and production of standard reports. Less critical information which would be helpful or occasionally useful has been excluded from the following discussion.

## 2. PVO INFORMATION NEEDS IN SIX MAJOR CATEGORIES HAVE BEEN IDENTIFIED

In discussions and document reviews, a set of nine questions recurringly emerged about PVOs and AID's PVO program. These questions are:

- . To what extent is the Agency meeting its target PVO funding levels?
- . Which PVOs have the capabilities to work well in specified technical and geographic areas?
- . What kinds of development programs and activities do PVOs perform well?
- . Should AID fund a specific PVO for a specific purpose?
- . What are all the activities AID is funding a particular PVO to perform world-wide?
- . What PVO activities is AID funding in a particular country?
- . Which technical and geographic areas should a PVO pursue to develop, maintain or expand a funding relationship with AID?
- . What has resulted from AID's "investments" in PVOs?

- . What actions can be undertaken to strengthen PVO performance in AID programs?

Exhibit III-1, on the following page, presents an overview of the categories of information needed to respond to these key questions.

The exhibit shows 15 different types of information organized into 6 information categories and also shows the primary users of each type of PVO information. The six categories of information needed are summarized below.

- . Eligibility for Registration and PVO Grants -- This category includes information to determine PVO compliance with criteria for registration and for participation in AID's grant program.
- . PVO Technical Capabilities -- This category responds to the need to assess the previous experience and present qualifications not only of U.S. registered PVOs, but of indigenous PVOs (IPVOs) and other PVO and private non-profit organizations.
- . Plans for PVO Role -- Information is needed on AID country strategies and funding priorities, as well as host country attitudes toward and plans for PVO program support.
- . Results of PVO Activity -- This category includes both project-specific information which provides direct feedback to individual PVOs and summative information which permits comparative and overall assessment of the impact and strengths of AID's total PVO program.
- . PVO Technical Assistance -- There is a need for information on how AID grants are awarded, monitored and evaluated, and on the specific sources which provide needed technical assistance to PVOs in such areas as project design, financial and accounting systems and evaluation.
- . AID PVO Project Information -- The need is for a comprehensive assessment of all AID funding for PVO activities which includes the following information for each AID-funded project:
  - Amount by appropriation
  - Country or region of activity
  - Sector of activity
  - PVOs participating in the project.

Exhibit III-1  
Overview of PVO Information Needs by Major Users

| Information Need by Category                                 | Major Users |     |                               |          |      |
|--|-------------|-----|-------------------------------|----------|------|
|  | FVA/PVC     | PPC | AID/W Offices<br>Funding PVOs | Missions | PVOs |
| <u>I. ELIGIBILITY FOR REGISTRATION AND PVO GRANTS</u>        |             |     |                               |          |      |
| Percent U.S. Government Funding of PVO Overseas Programs     | o           |     | o                             | o        |      |
| Registered PVO Financial and Management Viability            | o           |     | o                             | o        |      |
| <u>II. PVO TECHNICAL CAPABILITIES</u>                        |             |     |                               |          |      |
| Registered U.S. PVO Capabilities                             | o           |     | o                             | o        | o    |
| Local or Indigenous PVO Capabilities                         | o           |     | o                             | o        | o    |
| Other PVO and Private Non-Profit Organizations' Capabilities | o           |     |                               |          | o    |
| <u>III. PLANS FOR PVO ROLE</u>                               |             |     |                               |          |      |
| AID PVO Program and Funding Priorities                       | o           | o   | o                             | o        | o    |
| Host Country PVO Activity Priorities                         | o           |     | o                             | o        | o    |
| <u>IV. RESULTS OF PVO ACTIVITY</u>                           |             |     |                               |          |      |
| AID-Funded PVO Project Evaluation                            | o           | o   | o                             | o        | o    |
| AID PVO Program Evaluation                                   | o           | o   | o                             | o        | o    |
| <u>V. PVO TECHNICAL ASSISTANCE</u>                           |             |     |                               |          |      |
| AID Program and Procedures                                   | o           |     |                               |          | o    |
| Technical Assistance Resources                               | o           |     |                               |          | o    |
| <u>VI. AID PVO PROJECT INFORMATION</u>                       |             |     |                               |          |      |
| AID Funding for PVO Activities by Appropriations             | o           | o   | o                             | o        |      |
| AID-Funded PVO Projects by Country                           | o           |     | o                             | o        | o    |
| AID-Funded PVO Projects by Sector                            | o           |     |                               |          | o    |
| AID-Funded PVO Projects by PVO                               | o           | o   | o                             | o        |      |

Exhibit III-1 shows that FVA/PVC is the primary user of PVO information and that each individual PVO information need responds to the requirements of more than one user, reflecting the multiple use of the same information by different consumers.

3. PVO INFORMATION IS NEEDED TO BETTER SUPPORT CRITICAL DECISION-MAKING IN EXISTING AREAS OF RESPONSIBILITY

A series of exhibits describes the multiple uses of PVO information by indicating the purpose or function of each information need by the various users of PVO information. Exhibits III-2 through III-7 characterize the PVO information needs in each of the six major categories by:

- . Identifying the major user or users
- . Defining each user's purpose
- . Describing the product, e.g., a specific report, or decision requiring the information
- . Describing whether the need for the information currently exists, exists in expanded form due to emphasis and re-evaluation of responsibilities, or is a new requirement.

Analysis of these six exhibits shows that PVO information is primarily required to develop and support a decision, i.e., a funding, programming or policy decision, rather than to prepare a standard reporting document. These exhibits further reveal only one new information need which stems from the legislation requiring that PVOs receive at least 20 percent non-U.S. government funding for their overseas programs to qualify for specified AID PVO program grants. Most information needs are existing ones, but the exhibit notes areas where information needs have expanded as a result of the PVO policy paper initiatives for PVC staff, in particular, to serve new information linkage roles requiring better PVO information.

(1) Qualifications Information is Needed to Register PVOs and Determine Their Eligibility for Funding

FVA/PVC is responsible for registering PVOs with the Agency. As shown in Exhibit III-2, on the following page, PVC needs information to:

- . Determine PVO compliance with initial and annual renewal criteria for registration

EXHIBIT FPI-2

Information Needs for Eligibility for Registration and PVO Grants

| <u>Information Need</u>                              | <u>User (s)</u>         | <u>Purpose (s)</u>   | <u>Product Or Decision</u> | <u>Status of Need</u>                 |
|--|-------------------------|--|----------------------------|---------------------------------------|
| Percent U.S. Government Funding of Overseas Programs | FVA/PVC                 | Determine PVO compliance with requirement for 20 percent non-U.S. government funding | Annual Report              | Existing                              |
|  | AID Funding Components* | Determine eligibility of PVO for PVO grant program                                   | Funding Decision           | Requirement effective January 1, 1985 |
| Registered PVO Financial and Management Viability    | FVA/PVC                 | Determine PVO compliance with initial and annual registration criteria               | Registration Decision      | Existing                              |
|  | AID Funding Components  | Assess PVO capability to perform project   | Funding Decision           | Existing                              |
|  | FVA/PVC                 | Maintain knowledge of registered PVO capabilities                                    | Response to Inquiries      | Existing                              |

\*Refers to all AID/W bureaus and offices as well as missions making funding decisions on PVO projects

- . Determine whether a PVO complies with the limits on the level of U.S. government financial support for its overseas programs necessary to qualify for PVO program grants
- . Maintain assessments of registered PVOs' financial, management and technical qualifications.

The PVC staff, then, serve as the information source for AID bureaus, offices and missions seeking information on whether a PVO is registered, meets certain grant requirements and has other pertinent qualifications as a basis for judging whether to fund a particular PVO. This information set is used by PVC to prepare the annual report on the PVO program and to research responses for Congressional and ad hoc inquiries on registered PVOs.

(2) AID Offices Have A Continuing Interest in PVO Technical Capabilities Information, For Both Funding Decisions and Response to Ad Hoc Inquiries

Exhibit III-3, on the following page, shows that FVA/PVC is a major user and distributor of information on the technical capabilities of registered PVOs, local PVOs and other private organizations.

All AID offices and missions funding PVOs need information to assess the technical qualifications of a PVO seeking grant funds, in particular the technical skills of registered PVOs. The specific kinds of information sought concern:

- . Countries of experience
- . Sectors or technical areas of experience
- . Previous work with AID
- . Qualifications of current staff.

While this PVO information need is an existing one for AID offices and missions funding PVO activity, it represents an expanded information requirement in PVC to develop a central source of information on PVO capabilities.

In addition, information is sometimes needed by PVC to respond to general inquiries about the larger PVO community both in this country and overseas. Currently, there are few requests for information on local (also referred to as indigenous PVOs), but it is anticipated that requests will increase with PVC's

## Information Needs for PVO Technical Capabilities

| <u>Information Need</u>                                      | <u>User (s)</u>        | <u>Purpose (s)</u>  | <u>Product Or Decision</u> | <u>Status of Need</u> |
|--|------------------------|---|----------------------------|-----------------------|
| Registered PVO Technical Capabilities                        | AID Funding Components | Assess PVO qualifications to perform project                                | Funding decision           | Existing              |
|  | FVA/PVC                | Maintain knowledge of registered PVO capabilities and track record with AID | Response to Inquiries      | Expanded              |
| Local or indigenous PVO Capabilities                         | FVA/PVC                | Maintain knowledge of local PVO capabilities and track record with AID      | Response to Inquiries      | Expanded              |
|  | AID Funding Components | Assess local PVO qualifications to perform project                          | Funding Decision           | Existing              |
| Other PVO and Private Non-Profit Organizations' Capabilities | FVA/PVC                | Maintain knowledge of PVO and other private non-profit organizations        | Response to Inquiries      | Expanded              |

improved ability to provide needed information on local capabilities.

PVC also responds requests about other U.S. PVOs not funded by AID, as well as other private non-profit organizations, and needs to be able to describe the purpose, location and general program of these organizations.

(3) AID's Development Assistance Plans Assist PVO Planning and Contribute to AID Funding Decisions

PVOs are seen as consumers of funding priority information, and as shown in Exhibit III-4, on the following page, information on PVO priorities provides a critical context for AID decision-making in several areas.

There is an expanded need for AID and host country PVO strategy information within PVC to support analysis of AID patterns in utilization of PVO capabilities, to direct central program funds to mission priorities (as emphasized in the policy paper), and to advise PVOs on areas of opportunity for AID and host country support. AID offices and missions can also use this kind of information to evaluate the priority of a PVO grant proposal.

(4) Evaluation Information is Needed to Help Strengthen Individual PVO Performance, to Assess the Return on the Agency's Investment and to Facilitate Policy and Project Design Decisions

Exhibit III-5, following Exhibit III-4, reflects the extensive requirement for evaluative information by all intended users of the PVO information system.

The need for PVO evaluation information, from both a project-specific and a program-wide perspective, parallels the Agency's interest in information which:

- . Helps to strengthen PVO capabilities and project impact
- . Provides evidence of an individual PVO's performance and track record with AID
- . Express lessons learned, which are fed back into new project designs

EXHIBIT 12-4

Information Needs for Plans for PVO Role

| <u>Information Need</u>                | <u>User (s)</u>        | <u>Purpose (s)</u>   | <u>Product Or Decision</u>                     | <u>Status of Need</u> |
|--|------------------------|--|--|-----------------------|
| AID PVC Program and Funding Priorities | FVA/PVC                | Focus central PVO program funds to support mission-identified country priorities       | Funding Decisions                              | Expanded              |
|  | PPC                    | Assess extent of program and country strategy support for Agency policy and priorities | Policy Decisions                               | Existing              |
|  | FVA/PVC                | Disseminate and evaluate information on AID's PVO program plans                        | Programs and Policy Decisions                  | Expanded              |
|  | PVOs                   | Assess areas of opportunity to initiate or expand activities                           | Program Decisions                              | Existing              |
|  | AID Funding Components | Determine priority of PVO grant proposals  | Funding Decisions                              | Existing              |
| Host Country PVO Activity Priorities   | AID Funding Components | Assess appropriate role for PVOs in specific country context                           | Strategy, Project Design and Funding Decisions |                       |
|  | FVA/PVC                | Maintain knowledge of host country roles for PVOs                                      | Response to Inquiries                          | Expanded              |
|  | PVOs                   | Assess areas of opportunity to initiate or expand activities                           | Program Decisions                              | Existing              |

24

## EXHIBIT 5

## Information Needs for Results of PVO Activity

| <u>Information Need</u>           | <u>User (s)</u>        | <u>Purpose (s)</u>  | <u>Product Or Decision</u>    | <u>Status of Need</u> |
|-----------------------------------|------------------------|---|-------------------------------|-----------------------|
| AID-Funded PVO Project Evaluation | PVOs                   | Incorporate feedback on performance into development assistance activities                  | Program Decisions             | Existing              |
|                                   | AID Funding Components | Assess PVO technical capabilities to perform a project based on demonstrated "track record" | Funding Decisions             | Existing              |
| AID PVO Program Evaluation        | PPC                    | Evaluate Agency's PVO program performance and impact against policy objectives              | Evaluation and Policy Reports | Existing              |
|                                   | FVA/PVC                | Disseminate information on effective PVO roles in development assistance                    | Design and Policy Decisions   | Expanded              |
|                                   | AID Funding Components | Incorporate "lessons learned" into program priorities and project designs                   | Design Decisions              | Existing              |

25

- . Guides policy analysis by providing evidence of the strengths and weaknesses of Agency strategies in the utilization of PVO capabilities.

