Final Report

Performance Indicators Baseline Study

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GLOSSARY

ACBAR	Agency Coordinating Body for Afghan Relief
ADT	Agricultural Development and Training, ASSP
AF	The Asia Foundation
A.I.D.	U.S. Agency for International Development
AID/Rep	Office of the A.I.D. Representative for Afghanistan Affairs
alaqadari	section of a *woleswali*, sometimes considered a separate entity (subdistrict)
ANRAP	Afghanistan Narcotics Research and Awareness Program
ASSP	Agricultural Sector Support Project, AID/Rep
AVICEN	Afghanistan Vaccination/Immunisation Centre
CARE	CARE International
CCSC	Construction Control Services Corporation
CDIE	Center for Development Information and Evaluation, A.I.D.
CMC	Coordination of Medical Committees
CRTA	Construction-Related Technical Assistance, IRC
DAI	Development Alternatives, Inc.
DCA	Data Collection and Analysis Unit, AID/Rep
FEP	Female Education Program, IRC
GIS	Geographical Information System
HIS	Health Information System, WHO
IMC	International Medical Corps
IOM	International Organization for Migration
IRC	International Rescue Committee
kariz	underground aqueduct used for centuries in Afghanistan supply water
MARIS	Marketing Information System, PSA
MCD	minor civil division, one of Afghanistan's 325 established geographical units, mostly *woleswali* but including some separately recognized *alaqadari*
MSH	Management Sciences for Health
MT	metric ton
NGO	nongovernmental organization
OMB	U.S. Office of Management and Budget
PBB	Performance-based budgeting system, Asia Bureau
PDS	Performance Database System: the specific dBASE computer system used within PPIRS
PPIRS	Program Performance Indicators Reporting System: the overall monitoring and reporting process
PRISM	A.I.D.'s Program Performance Information System for Strategic Management
PSA	Private Sector Agribusiness, ASSP
RAP	Rural Assistance Program, IRC
REP	Standard data entry system provided AID/Rep contractors
REPCONV	Computer program for converting contractors' project data into the DCA data format
Ronco	Ronco Consulting Corporation

GLOSSARY
(continued)

Rupees (Rs)	Pakistani currency (official rate Rs 24.01 = US$1.00 as of July 1, 1991)
UNDP	United Nations Development Programme
UNO	University of Nebraska at Omaha
VITA	Volunteers in Technical Assistance
woleswali	long-standing geographical unit of local government in Afghanistan (district)
WFP	World Food Program
WHO	World Health Organization

PREFACE

This report was prepared for Delivery Order No. 17 of A.I.D. Contract No. 306-0205-C-00-9385-00, the Afghanistan Studies Project, a joint venture between Nathan Associates Inc. and Louis Berger International, Inc., in association with Atlas Associates, Inc. The research effort was carried out by a three-person team of consultants: Dr. Phylo Evangelou, Agricultural Economist; Dr. Barton Sensenig, Sociologist; and Mr. Robert Barclay, Computer Systems Analyst. Mr. Harvey Lerner served as home office coordinator, and Mr. Curt Wolters served as Program Officer and Officer-in-Charge of Delivery Order 17. The team would also like to thank Mr. Robert Bakley, Mission Director, and Ms. Nancy Hardy, Program Officer, who filled in for Mr. Wolters during his absence. Special thanks are due to the many AID/Rep contractors who gave generously of their time to help set up the database system. A list of many of these contacts and interviewees is provided in Appendix G.

EXECUTIVE SUMMARY

A management priority for the Office of the A.I.D. Representative for Afghanistan Affairs (AID/Rep) is establishing a system by which the Mission can regularly monitor and evaluate its program achievements. In addition to meeting AID/Rep's management needs, the information provided by such a system can be expected to serve agencywide strategic initiatives aimed at improving A.I.D.'s overall performance. This delivery order is an initial step in the formation of the system, the Program Performance Indicators Reporting System (PPIRS), and has three principal objectives. The first is to identify and define performance indicators for AID/Rep's cross-border assistance program; the second, to design an implementation plan for generating and reporting the indicators; and the third, to carry out selected tasks to make the system operational. The study team has met these objectives by drawing on (1) AID/Rep documents on Mission goals, objectives, and performance indicators; (2) database software (produced in the preliminary stages of system development) for gathering and processing data on AID/Rep projects; and (3) information collected from AID/Rep officers and contractors.[1]

AID/Rep faces a particularly difficult task in evaluating the Mission's program performance. The problems of reliably monitoring cross-border flows of goods and services have been significant. Estimating the impact of these goods and services on targeted groups has been even more problematic. The study team's first task has been to propose tentative performance indicators and specific measures that yield meaningful information and are realistically obtainable in the Afghanistan context.