PVC, in particular, has an expanded requirement for information which indicates where PVOs make particularly strong contributions and which indicates innovative project concepts. Such information is seen as essential for PVC to develop a capability to generate and disseminate ideas promoting effective relationships between the Agency and PVOs.

(5) Information on the AID Environment and Resources for Building PVO Capabilities is a Continued Requirement for PVOs

The PVO policy paper emphasizes the need for FVA to provide information and technical assistance to PVOs to strengthen their capabilities for effective performance in the AID environment. Several kinds of information are needed in this area, as reflected in Exhibit III-6, as shown on the following page:

- . Types of assistance available from various sources, including the New TransCentury Foundation, FVA/PVC conferences and workshops and other PVOs
- . Descriptions of AID grant programs and grant requirements, e.g., eligibility criteria for various types of grants, audit procedures, payment voucher procedures and grant evaluation requirements.

PVC is the primary source for disseminating this information to the PVO community, but other AID staff, particularly PVO Liaison Committee members and mission staff, could potentially benefit from such information in their relationships with PVOs.

(6) AID PVO Project Information Is a Fundamental Requirement

Perhaps the most basic expanded information need emerging from the thrust of PVO policy paper objectives is for a more comprehensive picture of all AID-funded PVO activity. Currently, this picture can be constructed from Agency budget requests for PVO projects, but all potential PVO information system users expressed a need for a more reliable assessment of AID-funded PVO activity and an ability to search for

## EXHIBIT 1-6

## Information Needs for PVO Technical Assistance

| <u>Information Need</u>        | <u>User (s)</u> | <u>Purpose (s)</u>  | <u>Product Or Decision</u> | <u>Status of Need</u> |
|--------------------------------|-----------------|---|----------------------------|-----------------------|
| Technical Assistance Resources | FVA/PVC         | Refer PVOs to appropriate providers of technical assistance                                 | Response to Inquiries      | Existing              |
|                                | PVOs            | Develop institutional and technical capabilities for effective performance in AID programs  | Program Decisions          | Existing              |
| AID Programs and Procedures    | FVA/PVC         | Provide and refer PVOs to information on AID grants, monitoring and evaluation requirements | Response to Inquiries      | Existing              |
|                                | PVOs            | Develop AID-specific operational knowledge for effective performance in AID programs        | Program Decisions          | Existing              |

and organize this information by country, sector and individual PVO.

Exhibit III-7, on the following page, reflects the variety of AID PVO project information in which critical AID offices and PVOs have an interest.

- . PPC needs information for the Agency's Congressional Presentation which reports both budget and actual funding for PVO activity, particularly in the earmarked appropriations which must meet a 12 to 16 percent PVO funding target level.
- . FVA/PVC needs to maintain an overview of all AID-funded PVO projects in order to:
  - Produce country profiles keeping mission and other staff informed of all AID-funded PVO activity in the country
  - Respond to inquiries about the level and pattern of AID funding for types of PVO activity from a variety of sources, including Congress, the A/AID, PPC, other AID offices and PVOs
  - Develop and maintain Agency-wide data on AID's relationships with PVOs for policy, evaluation and other analyses.

PVO Liaison Committee members and AID funding components could use a PVO inventory to assist in monitoring project implementation and to support programming and funding decisions on use of PVOs. The PVO community itself is interested in AID project information which can guide decisions on which sectors or countries should be further explored in establishing or expanding working relationships with the Agency.

4. PVOs WILL BE IMPORTANT CONSUMERS IN MANY OF THESE AREAS WHICH WILL SATISFY THEIR NEEDS FOR AID-SPECIFIC INFORMATION

The preceding discussion shows that PVOs will be a primary user of certain kinds of information. In particular, FVA/PVC and other AID offices and missions need information, not only to support their own PVO program management, but also to respond to PVOs' information needs, particularly on:

## EXHIBIT 1 - 7

## Information Needs for AID Project Information

| <u>Information Need</u>                         | <u>User (s)</u>        | <u>Purpose (s)</u>   | <u>Product Or Decision</u>         | <u>Status of Need</u> |
|---|------------------------|--|------------------------------------|-----------------------|
| AID Funding for PVO Activities by Appropriation | PPC                    | Report to Congress on AID funding for PVO activities, particularly on levels in earmarked appropriations | CP documents                       | Existing              |
|   | AID Funding Components | Monitor levels and pattern of funding for PVO activities   | Funding Decisions                  | Expanded              |
|   | FVA/PVC                | Develop and maintain knowledge of all AID-funded PVO activity  | CP and other PVO Program Overviews | Expanded              |
| AID-Funded PVO Projects by Country              | FVA/PVC                | Develop and disseminate country profiles of AID-funded PVO activity                                      | Country Profiles                   | Expanded              |
|   | PVO Liaison Committee  | Monitor PVO activity in areas of responsibility  | Response to Inquiries              | Expanded              |
|   | Mission Directors      | Maintain knowledge of all PVO activity in country and regions  | Response to Inquiries              | Existing              |
| AID-Funded PVO Projects by Sector               | PVOs                   | Assess areas of opportunity for new and expanded activities  | Program Decisions                  | Existing              |
|   | FVA/PVC                | Maintain knowledge of AID activities supported by PVOs   | Response to Inquiries              | Expanded              |
|   | PVOs                   | Assess areas of opportunity for new and expanded activities  | Program Decisions                  | Existing              |

## EXHIBIT 1-7 (2)

| <u>Information Need</u>                   | <u>User (s)</u>        | <u>Purpose (s)</u>   | <u>Product Or Decision</u> | <u>Status of Need</u> |
|---|------------------------|--|----------------------------|-----------------------|
| AID-Funded PVO Projects by Individual PVO | FVA/PVC                | Develop and maintain profiles of an individual PVO's relationship with AID                             | Response to Inquiries      | Expanded              |
|   | AID Funding Components | Assess the type and results of a PVO's previous AID experience to determine its technical capabilities | Funding Decisions          | Existing              |
|   | PPC                    | Respond to Congressional interest in distribution of AID funds to U.S. and local or indigenous PVOs    | Congressional Testimony    | Expanded              |

- . The AID environment, e.g., the mechanisms, procedures and requirements for PVO working relationships with AID
- . Project activity, funding priorities and sectoral strategies, to assist PVOs in determining what their posture vis-a-vis AID should be
- . Technical capabilities of other PVOs for purposes of more efficient marketing, self-evaluation and teaming relationships with other PVOs.

These information needs show that PVOs are perhaps the ultimate consumers and beneficiaries of the information flow channelled through FVA/PVC.

The kinds of information needs identified to respond to PVOs' requirements indicate that FVA/PVC needs to promote a two-way flow of information between AID and PVOs in several different ways:

- . Being more responsive to inquiries from PVOs and from AID offices and missions about PVOs
- . Preparing documents and reports summarizing and promoting AID's PVO program
- . Providing PVOs with information about AID programs, funding and priorities.

PVOs, themselves, recognize that many of their information needs entail fund-raising and identification of alternative funding sources in the private sector which AID is not in a position to supply. Furthermore, some PVOs are actively involved in policy issues which may, in fact, be at odds with AID's program and priorities. PVOs are actively examining issues that FVA/PVC's system does not address, such as:

- . Cost-effectiveness of PVO programs, e.g., acceptable range of cost-benefit ratios per beneficiary
- . Use of multi-lateral banks in supplying credit for PVO projects
- . Posture that PVOs should adopt in various the developing countries
- . Development of advocacy clusters that cross over from PVO to PVO, e.g., "networking".

These informational needs and issues will continue to be addressed from within the PVO community itself.

5. THE MAJORITY OF PVO INFORMATION NEEDS ARE ESTIMATED TO BE ACCESSED REGULARLY BY POTENTIAL USERS AND TO HAVE MANAGEABLE STORAGE AND MAINTENANCE REQUIREMENTS

Exhibit III-8, on the following page, characterizes each of the 15 PVO information needs, grouped by category, in terms of the type of information required, the estimated frequency of use, the estimated volume of information needed and the minimum update cycle required to maintain useful information. Information in each of these areas is presented in the following manner:

- . Type of information characterizes whether the need is for quantitative or qualitative information and suggests the generic type of data required, i.e. financial or budget information
- . Frequency of use is characterized as either regular, meaning that access is required throughout the work year, or infrequent, which indicates either a need during certain work cycles, e.g., budget preparation, or a low demand for the information
- . Size is estimated in terms of the number of records needed to satisfy the requirement
- . Estimated minimum update cycle reflects the type of information and the length of time it remains current for use.

A review of the types of information needed underscores an earlier observation that much of the PVO information need is for information which has to be analyzed and assessed to develop a decision or form a judgment. Therefore, in addition to supporting standard reporting requirements, the kind of PVO information sought is that which permits professionals to utilize information from a variety of sources in many different ways in order to meet the unique needs of the specific question under consideration.

There appear to be three categories of information which would be regularly accessed. Exhibit III-8 indicates that information on PVO eligibility for AID grants, PVO technical capabilities and PVO project information is routinely required to support the Agency's work. Such information is fundamental in the Agency's design, monitoring and programming/budgeting processes.

EXHIBIT III-8

Major Characteristics of PVO Information Needs

| <u>Information Need by Category</u>                          | <u>Type of Information</u>     | <u>Estimated Frequency of Use</u> | <u>Estimated Size</u>                              | <u>Estimated Minimum Update Cycle</u> |
|--|--------------------------------|-----------------------------------|--|---------------------------------------|
| <u>I. ELIGIBILITY FOR REGISTRATION AND PVO GRANTS</u>        |                                |                                   |  |                                       |
| Percent U.S. Government Funding of Overseas Programs         | Financial Statistic            | Regular                           | 160 PVO Records                                    | Annual                                |
| Registered PVO Financial and Management Viability            | Management Evaluation          | Regular                           | 160 PVO Records                                    | Annual                                |
| <u>II. PVO TECHNICAL CAPABILITIES</u>                        |                                |                                   |  |                                       |
| Registered U.S. PVO Technical Capabilities                   | Technical Evaluation           | Regular                           | 160 PVO Records                                    | Annual                                |
| Local Indigenous PVO Capabilities                            | General Evaluation             | Infrequent                        | Unknown but Small                                  | As Needed                             |
| Other PVO and Private Non-Profit Organizations' Capabilities | General Evaluation             | Infrequent                        | 800 PVO Records                                    | As Needed                             |
| <u>III. PLANS FOR PVO ROLES</u>                              |                                |                                   |  |                                       |
| AID PVO Program and Funding Priorities                       | Strategic Evaluation           | Infrequent                        | 60 to 70 Country Records                           | As Needed                             |
| <u>IV. RESULTS OF PVO ACTIVITY</u>                           |                                |                                   |  |                                       |
| AID-Funded PVO Project Evaluation                            | Process and IOP Evaluation     | Regular                           | At least 200 current records but potentially large | As Needed                             |
| AID PVO Program Evaluation                                   | Program and Impact Evaluation  | Regular                           | At least 200 current records but potentially large | As Needed                             |
| <u>V. PVO TECHNICAL ASSISTANCE</u>                           |                                |                                   |  |                                       |
| AID Programs and Procedures                                  | Regulations                    | Infrequent                        | Unknown but potentially large                      | As Needed                             |
| Technical Assistance Resources                               | Technical Assistance Inventory | Infrequent                        | Unknown  | As Needed                             |
| <u>VI. AID PVO PROJECT INFORMATION</u>                       |                                |                                   |  |                                       |
| AID Funding for PVO Activities by Appropriation              | Budget and Actual Dollars      | Regular                           | 450 Project Records                                | Annual                                |
| AID-Funded PVO Projects by Country                           | Key characteristics            | Regular                           | 450 Project Records                                | Annual                                |
| AID-Funded PVO Projects by Sector                            | Key characteristics            | Regular                           | 450 Project Records                                | Annual                                |
| AID-Funded PVO Projects by PVO                               | Key characteristics            | Regular                           | 450 Project Records                                | Annual                                |

23

The last two columns of the exhibit indicate that PVO information needs have manageable storage and maintenance requirements. The primary focus is for information on the 160 registered U.S. PVOs, in fact, even more pointedly, on the approximately 80 PVOs currently receiving AID funds, and the approximately 450 PVO projects. In information system terms, the number of records of information to meet the information needs is relatively modest. In addition, the kinds of PVO information needed do not typically require continuous update, but could respond to the information need with an annual updating cycle with minor adjustments during the year.

6. ALL IDENTIFIED PVO INFORMATION NEEDS SUPPORT CRITICAL DECISION MAKING AND REPORTING REQUIREMENTS BUT CAN BE PRIORITIZED IN TERMS OF NEEDED SEQUENCE OF DEVELOPMENT

As noted earlier, the 15 individual PVO information needs reviewed in this chapter represent substantial requirements justified by their use in meeting Congressional and other reporting requirements or to permit a knowledgeable assessment of "the facts" in formulating a judgment or making a decision necessary in a critical process. All of these needs, therefore, may be considered priorities since they exclude needs which are not necessary regular work requirements or which represent rarely used information that would be convenient to have on hand when and if the need should arise.

These 15 information needs can, however, be differentiated in terms of the priority for responding to the need with a PVO information system. Exhibit III-9, on the following page, presents the study team's recommendations of these needs which demand immediate response by the PVO system, and those where the need is less pressing.

These recommendations are based on the following considerations:

- . The function or purpose served by the information need, particularly those emphasized in PVO policy paper objectives
- . The potential demand for the information in terms of the frequency of use and the variety of users.

Admittedly, these recommendations also take into account how well the need is currently being satisfied. This consideration foreshadows findings and conclusions presented in the next chapter, which assesses potential sources for meeting these information needs.

EXHIBIT III-9

Recommended Priority for Sequence of Development

FIRST PRIORITY INFORMATION NEEDS

I. ELIGIBILITY FOR REGISTRATION AND PVO GRANTS

Percent U.S. Government Funding of PVO Overseas  
Programs  
Registered PVO Financial and Management Viability

VI. AID PVO PROJECT INFORMATION

AID Funding for PVO Activities by Appropriation  
AID-Funded PVO Projects by Country  
AID-Funded PVO Projects by Sector  
AID-Funded PVO Projects by PVO

II. PVO TECHNICAL CAPABILITIES

Registered U.S. PVO Technical Capabilities  
Local or Indigenous PVO Capabilities  
Other PVO and Private Non-Profit Organizations'  
Capabilities

SECOND PRIORITY INFORMATION NEEDS

IV. RESULTS OF PVO ACTIVITY

AID-Funded PVO Project Evaluation  
AID PVO Program Evaluation

III. PLANS FOR PVO ROLE

AID PVO Program and Funding Priorities  
Host Country PVO Activity Priorities

V. PVO TECHNICAL ASSISTANCE

AID Programs and Procedures  
Technical Assistance Resources

Exhibit III-10, on the following pages, provides examples of the information elements required to respond to each information need. The exhibit represents the results of preliminary analyses and is presented here to help define the relative priority for addressing PVO information needs. The exhibit is limited in its scope and in the conclusions which it can support. Further specification of data elements will be a necessary and critical task in the next phase of work, system design and development.

EXHIBIT III-10

Examples of Elements to Satisfy PVO Information Needs

Information Need by Category

Examples of Information Elements

|  |   |
|--|---|
| <u>I. ELIGIBILITY FOR REGISTRATION AND PVO GRANTS</u>        |   |
| Percent U.S. Government Funding of PVO Overseas Programs     | Total funding of overseas program by fiscal year<br>Total U.S. government funding of overseas program by fiscal year<br>Total AID funding of overseas program by fiscal year  |
| Registered PVO Financial and Management Viability            | Legal status under articles of incorporation<br>Years of operation<br>Evidence of bankruptcy or pending suits<br>Audit statements by fiscal year  |
| <u>II. PVO TECHNICAL CAPABILITIES</u>                        |   |
| Registered U.S. PVO Technical Capabilities                   | Purpose of PVO and its affiliations<br>Countries where currently and recently operating<br>Technical qualifications of current personnel<br>Current and recent experience in AID sectors<br>Current and recent AID projects and project officer reference<br>Evaluations, audits and reports on performance |
| Local or Indigenous PVO Capabilities                         | Purpose of organization and its affiliations<br>Years of operation<br>Countries where currently and recently operating<br>Current and recent program activities by country<br>Current and recent AID projects and project officer reference<br>Evaluations, audits and reports on performance               |
| Other PVO and Private Non-Profit Organizations' Capabilities | Purpose of organization and its affiliations<br>Countries where currently and recently operating<br>Current and recent program activities by country  |
| <u>III. PLANS FOR PVO ROLE</u>                               |   |
| AID PVO Program and Funding Priorities                       | Planned PVO role in AID program strategy by country<br>Planned level of PVO funding in AID programs by year by country  |
| Host Country PVO Activity Priorities                         | Planned PVO role in host country development strategy by country  |

Information Need by Category

Examples of Information Elements

IV. RESULTS OF PVO ACTIVITY

AID-Funded PVO Project Evaluation

Compliance with project objectives  
PVO strengths and weaknesses  
Project impact

AID PVO Program Evaluation

AID sectors with strong and weak PVO performances  
Countries with strong and weak PVO performance  
Project implementation roles associated with strong and weak PVO performance  
Specific PVO qualified for specific AID projects  
Innovative PVO roles  
Innovative project designs

V. PVO TECHNICAL ASSISTANCE

AID Programs and Procedures

Eligibility requirements by type of grant  
AID Handbook references  
AID audit requirements  
AID evaluation requirements  
AID planning, programming and budgeting cycle  
AID grant award process

Technical Assistance Resources

Sources of in-house technical assistance by area  
Sources of external technical assistance by area  
Schedule of workshops and conferences

VI. AID PVO PROJECT INFORMATION

AID Funding for PVO Activities  
by Appropriation

Total dollar and percent of earmarked appropriations requested for PVO activity for budget year  
Total dollar and percent of other appropriations requested for PVO activity for budget year  
Total actual and percent of earmarked appropriations obligated for PVO activity for current and previous year  
Total actual dollar and percent of other appropriations obligated for PVO activity for current and previous year

EXHIBIT III-10 (3)

Information Need by Category

Examples of Information Elements

AID-Funded PVO Projects by Country

List of projects by:

- . PVO
- . Sector
- . Level of funding
- . Life of project
- . Project Officer

List of partially-funded PVO activity by project  
Total funding level by country

AID-Funded PVO Projects by Sector

List of projects by:

- . PVO
- . Country
- . Level of funding
- . Life of project
- . Project officer

List of partially-funded PVO activity by project  
Total funding level by sector

AID-Funded PVO Projects by PVO

List of projects by:

- . Country
- . Sector
- . Level of funding
- . Life of project
- . Project officer

List of partially-funded PVO activity by project  
Total funding level by PVO  
Percent funding to local and U.S. PVOs

#### IV. ASSESSMENT OF INFORMATION RESOURCES

This chapter assesses the various resources which could satisfy the 15 PVO information needs described in Chapter III. The chapter begins with an overall description of the kinds of resources available for a PVO information system, then discusses the nature of problems in collecting required information from these sources, and, finally, presents options, where they are available, to meet the information needs.

##### 1. EXISTING AUTOMATED AND MANUAL RESOURCES SUPPLY BASIC PVO INFORMATION WHICH MUST BE SUPPLEMENTED BY AID STAFF KNOWLEDGE TO FULLY RESPOND TO PVO INFORMATION NEEDS

Exhibit IV-1, on the following page, relates the major existing manual and automated resources to the PVO information needs which they can satisfy. Examination of this information reveals that existing documents and data bases provide most of the needed information.

There are several areas, however, where sources do not currently exist or do not fully respond to users' PVO information requirements. Examination of the exhibit shows that:

- . No documents or automated applications currently provide:
  - Information on technical assistance resources available to PVOs
  - A listing of AID-funded PVO projects by sector
  - A listing of AID-funded PVO projects by PVO, either current or historical.
- . Information from experienced staff in key AID and PVO positions is required to fully satisfy several information needs.

The need to go beyond standard manual and automated sources of information is implied by the last column on Exhibit IV-1. In almost every case, information sources are used to find facts or previously developed judgmental information (such as the conclusions in an evaluation study) which need to be reviewed, re-interpreted and

EXHIBIT IV-1  
Summary of Existing PVO Information Resources by Information Need

| <u>Information Need by Category</u>                          | <u>Standard Documents</u>            | <u>Automated Applications</u> | <u>Other Resources</u>           |
|--|--------------------------------------|-------------------------------|----------------------------------|
| <b>I. <u>ELIGIBILITY FOR REGISTRATION AND PVO GRANTS</u></b> |                                      |                               |                                  |
| Percent U.S. Government Funding of PVO Overseas Programs     | Registration Materials               |                               | Registration Contractor          |
| Registered PVO Financial and Management Viability            | Registration Materials               |                               | Project Officers                 |
| <b>II. <u>PVO TECHNICAL CAPABILITIES</u></b>                 |                                      |                               |                                  |
| Registered U.S. PVO Capabilities                             | Evaluations; Audits; Project Records | DIS; TAICH                    | Project Officers; Missions; PVOs |
| Local or Indigenous PVO Capabilities                         | Evaluations; Audits; Project Records | DIS                           | Missions; PVOs                   |
| Other PVO and Private Non-Profit Organizations' Capabilities | TAICH Directory                      | TAICH                         | PVOs                             |
| <b>III. <u>PLANS FOR PVO ROLE</u></b>                        |                                      |                               |                                  |
| AID PVO Program and Funding Priorities                       | CDSS; Country ABS                    |                               | Missions; Project Officers       |
| Host Country AID Activity Priorities                         | CDSS; Host Country Five-Year Plans   |                               | Missions                         |
| <b>IV. <u>RESULTS OF PVO ACTIVITY</u></b>                    |                                      |                               |                                  |
| AID PVO Project Evaluation                                   | Evaluations; Audits                  | DIS                           | Project Officers, Missions       |
| AID PVO Program Evaluation                                   | Evaluations; Policy Reports          | DIS; TAICH                    |                                  |
| <b>V. <u>PVO TECHNICAL ASSISTANCE</u></b>                    |                                      |                               |                                  |
| AID Program and Procedures                                   | AID Handbook                         |                               | Project Officers                 |
| Technical Assistance Resources                               |                                      |                               | NTCF; Project Officers           |
| <b>VI. <u>AID PVO PROJECT INFORMATION</u></b>                |                                      |                               |                                  |
| AID Funding for PVO Activities by Appropriation              | OYB Reports; Portfolio Review; CP    | PBDS; COORS; OYB; PAIS        | DP Officers; Mission Controllers |
| AID-Funded PVO Projects by Country                           | FVA Country Profiles; CP             | PBDS; COORS                   | Project Officers; Missions       |
| AID-Funded PVO Projects by Sector                            |                                      |                               | Project Officers; Missions       |
| AID-Funded PVO Projects by PVO                               |                                      |                               | Project Officers; Missions; PVOs |

weighed, or judged again in the context of a new decision. In almost every application of PVO information which is called for by the statements of need gathered in this study, participants interviewed anticipated a continued need for such use of descriptive or evaluative information which they would identify, retrieve and utilize through the PVO information system in FVA/PVC.

2. INFORMATION TO DETERMINE ELIGIBILITY FOR REGISTRATION AND PVO GRANT PROGRAMS IS POTENTIALLY AVAILABLE FROM PVC'S REGISTRATION PROCESS

The primary resource available for calculating the percent of U.S. government funding for a registered U.S. PVO and a registered PVO's financial and management viability is the set of documents annually submitted by registered PVOs to PVC as part of the registration process. PVC's registration process, however, is designed to determine compliance with registration criteria. Use of these data for other related purposes is time-consuming, can result in unreliable financial statistics, and does not directly answer questions about an organization's ability to responsibly carry out an AID grant.

(1) The Existing C-100 Form Has Been Found Inadequate For Making the PVO Overseas Program Funding Source Determination

One of the annually submitted forms, the C-100 (AID-1550-2), has been tested to determine its reliability in calculating the 20 percent figure which, as of January 1, 1985, is required for eligibility to participate in the PVO grant program. While the C-100 provides funding source information, the following problems have been identified by PVC staff and the registration contractor, as summarized in Exhibit IV-2, on the following page:

- . The kind of information provided in the form can be analyzed in different ways which can produce different percentage estimates.
- . Other sources of information on PVO funding sources, i.e., IRS Form 990 and audited financial statements, cannot always be reconciled with information as it is presented in the C-100, again resulting in potentially different percentage estimates which cannot be readily reconciled with information in the registration files.