Recognizing the program's special circumstances, this study focuses on measures of inputs and performance (outputs). Inputs are simply expenditures. Outputs are measured in various quantitative units such as persons trained, kilometers of roads repaired or textbooks delivered. The ratio of outputs to inputs indicates efficiency, and comparison of performance with program targets reflects effectiveness.

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[1]The term "contractor" is used throughout in the general sense of contractors and grantees. The World Food Program is considered a contractor when serving as a channel for AID/Rep emergency relief assistance.

The use of impact measures does not appear to be feasible within Afghanistan under current circumstances. Impact refers to longer term effects that could eventually be detected through special studies, remote sensing techniques, or published data not now available.

AID/Rep's Data Collection and Analysis Unit (DCA) is the data-processing and reporting hub of the performance evaluation and monitoring system. The computer system installed (written in dBASE III Plus and compiled in Clipper) enables contractors to submit their data by using a standard set of activity codes. Depending on the degree of computerization of each contractor's database, quarterly and year-to-date data submissions to DCA will be by either direct data entry or computerized conversion of contractors' data into the DCA format. Arrangements for data submission have been made with the major AID/Rep contractors. (Mercy Corps International in Quetta could not be contacted by the study team, and its submissions are being arranged by DCA.)

DCA is expected to produce two major types of reports. The first will describe the geographical distribution of AID/Rep's technical assistance. Incorporation of location codes will enable the system to provide district-specific information on AID/Rep's projects, assist DCA in its monitoring responsibilities, and facilitate DCA's coordination with other organizations maintaining databases on Afghan humanitarian assistance activities. The second report will present information on the overall performance of the AID/Rep program. Summary performance measures will permit inputs and activities to be related to more than one Mission objective.

The study team accomplished several initial tasks required for implementation, which include

- Suggesting tentative Mission objectives and indicators,
- Proposing specific performance measures,
- Establishing data linkages between contractors and DCA,
- Revising the computer program for the Performance Database System (PDS),
- Finalizing the data entry program
- Specifying data conversion programs, and
- Documenting the database system.

Several activities remain to be performed before the system becomes fully operational. A schedule is proposed for accomplishing the following:

- Training DCA's Monitoring System Specialist,

- Finalizing data conversion programs,
- Collecting baseline data,
- Incorporating population estimates and other contextual data into the PDS database program,
- Refining and producing performance reports,
- Producing trend analyses,
- Reviewing and revising the system, and
- Designing DCA's special studies program to complement the PDS database.

Chapter 1

INTRODUCTION

Objectives

The objectives of this assignment are to

- Identify, define, and select performance indicators and a baseline data series for measuring achievement of Mission goals and objectives;
- Provide a plan for implementing the Mission's performance budgeting system; and
- Define and, where appropriate, carry out selected assignments required to make the system operational.

This report proposes a set of performance indicators, recommends a computer-assisted reporting system, and provides a plan for system development. It summarizes progress toward agreement on Mission goals and objectives, contractor reporting arrangements, and the system's computer program development.

Background

This assignment is the second in a series aimed at developing the proposed AID/Rep Program Performance Indicators Reporting System (PPIRS). Such a system was conceptualized in response to two strategic initiatives. The first was the Mission Director's effort to regularize AID/Rep's program in accordance with standard A.I.D. development concepts. The second was AID/Washington's (AID/W) mandate for an agencywide program performance information system.

AID/Rep's mission originated as cross-border humanitarian assistance for disrupted Afghans, at a time when the *mujahidiin* were leading Afghan resistance

against Soviet aggression. Today, Soviet troops have withdrawn from Afghanistan and, globally, confrontational relations with the West are being replaced by the search for means of cooperation. Thus, AID/Rep can begin to look toward a new role as a more conventional development assistance mission. Organizational linkages are being normalized, and relief efforts are being brought into a more conventional development mode. During this transition to a more standard A.I.D. approach, AID/Rep has a greater need for reliable monitoring of inputs and outputs than for information on ultimate social impact.

AID/W's interest in an agencywide program performance indicators system stems from Administrator Roskens' initiative to "strengthen the role of evaluation in A.I.D." announced in October 1990. This announcement led to the draft by A.I.D.'s Center for Development Information and Evaluation (CDIE) of "PRISM: An Agency-wide Program Performance Information System for Strategic Management" in April 1991 and the Asia Bureau's component "Program-based Budgeting System" in June 1991. Both are intended to provide better information on program results and more informed management decision making.

AID/W's performance indicators initiative is based on several years of effort that began in the 1960s. "Planning, programming, and budgeting" was followed by "management by objectives" and now by PRISM's "management by results." Impetus for these efforts stems from a desire to effectively document accomplishments for Congress and the Office of Management and Budget (OMB) as well as from dissatisfaction with evaluations that often examined only inputs and outputs and not impacts related to purpose and goals. AID/Rep's performance indicators system is expected to serve Mission management's decision-making and reporting needs, by providing a core of basic measures for AID/W as well as a set of supporting, Mission-oriented data.

In both its conceptual and operational aspects, major groundwork for this assignment was set by three AID/Rep documents. Program objectives and indicators were proposed in a paper by Curt Wolters entitled "Baseline Data in the Context of the Cross-Border Humanitarian Assistance Program" (May 1990). Wolters reviewed AID/Rep project activities, setting the stage for designing and organizing a baseline data system. In doing so, he emphasized Afghanistan's special context within which performance must be measured.

In "A Computer System for AID/Rep Performance Indicators" (November 1990), Ron Barney developed a set of coded inputs and activities to be used in collecting and processing data. Proposed reporting of the data was based on broadly stated performance indicators derived from Wolters's report. This system, with minor modifications, is at the heart of PPIRS.

Third, a draft "Afghanistan Strategy Document," issued by AID/Rep in May 1991, provided the study team with stated Mission goals that are essential to a program performance evaluation system. The goals are categorized into three anticipated phases: the initial survival stage, a renewal stage (the transition period between political settlement and establishment of a new national government in

Afghanistan), and reconstruction (commencing with AID/Rep's return to Kabul). The document describes program shifts in emphasis as the Mission progresses from survival toward renewal and reconstruction phases. Since the Team's departure, the Mission has continued to develop its program goals and objectives. The substantive background provided by these three documents proved invaluable to the study team's progress in implementing PPIRS.

Scope of Work

AID/Rep's performance information system is in its infancy and will develop gradually; this assignment is only one step in the process. The scope of work has centered on clarifying objectives and information needs, formalizing contractor reporting procedures, revising the computerized database, and specifying performance reports (see Appendix A). Major areas of activity have included

- Achieving Mission consensus on program objectives and performance indicators,
- Determining the capability of contractors to gather and submit the required data and establishing data linkages between them and AID/Rep's Data Collection and Analysis Unit (DCA),
- Initiating implementation of PPIRS, and
- Recommending follow-up activities required for the system to become fully operational.

Organization of the Report

This chapter provides an introduction and brief overview. The second chapter of this report analyzes program-based budgeting in the AID/Rep context. It considers critical issues that influence system design and discusses the special problems of AID/Rep's monitoring, concluding with implications for system characteristics.

Chapter 3 considers alternative systems, ranging from the simple to the elaborate, and suggests a flexible, step-by-step approach to developing AID/Rep's system through successive stages of specification and elaboration based on experience.

The overall structure of the recommended Program Performance Indicators Reporting System (PPIRS) and procedures for reporting and using performance indicators are described in Chapter 4. The Data Collection and Analysis Unit (DCA) is highlighted as the center for these operations. Chapter 4 also presents a

suggested organization chart and discusses the roles and responsibilities for data collection, analysis, and report utilization.

In Chapter 5 the study team considers tentative objectives, indicators, and performance measures for the transitional period, in which human resources development will be the primary focus of the Mission program. In accordance with step-by-step system development, indicators for later phases will be specified on the basis of experience gained from the current proposals.

Specifications for the computerized Performance Database System (PDS) and its two programs are provided in Chapter 6. REP, the main computer program for entering data and printing reports, is described. The second program, REPCONV, converts data automatically from contractors' databases into the PDS format.

The final chapter of this report presents a proposed implementation plan, including roles and responsibilities for AID/Rep and contractors, as well as recommendations for further technical assistance. The plan includes estimates of the costs associated with the data collection efforts.