EXHIBIT IV-2  
Assessment of Resources for Percent of U.S. Government Funding of  
Overseas Program of Registered U.S. PVOs

Resource

C-100 form (AID-1550-2)

Assessment

C-100 form is not designed to provide reliable estimates.

Contractor provides "best estimate" calculation, which cannot always be reconciled with other financial reports.

PVOs' fiscal years do not coincide with AID's cycle to permit analysis.

PVC has decided to re-design the form to directly obtain the required information.

- . Recognizing the variability of bookkeeping practices and reporting periods, i.e., fiscal year, FVA/PVC has allowed each PVO to submit this information within 180 days after the completion of all its required financial reports, resulting in:
  - Various reports from the same PVO which cover different, sometimes overlapping, periods of time, which cannot always be analyzed to build a comprehensive profile.
  - Information which is not aligned with AID's fiscal year to permit funding analysis.

The criticality of the 20 percent estimate and the problems experienced in calculating the estimate have led PVC to a decision to re-design the C-100 form to better capture the needed data.

(2) The Wealth of PVO Organizational and Financial Information in Registration Files Does Not Readily Permit Analysis of PVO Viability

Exhibit IV-3, on the following page, identifies the current resources tapped to provide information on PVO viability. PVC maintains extensive documentation from the 160 U.S. registered PVOs which they submit annually as part of the renewal process. This information is currently summarized into a report, by an accounting firm, on whether the PVO meets AID's registration guidelines. The contractor also produces an analytical report assessing each registered PVO's financial reports. The process is not, however, structured to directly address the questions of the financial status or the management viability of a PVO, although it can sometimes identify organizations which are experiencing serious difficulty.

PVC project officers, and others, sometime review registration files, but report that the large, unorganized set of PVO annual reports, audits and IRS forms requires a labor-intensive and time-consuming process to read and analyze to make judgments on a PVO's financial and management capabilities. Currently, project officers make viability assessments based on their knowledge and experience with a PVO, calling upon others with contacts with the PVO and, infrequently, contacting PVOs with information services, e.g., TAICH, PACT, and NTCF, and the Better Business Bureau, especially, to check on an unfamiliar PVO.

EXHIBIT IV-3  
Assessment of Resources for Registered  
U.S. PVOs' Financial and Management Viability

Resource

Assessment

Registration Materials

The new policies and procedures (Operational Tests/Checklist) are not designed to provide a rating or determination of viability.

Viability assessment guidelines need to be developed if these materials are to directly respond to this need.

Project Officers and PVO  
Liaison Committee Members

AID staff with working experience of the PVO are relied upon to develop judgements of a PVO's qualifications to answer specific questions.

Selected Clearinghouses

PVOs are reluctant to share sensitive information.  
Better Business Bureau can identify PVOs with reported problems.

5

(3) PVC Could Decide to Restructure the Registration Process to Provide More Directly PVO Viability Assessments

In addition to re-designing the C-100 form, some consideration is being given to revising PVC's registration process. As part of this effort, PVC could explore the potential of systematically analyzing registration materials to develop descriptive statements on the financial and management viability of registered U.S. PVOs, especially for responding to mission and other AID funding office inquiries. At base, the development of such a capability would require:

- . Development of criteria for determining PVO viability
- . Designing forms, guidance and other materials to collect the information from PVOs
- . Aggregating the assessments into a system for ready reference and retrieval when needed.

It is recognized, however, that such criteria would not fully respond to the requirements for PVO eligibility information. Such judgments will continue to require the perspective and expertise of AID staff, whose assessments could be better informed by access to more organized information on PVOs in these critical areas.

3. ASSESSMENTS OF TECHNICAL CAPABILITIES COULD BE SUPPORTED BY ACCESS TO MORE COMPREHENSIVE INFORMATION ON A PARTICULAR PVO, ESPECIALLY PVOS WHICH HAVE WORKED WITH AID

Chapter II noted the criticality of and the frequency of demand for information on technical capabilities of registered U.S. PVOs, local PVOs (also referred to as indigenous PVOs), and other PVOs and non-profit organizations. An extensive set of resources is currently used to evaluate the technical expertise and experience of registered and local PVOs under consideration for grant funding. For almost 30 years, AID has funded the Technical Assistance Information Clearing House (TAICH) of the American Council of Voluntary Agencies for Foreign Service to assist the Agency in meeting this requirement, particularly with information on the larger PVO and private non-profit community.

(1) Incomplete Records and the Perishable Nature of Such Information Have Contributed to the Difficulty of Assessing PVO Technical Capabilities

As shown in Exhibit IV-4, on the following page, a wide variety of resources exists for evaluating the capabilities of registered U.S. PVOs. The need for technical qualifications information is primarily used as a basis for deciding whether to fund a particular PVO or which PVO would perform well in a particular area.

While Exhibit IV-4 shows the large number of resources which could be searched to evaluate a PVO's technical qualifications, it also suggests that no source directly responds to the information need. DIS and AID project materials (including evaluations and audits) provide a wealth of information which could be analyzed to:

- . Assess a PVO's "track record" with the Agency in certain technical areas
- . Determine a PVO's qualifications for a specific project
- . Identify which PVOs are qualified for technical work in certain countries.

This represents, however, a time-consuming process, since the document base itself must be assembled before analysis can begin. Even when AID documentation can be assembled to evaluate a PVO's technical capabilities, it may be inadequate because:

- . AID's institutional memory on PVOs is incomplete, and the major system for searching for Agency records, DIS, does not have the capability to search by PVO.
- . Technical qualifications information is exceptionally time-sensitive and must be current to be of value; most document and automated system resources, by their very nature as recordkeeping sources, cannot always provide the most current information.

The limited usefulness of AID documents and automated data bases in both directly supplying assessments of the technical capabilities of registered U.S. PVOs and facilitating the search for current data has led to reliance on the professional judgments of AID staff who have worked with PVOs as the primary source for this information.

EXHIBIT IV-4  
Assessment of Resources for  
Registered U.S. PVO Technical Capabilities

| <u>Resource</u>   | <u>Assessment</u>   |
|---|---|
| Development Information System (DIS)                      | PVC, missions and other AID offices have not supplied PVO project materials to DIS, resulting in an incomplete set of PVO holdings in the system currently.<br><br>DIS does not have a PVO identifier for efficient system search capabilities. |
| AID Evaluations of PVO Projects                           | There are no mechanisms to systematically identify, collect, or access all pertinent current and historical documents.  |
| IG, GAO Audits of PVOs                                    | There are no mechanisms to systematically identify, collect or access all pertinent current and historical documents.   |
| TAICH and Other PVOs                                      | These organizations can provide some descriptive information, but are reluctant to assess other PVOs.   |
| Project Officers, Missions, PVO Liaison Committee Members | AID staff with working knowledge of a PVO can provide assessments of its technical capabilities.  |
| PVO Grant Proposals                                       | PVO claims must be taken at face value.   |

28

TAICH has been funded by AID to provide technical capabilities information, among other information, on all U.S. PVOs with overseas programs, including the 160 U.S. PVOs registered with AID. This data base has limitations, however, in fully responding to the information requirement:

- . TAICH currently requests information from PVOs in several areas as open-ended questions so that PVOs respond in varying levels of completeness and detail on:
  - Program objectives
  - Categories of assistance (in 17 technical fields)
  - Countries of program assistance
  - Sources of funding
  - Number of personnel
  - Training for personnel.
- . TAICH's information, both as stored in its records and as published in its Directory, can be several years old.

In addition, TAICH cannot be expected to provide other than descriptive information supplied by the PVOs themselves, since, as a clearinghouse for an association representing PVOs, it is reluctant to assess the technical capabilities of its membership for AID.

(2) No Comprehensive Resource Listing All Local PVOs and Their Capabilities Exists

AID's internal records on local PVOs are limited:

- . Few of them have applied for registration and few are included in PVC's registration files
- . As with other AID project records, there is no mechanism to identify local PVOs as the basis for collecting evaluations, audits, and project implementation records on which to form an assessment.

The two major current sources of local PVO information, therefore, are:

- . Mission staff who have knowledge of local PVOs in their country, and other AID staff who have managed grants to them, e.g., in population planning or Women in Development projects.
- . Other PVOs, especially U.S. PVOs, which have developed contacts with local organizations in the course of their work.

There are problems with collecting technical capability data in both cases, however.

While mission staff are reported to maintain a good working knowledge of local PVOs in-country, several AID respondents noted that no standard definition of a local PVO exists in AID. Lack of a standard definition hampers central aggregation of information on the local groups and complicates the process of compiling country lists of active local PVOs. While some U.S. PVOs do have associations with local organizations, the PVO community tends to be specialized, making it difficult to trace which U.S. group is informed about which local groups. And again, the hesitancy of PVOs to offer judgments on each others' technical qualifications limits their usefulness in providing the kind of evaluative information on local PVO skills which is required.

(3) TAICH and Other PVOs Will Probably Remain the Most Appropriate Source of Information on Other PVOs and Private Non-Profit Organizations

The previous chapter pointed out that PVOs do not expect AID to supply general information describing the programs and qualifications of the full membership of the PVO community, both in this country and abroad. The need for this information, in the context of PVC's PVO information system, is therefore narrowly focused on answering the few questions about PVOs and other organizations which are referred to FVA/PVC and other AID offices for information. Several PVC staff noted that there is little demand for this information (several staff estimated between 10 and 20 requests a year) and that the questions tend to concern less than 20 PVO and other private organizations.

TAICH has served as the primary source for answering these questions in the past. While TAICH provides general descriptive information, it is just this level of description which is usually needed to answer the kinds of questions AID and FVA/PVC receive about PVO and other organizations which do not have a

working relationship with AID. TAICH's data base will probably suffice in the future to answer these inquiries.

The discussions conducted with selected PVOs for this study suggested that they may be developing additional information sources on PVO capabilities. Other PVO organizations and associations, following the general trend toward greater utilization of automated support, are creating data bases containing information on PVOs, their technical capabilities and specific geographic areas of experience. For example, PACT is building a PVO data base and other organizations are establishing data bases in specialized fields, i.e., in health care and population planning. However, it is too early to know whether these systems under development will be able to provide the kinds of information, with the detail, timeliness and quality needed in the PVO information system. An assessment of their potential for responding to AID's PVO information needs must therefore be deferred until these other PVO data bases have more operational experience.

(4) PVC Can Build Its Own Data Base on the Technical Capabilities of PVOs With Whom AID Has Frequent Associations

The need for information on the technical capabilities of PVOs is a critical requirement to the work and decisions of AID staff in Washington offices and in the missions. There is currently no single source which describes the basic qualifications of PVOs, permits identification of the set of PVOs with capabilities in certain sectors and countries or guides a search to more extensive documentation on a PVO's previous performance. Such information is critical for forming a judgment of a PVO's technical capabilities, especially on the registered U.S. PVOs and the local PVOs working most frequently in AID-funded activities.

PVC needs to build its own data base on PVO technical capabilities by systematically collecting and extracting information which already exists in AID documentation. A preliminary assessment is that information is needed on:

- . Program purpose
- . Sectors of experience
- . Countries of experience
- . Qualifications of current staff

- . Inventory of current and previous AID work
- . Inventory of major AID reports on the PVO (e.g., trip reports, evaluations and audits, as well as critical cables and correspondence, where warranted)
- . AID project officers and other staff who have worked with the PVO.

Information resources available to PVC staff to build an information base on PVO technical capabilities include:

- . TAICH's data base, which provides an initial set of information on countries and program areas where the PVO has experience
- . Lists of AID-funded activities which show where the PVO has AID-specific experience by country and sector
- . Registration materials, especially the annual reports, which describe a PVO's program and activities
- . AID evaluations and IG audits which indicate technical strengths, as well as weaknesses
- . PVO grant proposals which may summarize developmental assistance experience in a particular technical area and may also present current staff qualifications.

Systematic analysis of these sources is likely to identify areas where there is a need for more detailed or more current data elements to more fully assess technical capabilities. One area that immediately comes to mind is current staff qualifications. PVC has several options for obtaining this information. For example, PVC may decide to directly request information on staff qualifications from PVOs as part of the annual registration process. Or, PVC could request copies of PVO grant proposals submitted to other AID offices and missions which, when added to PVC's own proposals for centrally-funded grants could serve as an indirect source for compiling PVO staff qualifications information.

Since information on technical capabilities is highly perishable, a data base in PVC which would profile a PVO's experience and qualifications would serve to:

- . Orient staff unfamiliar with a particular PVO
- . Refresh an experienced staff member's memory
- . Provide a vehicle for storing important data updating PVO information
- . Refer the user to other staff whose knowledge and judgements are essential for a current and focused response to the need for capabilities information.