Technical details are found in eight appendixes: Scope of Work, Activity Code Report, Using the Performance Database System, Data Entry Instructions, Conversion Instructions, How to Modify Performance Measures, List of Contacts and Sources, and Selected Bibliography.

Chapter 2

PROGRAM-BASED BUDGETING IN THE AID/REP CONTEXT

The Changing Nature of the AID/Rep Program

The AID/Rep program for Afghanistan has always operated under extremely volatile circumstances of both military and political conflict, where conditions and corresponding plans often change very quickly. The Mission was initially established as a rather unique entity, physically located in Pakistan with no official counterpart organization in Afghanistan. Its program was largely to provide cross-border *relief* to war-affected Afghans while resistance forces within Afghanistan combatted the Soviet invasion. In the light of the withdrawal of the Soviet army and the new cooperation between the United States and the Soviet Union, the path may be opening toward removal of external interventions and the reestablishment of regular diplomatic relationships with Afghanistan. Thus, AID/Rep may well be moving towards regularization of its program into a more standard A.I.D. *development* format.

Modifications to the Mission's program stress human resource development in place of earlier emphases on relief and cross-border activities. Specific modifications include (1) consolidation of AID/Rep's vocational, technical, and participant training programs into a centralized Human Resources Development (HRD) project; (2) shifting relief efforts to the United Nations by turning over P.L. 480 Title II emergency food assistance to the World Food Program; (3) eliminating other cross-border commodity shipments; (4) closing the transportation unit within the Afghan Construction and Logistics Unit (ACLU); and (5) eliminating AID/Rep's Private Sector Agri-Business component, which provided subsidized agricultural inputs from Pakistan.

In accordance with A.I.D.'s principle of "doing a few things well," three other Mission activities were recently eliminated: (1) certain antinarcotics interventions, (2) aerial evacuation of war wounded, and (3) agricultural programming, planning, and analysis activities.

AID/Rep Information Needs

The aim of a performance information system such as PPIRS is to provide timely and relevant data for improving program decision making, implementation, and evaluation. PPIRS's immediate purpose is to meet the information needs of AID/Rep management, especially the Director and program officers. Their ability to accurately assess both progress in attaining program objectives and efficiency of resource use depends on an accessible and reliable information base. Performance indicators derived from regularly collected data can rationally provide the basis for modifying program activities and patterns of expenditure.

As long as AID/Rep's program depends on cross-border operations, it faces a particularly difficult challenge for instituting a performance evaluation system that extends beyond monitoring of input deliveries. Ideally, the effects of project activities on target populations should be assessed. For example, in the case of provision and rehabilitation of agricultural infrastructure, the impact-related question is not simply, "Has rehabilitation of particular agricultural infrastructure resulted in increased production?" but rather, "What effect has the project had on food availability and the community's dietary welfare?" Unfortunately, acquiring impact-related performance indicators for AID/Rep's program is not feasible at present, given the Mission's restricted operating circumstances. Thus, performance measures recommended by the study team are limited to input and output measures.

Despite the limitations of sole reliance on input-output information, a system for tracking and assessing achievements in relation to objectives has considerable managerial value. The initial goal of PPIRS is to provide such a system for monitoring AID/Rep program accomplishments. The system will permit program-wide analysis of geographical and sectoral trends in input and output achievements and, in time, will allow insights into developmental change that can be attributed to the AID/Rep program.

Monitoring in the Afghan Context

The two major constraints to effective performance monitoring in the Afghan context are security and cultural considerations. Since the Soviet invasion and its aftermath, security factors have prevented U.S. personnel from entering Afghanistan and therefore limited AID/Rep to a cross-border operation. Management is so removed from field activities that monitoring must focus on gathering evidence that the activity is being carried out as planned rather than on its ultimate social impact.

For security reasons, monitoring teams must make arrangements in advance and arrive accompanied by armed guards. Thus, "surprise" visits are virtually impossible. Performances can be staged solely for the purpose of impressing

monitors. One monitoring team reported that a teacher and students ran to get to the school ahead of the team's jeep.

Security difficulties are compounded by cultural considerations. Some Afghan monitors, motivated by the desire to please their superiors, have been found to write intentionally biased reports (i.e., report favorable results regardless of actual conditions). To counteract inaccurate monitoring, AID/Rep contractors have employed various verifying systems. Rigorous checks used by some contractors require that monitors acquire photographs and signatures of field workers for comparison with file copies. Increasingly, monitoring teams include third-country nationals to ensure more objective reporting. The proposed performance indicators system also includes an independent DCA monitoring team to supplement contractor monitoring.

AID/Washington Guidelines

PPIRS will help Mission management reporting to AID/W's agencywide performance indicators system for strategic management (CDIE's PRISM) using the Asia Bureau's performance-based budgeting (PBB) system.

PRISM is intended to guide senior decision makers in implementing A.I.D.'s management theme of "doing fewer things, but doing them very well." In drafting PRISM, CDIE recognized that no single set of indicators will satisfy every manager and envisioned a network of partly overlapping systems. Only a few core measures are expected to be common to all Missions. The remainder will be specific to various locations, according to Mission and Bureau needs. The initial draft PRISM system seeks 10 to 15 performance indicators for 4 to 6 key strategic objectives.

Performance-based budgeting, the Asia Bureau's approach to PRISM, incorporates considerable flexibility and avoids mathematical formulations. The purpose of PBB is to use the budgetary allocation process to achieve the greatest possible developmental effect by supporting efficient, results-oriented programs. Missions report on (1) program performance (indicators, management measures, and focus), (2) country assessment (policy context and relative needs), and (3) U.S. and transnational interests (political, economic, human rights, environmental, and statutory concerns such as narcotics control).

Critical Issues

Nature of the Performance Indicators System

Perceptions vary about who the Performance Indicators System is to serve and how it is to be used. AID/W management wants an agencywide system for guidance in allocating agency funds and for more effective reporting to Congress

and OMB. The Asia Bureau's performance-based budgeting also emphasizes use of the information in budget allocations.

Within AID/Rep, the system will serve the Director and program officers in reviewing Mission performance—to improve ineffective program components or reallocate funds among projects—and in reporting to AID/W. Finally, the system can also serve AID/Rep project officers, by providing improved monitoring and reporting on such issues as the geographical distribution of assistance.

The core of the proposed performance indicators system is designed to serve the needs of higher Mission management—the Mission Director and Division Chiefs. It will consolidate data on mission activities into a few concise performance indicators reflecting progress toward overall goals. This should assist Mission management in both improving performance and reporting to Washington.

Project officers generally need more information than can be summarized in a few indicators. They will benefit from DCA's independent monitoring and from the reports that indicate the geographical distribution of activities. As the system develops, additional reports can be added to serve project officers.

Program versus Project-Level Indicators

Much of the current concern within A.I.D. and within AID/Rep has been with *program* performance indicators as distinguished from *project-level* indicators. Within the Mission, the aim is to provide concise measures that reflect overall accomplishments relative to Mission objectives. Thus, one set of indicators provides information on a particular activity carried out by more than one contractor. Health inputs and services, for example, provided by various contractors are reported consistently using three indicators that reflect overall efforts in the health sector.

The "program" concept usually implies long-term planning of 5 or more years. In dealing with stable regimes, this implies a program established and managed by the government rather than by donors, and the A.I.D. Mission designs its contribution to fit into the country's overall development program. In that context, proposed projects are evaluated on the basis of their potential economic and social impacts. Nonproject interventions, such as policy dialogue, are used to influence the government's program to increase the likelihood of these positive effects. In Afghanistan, however, AID/Rep has no counterpart government and cannot participate in normal policy dialogue. Thus, AID/Rep performance indicators will correspond more closely to project outcomes than would be the case for other Missions.

Quantification of Objectives and Targets

Goals should be stated as results, not as activities. Of the draft goals in AID/Rep's strategy statement, only three (restoration of economic livelihood for the rural populace, improved quality of and access to basic social services, and increased and broadened participation in the decision-making process) were stated as potentially quantifiable outcomes rather than as activities. However, assistance efforts are conducted under extremely difficult conditions. It would be a mistake to invest undue effort in developing quantified targets in all areas and expect to be able to measure regular progress toward their accomplishment. Relief efforts, for example, have been made in response to emergency appeals, and goals such as planning for reconstruction are largely open-ended. Still, indicators of both effort and achievement can be specified. The aim of PPIRS is not to establish targets for goal achievement at given points in time but to allow trends to be observed that show reasonable movement in the proper direction.