PVC does not need to collect original information on the larger PVO community beyond registered PVOs and other PVOs participating in AID projects. TAICH and other PVOs can respond adequately to this need, and may, as noted above, provide a more helpful source of information in this area, as their own information systems develop.

4. INFORMATION ON THE PLANNED ROLE OF PVOS IN COUNTRY-SPECIFIC DEVELOPMENT ASSISTANCE EFFORTS COULD BE EXTRACTED FROM THE CDSS

The PVO policy paper emphasizes review of planned PVO roles in each country's development strategy. While regional bureau, PPC and PVC staff are currently analyzing the Country Development Strategy Statements (CDSSs) during AID's CDSS review meetings to monitor the objectives of the PVO program, this information is not being organized and stored for future use and reference. PVOs request copies of CDSSs to evaluate AID's program initiatives and funding priorities as a basis for determining where to target their grant proposal activity.

As a result of one of the objectives of the PVO policy paper, each CDSS must specifically address the topic of PVO activities in the country, thus providing the basis for responding to two information needs of particular interest to the PVO community:

- . AID PVO program and funding priorities
- . Host country PVO activity priorities.

While the mechanisms are in place for PVC to collect the information, PVC must initiate actions to develop an information base in this area. This would involve abstracting AID and host country priorities by country and establishing the stored records to permit update and sorting. Mission staff will remain a primary resource for explaining the rationale and identifying operational shifts in AID program priorities. They will also remain the best

153

source of most recent information on host country attitudes toward PVO activity and priorities for PVO programs. When available, host country development plans, such as five-year plans, could also assist in determining possible opportunities for expanded PVO roles in the country.

5. AID DOCUMENTS ARE A POTENTIALLY RICH RESOURCE TO USE IN ASSESSING PVO PERFORMANCE, BUT THE RESEARCH PROCESS IS HAMPERED BY LACK OF REFERENCING AND INDEXING CAPABILITIES

In recent years, there have been several initiatives to strengthen AID's evaluation process for assessing specific project performance and impact as well as sectoral impacts and the "lessons learned" in specific areas of assistance. Much of the earlier discussion in this chapter on the resources and the collectability problems associated with assessing PVO technical capabilities is germane to this discussion of potential sources to meet the need for PVO project and program evaluation information.

(1) The FVA Bureau Now Regularly Receives PVO Project Evaluations and Has Begun to Index Its Holdings to Promote Access and Use

One of the important consequences of PPC/E's efforts to strengthen the evaluation process is that the evaluation officer in FVA/PPE receives copies of all evaluations on PVO activities, originating both in AID/W and the missions. PPC/E's new evaluation planning and monitoring system is also showing evidence of successfully monitoring scheduled evaluations to ensure that they are conducted and forwarded to AID/W. This includes evaluations of mission-funded PVO projects.

In addition, FVA's reorganization plans reinforce FVA/PPE's role as the Bureau's central source of PVO audit reports.

As a result of these actions, FVA does not have a major problem in collecting new materials upon which to develop evaluations of individual PVOs. There is, however, a problem in conducting historical searches, even of recent work, and in organizing existing information to facilitate a timely search for all relevant evaluative information on a particular PVO. There is an even more significant problem in distilling conclusions and recommendations about the PVO program as a whole from these assorted documents.

(2) FVA Shares the Agency's Problems in Distilling "Lessons Learned" From Its Institutional Memory

Exhibit IV-5, on the following page, summarizes the sources available to evaluate AID's PVO program performance. This exhibit shows that:

- . DIS currently has limited value due to the incompleteness of its holdings on PVOs and the time-consuming search required to identify needed materials.
- . A wide variety of AID documents, created to specifically respond to other questions, could potentially provide information which indicates the strengths, weaknesses and new directions for the PVO program.

While PVC cannot anticipate the full set of questions about the PVO program's performance which is likely to emerge (i.e., the Agency's expanded emphasis on small business enterprise and PVOs' roles in this area), it can develop the capabilities which promote a more comprehensive and less time-consuming search of sources which respond to the questions at hand.

(3) PVC Needs to Develop Its Own Library of PVO Evaluation Documents

PVC can support DIS by identifying critical documents on PVOs which should be centrally maintained and accessible in the DIS's holdings. It would appear, however, that PVC needs to establish its own library of relevant PVO documents for immediate availability to PVC and other FVA staff. While library holdings in themselves represent a resource for staff to directly research an evaluation issue from all known sources, a key to realizing the potential of such a system is an index which guides the researcher to relevant documents by PVO, by country and by sector. Such a referencing capability is also required to more fully assess PVO technical capabilities, since AID evaluations and similar reports are also a primary resource for this PVO information need.

(4) In the Longer Term, Other Agency Efforts to Build Project Data Bases May Respond More Fully to FVA/PVC Needs for Evaluative Information

As expressed earlier, FVA/PVC's potential for responding to the need for evaluation information is

EXHIBIT IV-5  
Assessment of Resources for  
AID PVO Program Performance Evaluation

| <u>Resource</u>   | <u>Assessment</u>   |
|---|---|
| AID evaluations and audits<br>(sectoral, comparative, LOP,<br>impact, etc.) | The historical record on previous PVO activity<br>with AID is incomplete, but new mechanisms and<br>procedures appear to be providing FVA with all<br>current PVO evaluation and audit reports.   |
| Development Information System (DIS)  | DIS has incomplete holdings on PVO records since<br>PVC, missions and other AID offices have not<br>had procedures to submit such documentation to<br>DIS in the past. There is no PVO identifier<br>to assist in a search of DIS holdings,<br>resulting in time-consuming searches which may<br>yield no useful information. |
| PPC sectoral analysis and policy<br>papers                                  | These provide a rich source of information, but<br>it is difficult to cull out, abstract,<br>distill, store and retrieve specific<br>information needed on PVO roles and<br>performance.  |

56

conditioned by Agency-wide difficulties in capturing data in an institutional memory and then in permitting a search for relevant information which crosses mission, regional bureau and central bureau organizational lines. PVC's need for PVO project evaluation data is a particularly good example of the Agency's problems in looking broadly at AID-wide efforts in decentralized activities which are managed by various organizational units.

FVA is currently participating in a project to improve the Agency's project portfolio management by rationalizing various data bases created and maintained by various bureaus and offices. The purpose of this project, under the direction of M/SER/IRM, is to permit gathering of required information across automated systems. As the project progresses, FVA/PVC may have more opportunities for accessing needed information to evaluate the PVO program as a whole by directly accessing "core" Agency project data bases.

6. THE TECHNICAL ASSISTANCE INFORMATION THAT PVOS NEED IS MADE AVAILABLE BY PVC THROUGH CONSULTANT SERVICES TO AID-FUNDED PVOS AND BY DEVELOPING DOCUMENTS AND APPLICATIONS TO FACILITATE THIS INFORMATION EXCHANGE

For many years PVC has provided technical assistance information to PVOS and has helped them to identify development resources, e.g., grants, training, consultant services, etc. It accomplished these objectives primarily through its co-operative agreement with the New TransCentury Foundation. For the past seven years the NTCF has provided management support services to AID-funded PVOs. Lately, it has shifted from the more traditional one-on-one consulting mode to an emphasis on sharing information and skills among the PVO groups it serves.

Under the new PVO policy, PVC has the primary responsibility for providing information on technical assistance and development resources. Its staff uses a wide variety of resources in carrying out this role, including materials developed by PVC, as well as services and documents available Agency-wide, such as:

- . Fact sheets explaining the PVO registration procedures and types of funding available to PVOS
- . Project design and evaluation materials developed by the AID's training office
- . Training available to PVOS from AID's in-house training facility
- . AID Handbook 13.

PVC's most pressing need is to be able to rapidly identify all available resources, not only within AID, but also those which are emerging within the PVO community. Often, the most useful role a PVC officer can perform is to direct the inquiry to one of the PVO associations or to one of the PVOs which begun to establish information systems, as discussed in the third section of this chapter on resources for meeting the requirement for PVO technical capabilities information.

7. PPC IS RESPONSIBLE FOR PVO FUNDING INFORMATION BY APPROPRIATION AND HAS INSTITUTED SEVERAL PROCEDURES TO ENHANCE THE COMPLETENESS AND RELIABILITY OF THE BUDGET AND ACTUAL ESTIMATES

PPC is the primary user of information on AID funding for PVO activities for two major purposes:

- . Reporting in the Congressional Presentation (CP) on the extent to which the Agency meets the required 12 to 16 percent level of funding to PVOs in earmarked appropriations.
- . Monitoring proposed PVO funding levels to recommend any changes needed in the PVO funding level and mix in order to meet the target funding levels and PVO policy objectives.

In the past, PVC has assisted PPC in these responsibilities by drawing upon its knowledge of and familiarity with PVO projects and other funded activities to help identify, trace and evaluate PVO funding information.

Responding to PVO policy paper initiatives, PPC has taken several actions to improve the effectiveness of the data collection process and the quality of funding information received on both centrally-funded and mission-funded PVO activities. The major actions include:

- . Specifying, in country ABS guidance, that PVO projects, and partial funding to PVOs, be identified in the ABS.
- . Requiring quarterly updates on obligations to PVOs through working sessions with regional DP officers and PVO Liaison Committee members.

PPC has identified several problems which limit the potential of its automated application, the Program Budget Data System (PBDS), from satisfying all the potential uses of its data base. The system currently cannot reliably report on all AID-funded project activity, which means that the data base cannot be manipulated to easily trace

actual funding data in other automated or manual applications. In addition, verification of actual funding levels is complicated by competing definitions used by regional and central bureaus and by different stages of obligation information gathered in other automated systems, especially COORS and PAIS.

It is also important to note that none of the AID staff interviewed for this study concluded that one hundred percent accuracy was needed to respond to either PPC's reporting requirements or to provide AID funding information on PVO projects needed by other Agency staff for a variety of purposes. There was general consensus that, while improvements in both process and results were warranted, the level of effort required to gain relatively modest increases in comprehensiveness and accuracy was not warranted.

While PPC is responsible for PVO funding information and has an automated application and operational procedures in place to carry out this function, PVC and other users need access to this information for other purposes, as described in Chapter III. PVC, in particular, needs access to a comprehensive listing of AID-funded PVO activity as the essential component for meeting its responsibilities as the Agency's pivotal broker of information on all PVO activity, both centrally-funded and mission-funded.

8. THERE ARE NO CENTRAL RESOURCES WHICH INVENTORY ALL AID-FUNDED PVO PROJECTS OTHER THAN BUDGET AND ACCOUNTING SYSTEMS WHICH PROVIDE LIMITED INFORMATION

Chapter III discussed the recurring question of what kinds of PVO activity AID is funding by country, by sector and by PVO. While this kind of information is not required to produce standard reports, it represents a core data base which could be accessed to direct the user to more detailed documentation or to other AID/W, mission or PVO contacts who could provide any needed judgmental information required about PVOs or AID's PVO program.

The best existing sources of summary PVO project information are the Congressional Presentation (CP) and PPC's reports which support the CP. Other contract, programming and accounting systems contain PVO project information, but, reflecting an Agency-wide problem, information from the various AID data bases cannot be cross-referenced due to technical incompatibilities in system structures and the lack of PVO name identifiers.

As with evaluation data, it is possible that the requirements for summary PVO project information could be

potentially satisfied, in the long term, through the efforts associated with the development of an Agency-wide core project portfolio management system. In the near-term, PVC needs to establish its own PVO project data base to respond to its own information required by other AID offices, missions and the PVOs. While there were several suggestions that the PVOs themselves could supply an inventory of all AID funding they receive, such an approach would not adequately respond to the information requirement since:

- . Not all PVOs have the management recordkeeping or staff resources needed to respond to such a request.
- . It can be anticipated that some portion of the PVO community receiving AID funds would provide incomplete information, and some would not respond at all.
- . The information would, in many cases, be submitted in the PVO's own fiscal year cycles, thus limiting AID's ability to manipulate and analyze the information.

The development of a core PVO activity data base is a critical need in the PVO information system.

## V. PVO INFORMATION SYSTEM REQUIREMENTS

This concluding chapter summarizes the requirements for a PVO information system and translates them into a system concept which provides a framework for the subsequent phase of system design. In the process of stating requirements, analyses and conclusions are provided on the suitability of different elements of the system for automation; where there is suitability, candidate hardware and software are identified. Highlights of management and staffing requirements are also presented.

The chapter is organized into five sections which:

- . Identify, on a preliminary basis, the capabilities which the system should have and describe candidate applications, given PVO information requirements
- . Describe characteristics of available hardware and how they match with the candidate automated applications, and what types of software appear best suited for them
- . Identify the key management and staffing requirements of the system
- . Summarize a the system concept
- . Describe the main components of the system design phase.

### 1. THIS REQUIREMENTS ANALYSIS IDENTIFIES 16 CANDIDATE APPLICATIONS TO PROVIDE THE INFORMATION, CAPABILITIES, AND REPORTS REQUIRED OF THE PVO INFORMATION SYSTEM

The preceding analyses presented conclusions on the kinds of PVO information needed by multiple users, existing resources to meet these needs and assessments of modifications which are necessary to them, and the capabilities needed to process the information available from a variety of sources (i.e., to collect, organize, analyze and store information and generate reports) into usable form. This section discusses provide preliminary conclusions on the candidate applications to be further examined in the design phase as a basis for specifying FVA/PVC's PVO information system. The term "application", as used here, refers to a set of interrelated functions and

capabilities which support a process, either manual or automated.

(1) Some General Principles Guided The Study's Approach to Identifying PVO System Applications

One of the fundamental assumptions, articulated by FVA/PVC, is that the system would include both manual and automated components. Other principles shaping the study's results are summarized below:

- . Use existing AID/W mainframe and other applications and data bases as much as possible
- . Explore the possibility of drawing PVO information from these existing sources and adding any new information required to keep the development of new data bases to a minimum
- . Rely on the AID or other organizational sources which are responsible for collecting required PVO information as much as possible, thus reserving for PVC the role of information broker.
- . Do not automate heavy textual materials, e.g., do not abstract PVO evaluation reports, but stress organizing and indexing them for ease of access.

The concept of sequential system development and growth was also important to these analyses about PVO applications. Several applications are more critical than others, both because of the criticality of the purposes they serve and their necessity as building blocks which must be in place before other applications can be developed and/or become fully operational.

(2) There Are Three Kinds of PVO Information System Applications

Examination of the purposes, uses, processing, storage and reporting characteristics of PVO information requirements lead to a conclusion that three categories of candidate applications are needed, as reflected in Exhibit V-1, on the following page:

- . Report-Generating Applications
- . Index and Referencing Applications
- . Telecommunications Applications.

EXHIBIT V-1  
Candidate PVO Information System Applications

Candidate Applications by Category

REPORT-GENERATING APPLICATIONS

Inventories of AID-Funded Projects by Country, by PVO and  
by Sector

PVO Registry Lists

Profiles of Registered PVO Qualifications and Technical  
Capabilities

Profiles of Local PVO Characteristics

Profiles of Selected Other PVOs and Private Non-Profits

Profiles of PVO Priorities for Funding by Country

Special, One-Time Only Analyses

INDEX AND REFERENCING APPLICATIONS

Evaluations and Audits by PVO, by Country and by Sector

Technical Assistance Resources by Technical or Functional  
Skill Area

Key Staff Contact Roster by PVO

PVO Project and Other Documentation by PVO

Frequently Referenced AID Handbook Procedures

TELECOMMUNICATIONS APPLICATIONS

Linkage to PBDS

Linkage to COORS

Linkage to PVO Shipping Statistics

Linkage to DIS

The first category includes, as the name implies, seven report-generating applications which directly process PVO information in formats required for report creation or to answer frequently asked questions about PVOs and AID's PVO program. On the other hand, the set of five candidate index and referencing applications shown in the exhibit guide the user to appropriate sources of information and provide mechanisms for updating and maintaining information which is as current as possible. The third category lists the four telecommunications applications potentially required to electronically enter information from existing mainframe applications into the PVO information system.

(3) The Seven Candidate Report-Generating Applications Suggest a "Core" PVO Data Base

A series of eleven reports could be generated from these seven applications. The eleven reports are:

- . AID Registry of Voluntary Agencies
- . Summary of PVO Support and Revenue
- . Summary of Percent U.S. Government Support of PVO Overseas Programs
- . Summary of PVO Expenditures
- . Registered PVO AID Experience and Technical Capabilities
- . Local PVO AID Experience and Other Characteristics
- . Selected PVO and Private Non-Profit Characteristics
- . Priority of PVO Roles and AID Funding by Country
- . Summary of AID-Funded Projects by Country
- . Summary of AID-Funded Projects by PVO
- . Summary of AID-Funded Projects by Sector.

Some of these reports would directly provide textual and numeric information for existing documents. For example, the first four reports listed -- the PVO registry, summary of PVO revenue, percent U.S. revenue, and summary of PVO expenditures -- are included in the annual report on voluntary foreign aid programs prepared by PVC.

Other reports could be distributed or used by PVC to develop additional reports responding to a variety of potential system users' needs. For example:

- . A report on registered PVO AID experience and technical capabilities would be particularly useful in formulating funding decisions based on a PVO profile listing, among other things:
  - Current and recent AID-funded projects
  - Countries of experience
  - Sectors of experience
  - Staff qualifications.
- . A report on planned PVO roles and funding priorities by country would assist PVOs in targeting their grant proposal activity and help AID review committees to assign priorities to PVO grant proposals.
- . A series of reports organizing AID-funded PVO projects in three ways -- by country, by PVO and by sector -- permits a powerful analysis and monitoring capability for a variety of AID/W and mission users.

The seven candidate report-generating applications suggest a "core" PVO data base, and the long-term potential of such a data base extends beyond the ability to create the kinds of standard reports suggested here. Such a PVO data base would also need an ad hoc query capability, with flexible search and sort functions, in order to support the special analyses application which would be accessed by multiple users and not limited only to PVC inquiries.

(4) Index and Referencing Applications Will Have To Consistently Capture Documents and Other Information from a Variety of Sources

Many of the PVO information requirements could be satisfied with a capability to effectively search through a large set of documents or unorganized sets of information to retrieve the data which serve the users' purposes. As the set of five candidate index and referencing applications presented earlier in Exhibit V-1 shows, these applications primarily respond to the information needs in two areas:

- . PVO evaluation information
- . PVO technical assistance information.

These applications, however, can also be used to supplement and possibly provide more depth to the information available from the set of five report-generating applications.

A good example of this reinforcement between these two applications categories is for assessing a registered PVO's technical capabilities. A user could initiate the process by reviewing the report on registered PVO AID experience and technical capabilities, which would be based on the report-generating application profiling registered PVO qualifications and technical capabilities. If the user found that this level of descriptive information was not sufficient, the user could then continue the search in one or more of the index and referencing applications:

- . The evaluation and audits application could be sorted by PVO to identify documents assessing that PVO's particular strengths and weaknesses in AID activities.
- . The "Key Staff Contact Roster by PVO" application could be used to determine which AID staff served as project officers or had other working relationships with the PVO in question as a basis for obtaining their first-hand observation of the PVO's technical capabilities.
- . The "PVO Project and Other Documentation by PVO" application could also be reviewed to identify relevant trip reports, briefing, correspondence and other materials to examine as a basis for judging a PVO's qualifications.

The major challenge which PVC faces with the index and referencing applications is the necessary first task of identifying specific data needed from specific documents in order to create useful classification schemes, and then organizing and storing the documents (much of which is already collected by PVC) in a manner which permits easy access.

(5) In the Near Term, Four Telecommunications Applications Appear to be Required

Exhibit V-1 shows telecommunications linkages to four AID mainframe computer applications. As will be discussed in more detail later in this chapter, these applications are needed to electronically supply existing Agency PVO information to PVC's system as the

basis for PVC's own "core" PVO data base and for more efficient search capabilities.

The rationale for these telecommunications applications is to retain data entry and maintenance responsibility for these automated data bases with the AID bureau which is already accountable for the collection and the quality of the data in those applications. FVA/PVC's role, then, is appropriately limited to accessing the information contained in these applications when needed. The main point here is that PVC does not need to replicate information processes for which other offices are responsible, i.e., PPC is responsible for Agency funding data in PBDS and S&T/DIU is responsible for project documentation in DIS. The primary task for PVC with respect to these applications, therefore, is rigorous maintenance of its own processes and procedures, whether manual or automated, for accessing and storing PVO information from these Agency-wide data bases.

The previous points have been made in the context of existing PVO resources. In the longer term, there may be other and potentially more responsive data bases within and outside AID, e.g., some of the emerging automated applications in the PVOs discussed in Chapter IV, which may warrant investigation for possible linkage in the future.

2. THE MAINFRAME, WANG OIS, AND MICROCOMPUTERS ARE ALL LIKELY TO HAVE ROLES IN THE PVO INFORMATION SYSTEM

Previous discussion of PVO information sources, needs and processing requirements identified numerous existing automated applications which are needed to either generate PVO information or which require PVO information input. All of these existing applications reside on the Agency's mainframe computer configuration in M/SER/IRM. With the implementation of the Wang OIS-140 advanced office automation system within the FVA Bureau and the advent of microcomputers in the Agency, two additional, smaller-scale tools are available on a "local" basis, directly in the hands of FVA/PVC users.

- (1) The Primary Characteristics of Applications Which Should Be Automated Are Systematically Collected Standard Data for Input, Factual Rather than Judgmental Data, and In Many Cases, The Existence of An Already Automated Source Data

The following criteria have been applied to the identified applications to screen them for suitability for automation.

- . Existence of source data in a standard form, which permits:
  - Systematic input from standard documents and forms
  - Development of standard structures for records (e.g., a PVO's capabilities) and data elements to allow consistent searches of files and data elements
  - Standard report generation
- . Sizable amounts of data, which make the manual activities which are associated with automation (e.g., coding, input keystroking) worthwhile when weighed against efficiency in processing and report generation
- . Required flexibility in processing and report generation (e.g., to sort PVO-specific information by PVO, sector, country)
- . Need to combine already automated information (e.g., PBDS and COORS)
- . Shared use of data by information consumers in FVA and other bureaus.

Applying these criteria to the 16 candidate PVO system applications described in the previous sections, the following applications can be identified as suitable for automation:

- . All seven of the report-generating applications
  - Inventories of AID-funded projects by country, by PVO and by sector
  - PVO registry files
  - Profiles of registered PVO qualifications and technical capabilities
  - Profiles of local PVO characteristics
  - Profiles of selected other PVOs and private non-profits

- Profiles of PVO priorities for funding by country
- Special, one-time only, analyses
- . One of the index and referencing applications -- evaluations and audits by PVO, by country and by sector
- . All four of the telecommunications applications to:
  - PBDS
  - COORS
  - DIS
  - PVO Shipping Statistics.

The next consideration is the appropriate type of automation, both hardware and software, for the application. Exhibit V-2, on the following page, describes the general selection criteria for assessing the fit between PVO system application characteristics and three hardware/software options available to FVA/PVC:

- . The Agency's central mainframe computer, with INQUIRE software programming and processing
- . Two types of microcomputers, the IBM Personal Computer (IBM PC) or the Apple II, and the standard software packages they offer
- . FVA's Wang OIS-140 word processing system and its optional List Processing software package.

Exhibit V-3, following Exhibit V-2, presents preliminary assessments of the appropriate hardware for PVO applications which appear to be good candidates for automation. Exhibit V-3 identifies four mainframe applications where a locally operated OIS may have a potential role for accessing (i.e., data entry or retrieval) and processing (i.e., analysis or special report production) information which would be stored and maintained on the mainframe, and three others which are more likely suitable for microcomputers because of the kind of data manipulation required.

As Exhibits V-2 and V-3 suggest, there are areas where FVA/PVC appears to have several alternative approaches to automation. Decisions resulting from the trade-off of each option's advantages and limitations need to be made as part of the detailed system design phase of work.