Measurement of Impact versus Accomplishments

Ideally, the impact of agricultural efforts would be measured in increased production and consumption, educational efforts in increased literacy or improved standardized scores, and health efforts in improved health statistics. In general, contractors' monitoring data used in PPIRS reflect only "impacts in the making," such as roads rehabilitated, students trained, and patients treated. These are good indicators of progress, but inadequate indicators of ultimate impact.

The two approaches to obtaining impact data are social indicators and special studies. Social indicators are reflections of general societal characteristics. Possible social indicators include changes in agricultural production, including poppy production, revealed by EarthSat data; standardized tests, when developed, to measure student achievement; and children's height-weight measures, to reflect general health status. At present, acquiring the information to determine indicators such as these is beyond AID/Rep's monitoring capabilities. Moreover, trends in social indicators reflect the combined impact of AID/Rep activities and all other impinging forces. In the Afghan situation, where powerful uncontrolled factors are likely to outweigh AID/Rep's efforts, trends are best interpreted as indicative of societal status rather than the impact of specific interventions.

A measurement of AID/Rep's program impacts can be developed by undertaking a series of special studies. An example of a study currently under way is research being performed by the narcotics awareness program on the effectiveness of its media campaigns. DCA will conduct a series of three to five special impact studies each year. These analyses will not be incorporated directly into the quarterly reports, but will complement them with less regular, but more intensive impact analysis.

Rapid Rural Appraisals

Rigorous survey procedures are not always necessary; there is also a role for rapid rural appraisal techniques. Such studies use an approach to gathering data that emphasizes low-cost and quick analysis of quantitative or qualitative data, or both. The most common data gathering techniques used in conducting these studies are discussions with key informants, group interviews, guided interviews, observation, informal surveys, and rapid, nonrandom sample surveys (AID/Washington 1987).[2] When a special study is proposed, the ultimate use of the results should be considered and the degree of rigor adjusted accordingly. Spot-checking project monitors is one example of a rapid rural reconnaissance task.

Geographical Codes

"A Provisional Gazetteer of Afghanistan" (Afghan Demographic Studies 1975) and "Afghanistan's Population Inside and Out" (Eighmy 1990) define and code 325 minor civil divisions (MCDs), which have become widely recognized as meaningful local-level geographical units. MCDs follow *woleswali* administrative boundaries, but sometimes indicate important *alaqadari* as separate units. PPIRS uses the MCD codes, which are already widely used by AID/Rep contractors in their own monitoring programs. The population estimates available for MCDs lend them added significance.

No attempt will be made to report data by village. "Villages" are little more than particular localities, often referred to by various names. In their data submissions to DCA, however, contractors are asked to input village names whenever possible, for two reasons. DCA has, as described, the additional responsibility of providing external monitoring of project activities. Village names will help DCA's monitoring teams to locate project sites. In addition, knowing the village names permits checking whether data have been assigned to the proper MCD.

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[2]See "Guidelines for Data Collection, Monitoring, and Evaluation Plans for A.I.D.-Assisted Projects," A.I.D.

Chapter 3

ALTERNATIVE SYSTEM APPROACHES

Performance indicator systems can range from the simple to the complex. A "minimum" system would aim solely at fulfilling AID/W's reporting requirements. Mission management could include additional information for its own use, or even more detailed data to serve project officers. A range of alternatives is considered below.

Reporting to AID/Washington

AID/W seeks only a few basic indicators, which can be qualitative as well as quantitative. The Asia Bureau is attempting to be flexible within the overall PRISM framework. Their process is designed to inform budget judgments rather than determine them mechanically.

Until now, AID/Rep's funding has largely been managed directly by Congress. Thus, it has not been necessary for AID/Rep to participate in AID/W's performance budgeting system. Joining the system is a step toward regularizing AID/Rep's Mission status.

On the basis of other Mission submissions, AID/Rep's report to Washington should consist of 15 to 20 pages with a list of 4 or 5 program objectives and about 2 indicators for each. "Indicators" in AID/W's terminology are broad statements such as "increased market-oriented activities" or "increased control of groups over natural resources." Each indicator is then represented by a series of about three "measures" or "events." Quantitative measures such as "percentage annual increase in cash sales of a sample of nonsubsistence farmers in X Zone" or "percentage annual increase in number of agro-enterprises receiving business loans from the agricultural development bank" provide means of comparing achievements (increases) against a previous baseline year.