EXHIBIT V-2  
General Selection Criteria for Hardware/Software Options

| <u>APPLICATION CHARACTERISTIC</u>        | <u>HARDWARE/SOFTWARE OPTIONS</u>                                     |   |   |
|--|--|---|---|
|  | <u>IBM MAINFRAME/INQUIRE</u>   | <u>IBM PC OR APPLE II PLUS/PACKAGE</u>          | <u>WANG OIS 140/LIST PROCESSING</u>             |
| Main Memory Requirements                 | Unlimited  | Up to 1 MB/256K bytes                           | 48K bytes                                       |
| Record Size                              | Most extensive capability  | Relatively large capability                     | Most restrictive capability                     |
| Application Development and Modification | Requires highest level of special training and IRM technical support | Requires moderate level of ADP training         | Requires lowest level of training               |
| Application Maintenance                  | Requires IRM support   | Locally maintained, with occasional IRM support | Locally maintained, with occasional IRM support |
| Availability of Processing Time          | Limited by Agency-wide demands on the system                         | Continual                                       | Some limitation by demand from WP users         |
| Processing Speed                         | Fast   | Moderate to slow                                | Slow (5 records per second)                     |
| Query Capability                         | High-speed inquiry response time                                     | Moderately quick inquiry response time          | Slow inquiry response time                      |
| Simultaneity of Users                    | Limited by access to remote terminal                                 | Single user                                     | Single user                                     |
| Telecommunications Linkages              | Agency-wide, with remote terminals                                   | Limited   | Limited   |

EXHIBIT V-3  
Preliminary Assessments of Appropriate Hardware Candidates

| <u>Candidate Applications</u>  | <u>Candidate Hardware Type</u> |                       |
|--|--------------------------------|-----------------------|
| <u>REPORT-GENERATING APPLICATIONS</u>                                      | <u>STORAGE</u>                 | <u>ACCESS OPTIONS</u> |
| Inventories AID-Funded Projects<br>by Country, by PVO and by<br>Sector     | Mainframe                      | Microcomputer         |
| PVO Registry Lists   | Mainframe                      | OIS                   |
| Profiles of Registered PVO<br>Qualifications and<br>Technical Capabilities | Mainframe                      | Microcomputer         |
| Profiles of Local PVO<br>Characteristics                                   | Mainframe                      | OIS                   |
| Profiles of Selected Other<br>PVOs and Private Non Profits                 | Mainframe                      | OIS                   |
| Profiles of PVO Priorities for<br>Funding by Country                       | Mainframe                      | OIS                   |
| Special, One-Time Only Analyses  | Mainframe                      | Microcomputer         |
| <br><u>INDEX AND REFERENCING<br/>APPLICATIONS</u>                          |                                |                       |
| Evaluations and audits by PVO,<br>by Country and by Sector                 | OIS                            |                       |
| Technical Assistance Resources<br>by Technical or Functional<br>Skill Area | Manual                         |                       |
| Key Staff Contact Roster by PVO  | Manual                         |                       |
| PVO Project and Other<br>Documentation by PVO                              | Manual                         |                       |
| Frequently Referenced AID<br>Handbook Procedures                           | Manual                         |                       |
| <br><u>TELECOMMUNICATIONS APPLICATIONS</u>                                 |                                |                       |
| Linkage to PBDS  | Mainframe                      |                       |
| Linkage to COORS   | Mainframe                      |                       |
| Linkage to DIS   | Mainframe                      |                       |
| Linkage to PVO Shipping Statistics   | Mainframe                      |                       |

(2) The Mainframe Has Been Identified As the Candidate Source for Storage, Maintenance and Linkage in Eleven Applications

Applications which warrant use of the mainframe should have the following characteristics:

- . Existing automated data base on the mainframe which has to be tapped to meet PVO information needs
- . Relatively large volumes of data to be handled and stored
- . Relatively complex processing
- . Speed of processing
- . Multiple access by FVA and other bureaus.

As shown earlier in Exhibit V-3, a total of eleven applications meet these criteria:

- . All seven of the report-generating applications
- . All four of the telecommunications applications.

In considering the implications of mainframe applications, the Bureau needs to be aware that certain operational concerns are associated with applications housed on the Agency's mainframe:

- . Input operations are decentralized, with primary users responsible for their own data entry at remote terminals housed in their offices
- . Compared with the development or modification of applications on smaller scale hardware, such as the Warg OIS and micro-computers, a higher level of expertise is required and is obtained from M/SER/IRM, which already has a sizeable system development and maintenance work load.
- . At present, as pointed out in earlier discussions of existing mainframe data bases, there are some incompatibilities and inconsistencies in data bases; although several are being resolved, these problems could lengthen the time for developing some PVO data bases using existing applications.

In recent years, the Agency has converted its software processing mode to INQUIRE, and is designing all new applications with this data base management system. All the mainframe data bases for candidate PVO telecommunications applications, except PVO Shipping Statistics, are in INQUIRE. As a result, the PVO information system on the mainframe would also be designed in INQUIRE. The PVO Shipping Statistics system may well remain an independent mainframe application unless it is converted to INQUIRE.

(3) The Wang OIS is Potentially Suitable for One Referencing Application And As a Terminal for Accessing Information Stored in Mainframe Applications

The Wang OIS which has been installed in the FVA Bureau features some advanced office automation software which is of particular interest for some of the applications developed in this study. In addition, it has the advantages of multiple workstations, each of which could be used to input or extract data housed on the central storage disk.

Of greatest interest is Wang List Processing, a feature designed for records management. List Processing permits the construction of standard record formats and permits searches of records in a file with as many as 12 variables defining the search. The method of search is a simple sort of the records. Since sorting is List Processing's most sophisticated kind of manipulation, it should not be viewed as "data processing" as this term is conventionally used; for example, List Processing files cannot be automatically cross-referenced. Furthermore, the speed of searches is considerably slower than the mainframe can perform. Nevertheless, List Processing is desirable where records are not very large, file sizes are no greater than a few hundred records, search speed is not critical, and retrievals are not complex. There is also the added advantage in that once FVA staff are trained in List Processing, they can totally maintain and operate the Wang OIS for this purpose with no outside support or dependency.

As Exhibit V-3 shows, at the present time, only one application appears to be a suitable candidate as a Wang OIS List Processing application. This is the index of evaluations and audits by PVO, by country and by sector. A few of the other manual index and referencing applications may, in the future, warrant serious consideration as Wang OIS applications. If, for example, manual records on the key staff contacts

roster by PVO or on technical assistance resources available to PVOs by technical and functional skill area became large or were accessed frequently, they may be more efficient as advanced word processing applications.

While a number of applications can be adequately operated on the Wang OIS, it should be noted that in certain situations the processing of sizable List Processing and other advanced OIS applications could have negative effects on other uses of the system. For example, processing a large List Processing file could increase the response time for other applications, such as word processing, which is being performed at other workstations. List processing files could also consume a very large amount of storage space on the system disk if data are stored on-line. Accordingly, the development and operation of List Processing applications for the PVO information system needs to be closely coordinated by the Bureau's Wang OIS system administrator to ensure that scheduling of processing and utilization of on-line storage space does not unduly encumber other uses of the equipment.

(4) Microcomputers Could Play A Role in Three Applications

The Agency has acquired its first group of IBM Personal Computers and Apple II microcomputers and has planned to add about ten more each year. Like the Wang OIS, they are intended for placement in bureaus and offices and, following initial training, to be virtually totally supported by the users themselves. As computers, they are capable of more sophisticated data manipulations than the Wang OIS, but are, under most conditions, not as fast in operation as the Agency's mainframe computer. They do have the advantage, however, of no response time delays since they are stand-alone machines subject to no competition for use.

Perhaps the major advantage they offer is the existence of a wide array of commercially developed software, which is usable "as-is", or which can be tailored through small adjustments. On a preliminary basis, the following applications appear most suitable for use with microcomputers and commercially available ("packaged") software to process information which would be primarily stored on the mainframe:

- . Inventory of AID-Funded Projects by Country, by PVO and by Sector

- . Profiles of Registered PVO Qualificaitons and Technical Capabilities
- . Special, One-Time Only Analyses.

It is important to point out that at the present time, a recently approved AID microcomputer policy is intended to encourage the use of packaged software, rather than engage in unique programming efforts to custom design software for microcomputers.

3. IT IS ANTICIPATED THAT REQUIRED PVO APPLICATIONS CAN BE SUPPORTED BY FVA/PVC'S CURRENT PLANNED STAFFING LEVELS, BUT SOME TRAINING AND TECHNICAL SUPPORT WILL BE REQUIRED

Recognition of FVA/PVC staff ceilings was a major factor guiding the study's approach to a PVO system requirements study. Preliminary assessments of system management needs, however, indicates that FVA/PVC's staff request (presented to the AA/M in an action memorandum last January) for the new unit to operate this system is appropriate. As this request states, a junior level position, in particular, is needed for day-to-day system operation. There are several additional reasons, however, supporting a conclusion that no other additional staff should be required to maintain the applications:

- . The renewed emphasis on the multiple roles of all PVC staff as PVO information collectors, users and distributors enhances the critical mass of staff resources available to support PVC's information broker role.
- . Mechanisms for the systematic collection of needed PVO information in many areas have already been established by FVA, e.g., the PVO Liaison Committee.

Bureau management, however, should be aware of the discipline a PVO information system will demand if it is to perform effectively. PVC staff members will require some specialized training in INQUIRE, OIS or microcomputer applications, depending on the application specifications which will be developed during the design phase.

In anticipation of the design and development stage, FVA/PVC should be aware that certain software development will be required. Depending on final decisions on equipment configuration and system applications resulting from the design study, FVA/PVC may require the following types of assistance:

- . Customized design and implementation support for mainframe applications.
- . OIS applications software development.

Within its budget priorities and parameters, M/SER/IRM may assist FVA/PVC in software development and support, including assistance from contractors, if indicated.

4. THE SYSTEM CONCEPT THAT EMERGES IS AN AUTOMATED PVO DATA BASE, SUPPORTED BY BOTH MANUAL AND AUTOMATED INFORMATION RESOURCES, WHICH CAN BE DESIGNED FOR ACCESS THROUGH SEVERAL ALTERNATIVE HARDWARES

Exhibit V-4, on the following page, presents the preliminary PVO information system concept which emerges from the assessments of PVO information requirements, processing capabilities and hardware/software options. It is important to remember that this preliminary concept is subject to potentially significant refinements as the assumptions upon which it was constructed are subjected to rigorous feasibility analyses in the design and development phases.

One of the most important uses of this preliminary system concept is to:

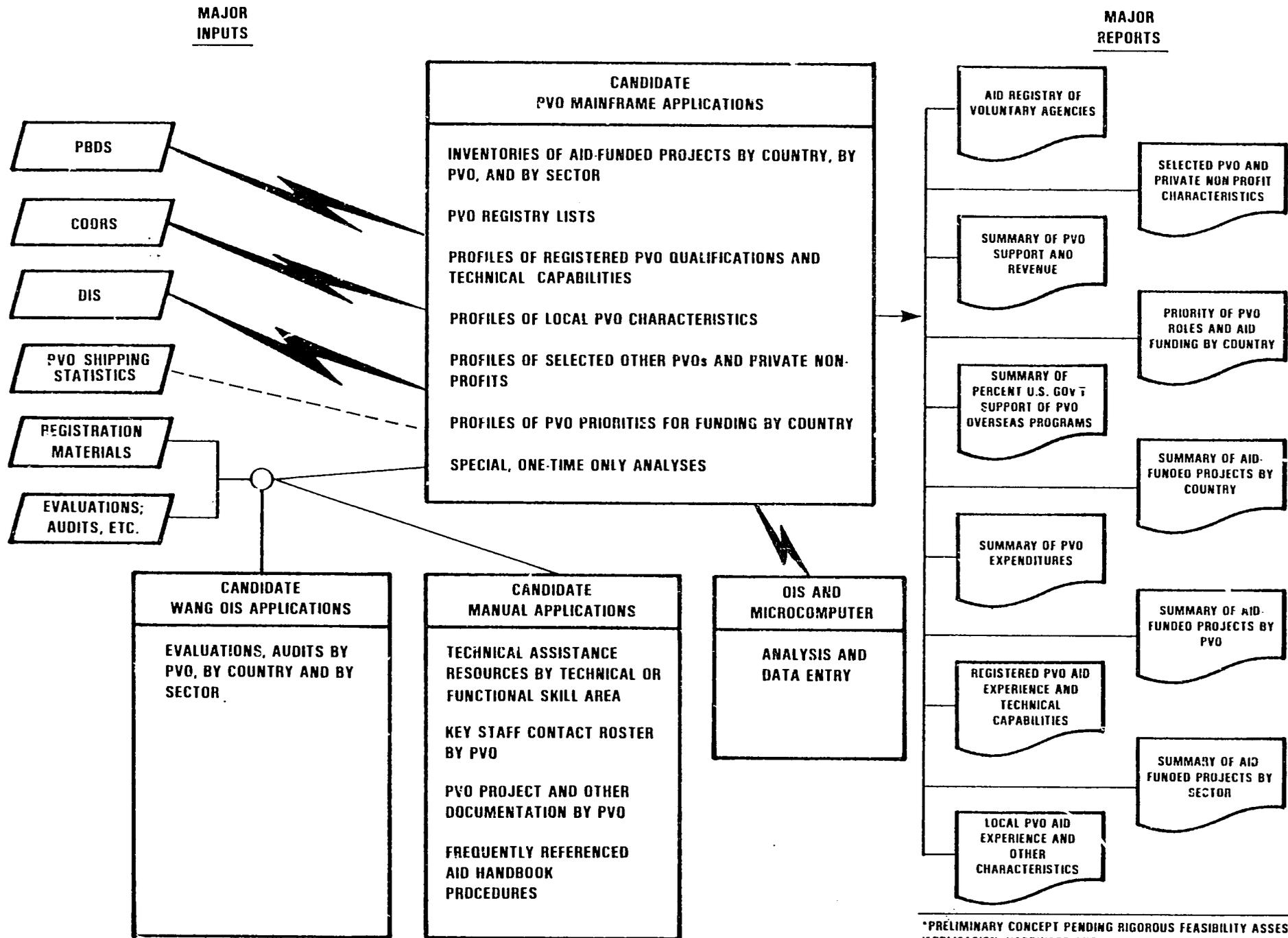
- . Provide an overview of system components
- . Summarize what the system must fundamentally do to support PVC's information broker role
- . Identify where the system could potentially:
  - Access the needed information from existing automated applications
  - Enter additional new information
  - Temporarily store a set of information for as long as it is needed to permit special processing, analysis, and report generating activities.

Such an overview is needed to stimulate consideration and agreement on the capabilities the system must provide to FVA/PVC.

Reviewing Exhibit V-4 provides the following system description:

- . Information sources include both automated and manual applications

**EXHIBIT 4**  
**OVERVIEW OF PVO INFORMATION SYSTEM CONCEPT\***



\*PRELIMINARY CONCEPT PENDING RIGOROUS FEASIBILITY ASSESSMENT (APPLICATION, HARDWARE AND SOFTWARE) IN DESIGN PHASE

- . Agency mainframe applications, e.g., PBDS, which provide needed PVO data elements could be electronically linked to the PVO mainframe applications in order to retain responsibility for data collection and integrity within the offices responsible for these existing applications .
- . The set of seven applications, which appear to be good candidates for the mainframe computer, represent a "core" PVO data base:
  - This data base will probably have to be constructed as a "go forward" system with no historical records upon start-up
  - Historical records can be built into the applications over time, and, given PVO information requirements, there appears to be a need for a PVO data base with three to five years of historical data
- . A series of standard reports, eleven of which are indicated at this time, would be generated from the system
  - The reports can directly meet several existing reporting requirements, e.g., PVC's annual PVO report
  - They can also be the basis for PVC staff to create additional standard and special reports for distribution to appropriate PVO system users
- . One of the five index and referencing applications can be operated on the OIS, and other manual applications could eventually become OIS candidates as they become systematic processes which are frequently used
- . There are alternative approaches for accessing the mainframe applications for data entry, for cross-referencing and for analysis using:
  - Mainframe remote terminals already in place in FVA
  - Wang OIS workstations
  - Microcomputer.

This system concept responds to FVA/PVC's most pressing needs for PVO information and to fulfill PVO policy

paper objectives for PVC's information broker role. It is also a system concept which assumes and expects further applications development, processing capabilities and equipment refinement responding to PVC's own growth in its expanded roles in the PVO program.

5. THE DESIGN PHASE OF THE DEVELOPMENT OF A PVO INFORMATION SYSTEM IS A SUBSTANTIAL UNDERTAKING THAT TRANSLATES REQUIREMENTS INTO A WORKABLE SET OF DETAILED SPECIFICATIONS FOR REVIEW AND SUBSEQUENT IMPLEMENTATION

The immediate next step for FVA Bureau management is to review this requirements study to confirm that the requirements are correct. Although significant efforts were taken to develop information requirements which are supportable, viewing them in the logical framework provided by this report provides another opportunity for management to consider whether all information-related needs are worth satisfying.

The subsequent phase of the system development cycle is the design phase, which determines in some considerable detail how the requirements should be met. This phase requires both management analysis work, as well as a significant level of automation expertise because of the hardware and software issues which need to be solved before implementation can be initiated. In addition, since the system concept embodies both automated and manual elements, care must be taken to ensure that these two types of operating modes mesh appropriately.

The first step is the creation of a general design, which specifies:

- . Any appropriate subsystems with function-specific purposes
- . Necessary input and output documents
- . The characteristics of necessary data bases.

Each one of these elements needs to be related to all other elements, both in terms of function and in terms of data flow. At the conclusion of this step, management can again react to the system concept which the general design document will have operationalized.

In the process of creating this general design, the feasibility of certain features of the system has to be tested. For example, the necessary interface between PBDS and a data base of core PVO information needs to be examined. Each existing source document needs to be closely reviewed to determine its inclusion in the system and to

determine if it needs to be modified; this analysis will also reveal if any new ones have to be created. Outputs reports also have to be specified and checked against users' requirements.

Subsequent steps in the design process take the general design specification down to a detailed levels. Individual steps are devoted to determining performance specifications, e.g., time requirements, hardware characteristics and the specification of individual programs and associated documents (input and output).

Variables which will determine the specific scope, time, and effort required in the design include the mix of professional expertise required (FVA/PVC, IRM or a contractor), level of system documentation needed, criticality of individual requirements, as judged by management, and the availability of funds for the project.

113

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON D C 20523

AID General Notice  
M/SER/IRM  
April 29, 1983  
Issue Date: 5-2-83

SUBJECT: Establishment of the AID Office of Information Resources Management

Effective April 15, 1983, the AID Office of Information Resources Management is established within the Directorate for Program and Management Services, Bureau for Management. The new Office--M/SER/IRM--is comprised of the combined staffs of the Offices of Data Management and Management Planning which are concurrently abolished.

M/SER/IRM's primary responsibilities include:

- . administration of the Agency's worldwide automation program, including management of the central computer facilities;
- . provision of management assistance and consulting services to AID/W Bureaus/Offices;
- . review and approval of the automation components of AID projects;
- . administration of management programs mandated by statute, Federal regulation, or initiated by AID (e.g., Directives, Organization, Forms and Reports Management, Quality/Productivity Improvements, and programs prescribed by such OMB Circulars as A-76, A-120); and
- . establishment of Agency policies and standards for the above areas.

Through a fully integrated, multidisciplinary staff of ADP specialists, and management, program, and systems analysts, M/SER/IRM will provide a strengthened Agency capacity to examine and resolve internal management problems with particular emphasis on making increased use of automation technology, and to coordinate the management of information as a resource within AID pursuant to the Paperwork Reduction Act of 1980. A principal feature of the M/SER/IRM structure is its client-orientation. All field-related services will be provided through the Mission and Program Services Division, with services to AID/W offices provided through the following divisions as indicated below:

Central Services Division--A/AID, PPC, S&T, PRE, BIFAD/S, ES, EXRL, LEG, OPA, IG, GC, and SCI.

Regional Services Division--ASIA, AFR, NE, LAC, FVA, M (except FM), EOP, and OFDA.

Financial Services Division--M/FM, plus FACS.

Systems Management Division--which will continue to provide direct support to currently assigned automated systems and to new automated systems upon their implementation, documentation and acceptance.

The attached organization chart indicates the major responsibilities of all M/SER/IRM units. A detailed statement of functions will be published in AID Organization Handbook 17, Chapter 18.

The names, room locations, and telephone numbers of IRM senior staff. (The names, telephone numbers, and room locations for all IRM staff are being provided in a separate AID/W Notice.)

|   |          |
|---|----------|
| Director, Paul P. Spishak, 725 SA-12.....             | 632-7962 |
| Deputy Director, Phyllis A. Drohat, 725 SA-12.....    | 632-7962 |
| Special Assistant, Joseph Ellis, 725 SA-12.....       | 632-0036 |
| Special Assistant, George Leyland, 725 SA-12.....     | 632-3962 |
| Planning and Evaluation Division (M/SER/IRM/PE)       |          |
| Chief, Linwood A. Rhodes (Acting), 714 SA-12.....     | 632-0084 |
| Mission and Program Services Division (M/SER/IRM/MPS) |          |
| Chief, William C. Ruotola, 706 SA-12.....             | 632-9744 |
| Technical Support Division (M/SER/IRM/TS)             |          |
| Chief, Willard W. Lee, 709 SA-12.....                 | 632-3593 |
| Associate Director for AID/W Client Services          |          |
| William J. Follen (Acting), 725 SA-12.....            | 632-0092 |
| Regional Services Division (M/SER/IRM/CS/RS)          |          |
| Chief, Gwendolyn H. Joe, 721-C SA-12.....             | 632-0032 |
| Financial Services Division (M/SER/IRM/CS/FS)         |          |
| Chief, William J. Follen, 725 SA-12.....              | 632-0092 |
| Central Services Division (M/SER/IRM/CS/CS)           |          |
| Chief, Peter Salinger, 725 SA-12.....                 | 632-0092 |
| Systems Management Division (M/SER/IRM/CS/SM)         |          |
| Chief, Eugene Dwyer (Acting), 719 SA-12.....          | 632-0032 |
| Mandated Management Programs Division (M/SER/IRM/MMP) |          |
| Chief, Richard F. Calhoun, 708-H SA-12.....           | 632-2862 |
| Automation Support Division (M/SER/IRM/AS)            |          |
| Chief, Herbert B. Thompson, 737 SA-12.....            | 632-9650 |

The certified employee bargaining units have been advised of the foregoing organization change.

Attachment:

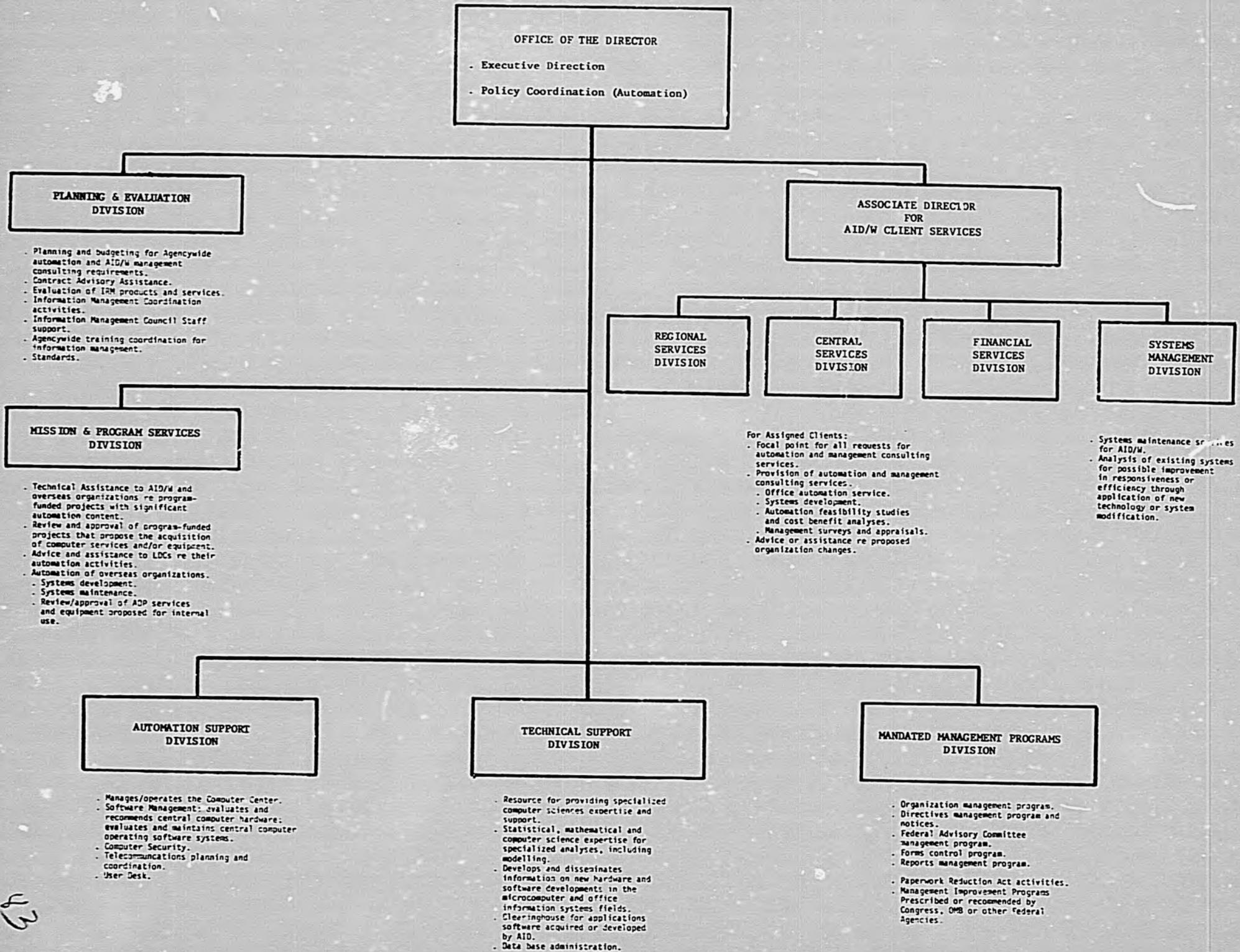
Office of Information Resources Management Organization Chart

DISTRIBUTION:

AID Lists H and B-1, Position 8

Q7

OFFICE OF INFORMATION RESOURCES MANAGEMENT



43