Qualitative indicators are measured by critical "events." For example, the indicator "institutional changes expanding market access" could be measured by

the event "Chamber of Commerce establishes a technical information facility for agro-enterprise." Baseline and progress situations also may be reported qualitatively. For example, last year "preliminary discussions were held," and this year "the agro-enterprise subcommittee has been formed and a coordinator named."

This limited reporting requirement does not need a sophisticated computerized system. It emphasizes clarification of goals and objectives, identification of appropriate indicators, and collection of specific measures. Reporting of critical events should require little expenditure of effort. Aware of the excessive burden imposed by earlier performance reporting systems, AID/W has issued the guideline that total PRISM reporting costs should not exceed one Mission day.

Mission Management

The real impetus for AID/Rep's having a computerized management information system stems from its usefulness to Mission management and the relative ease with which it can be derived from existing contractor databases. Large AID/Rep contractors have complex databases for performance tracking and cost accounting. CARE, for example, not only analyzes costs by meter of road or irrigation ditch, but also budgets, tracks, and sets standards for component labor items such as cubic meters dug and tons of rocks shaped. The best of this type of system permit "what if" analysis of alternatives.

An overall computerized performance indicators system at the program level will facilitate Mission management consideration of alternatives. It will organize and integrate project performance information, facilitating a broader program-level perspective. This is especially important in accounting for the disparate efforts of nongovernmental organizations (NGO) that may be overshadowed by activities of the few large contractors. Thus, it will complete and sharpen performance reporting.

A Mission performance indicators database can be constructed relatively simply from the large databases already maintained by contractors with major AID/Rep contracts. Mission management's interest is limited to a few major indicators that can be extracted electronically from contractor files. Other contractors, such as some NGOs, may have to enter data manually, but their data entry requirements will be relatively short and simple.

One major variable of such a computerized Mission management information system is its comprehensiveness. Only a small system is needed to cover major performance indicators. However, when data can be converted electronically, little additional effort is required to include all contractor activities. If a comprehensive financial report is desired, allocating all resources by objective, as in traditional planning, programming, and budgeting, then all activities on which

funds were expended must be included. On the other hand, analysis can be simplified and the valuable time of Mission managers conserved if reports are limited to the few required highlights.

In the AID/Rep situation, the major requirement for such a system is flexibility. Prospects for changes within Afghanistan presage a series of redefinitions of goals, objectives, and indicators. The implication is that tracking of contractor inputs should be fairly comprehensive while reported outputs remain concretely limited to indicators required by Mission management.

Serving Project Officers

A more detailed performance management system would serve project officers as well as Mission management. Two aspects of the system are especially appropriate: monitoring and geographic distributions.

Current project monitoring is performed directly by contractors. It is, therefore, subject to the biases of monitors who might like to please their employers by reporting project successes. Given the relatively poor control over monitoring teams resulting from AID/Rep's cross-border position, it may be prudent to introduce additional independent AID/Rep monitoring teams. These monitoring reports would assist project officers in improving the quality of project monitoring.

Project officers will also benefit from the system's capability to illustrate assistance efforts geographically. Eventually, such project data can be presented in relation to data from other Mission projects and similar projects sponsored by other donors. Other specialized reports can be developed in response to project officers' needs, as the system matures.

Summary of System Characteristics

In summary, AID/Rep requires a system that is adaptable and flexible in its delineation and measurement of goals, purposes, and objectives but is fairly comprehensive in its measurement of inputs. Information on inputs will be handled electronically through data entry and conversion from contractors' existing databases. Output reports will be designed to present the indicators specifically needed by Mission management. The system will be developed step by step from the simplest system, serving the needs for reporting to AID/W, through more complex stages serving other Mission management and project officer needs. The system will focus on concrete outputs rather than ultimate impacts and will include provision for independent monitoring. Initially, indicators will be restricted to those already collected by contractors in order to limit data collection expenses. As the system develops, further data collection activities can be added.

Chapter 4

RECOMMENDED SYSTEM

System Overview

PPIRS is designed to assist AID/Rep in monitoring and reporting program performance, thereby improving program planning and implementation. It defines measures of progress toward objectives and goals, tracks geographic distribution of assistance, provides for performance analysis, and enables economic and social indicators reflecting impacts on beneficiaries to be monitored. PPIRS is being developed and operated by AID/Rep's DCA, under the direction of Mr. Roger Helms, who recently replaced Ms. Diana Stiles. As shown in Figure 1, system inputs will include Mission goals, objectives, and indicators; contractor activities; and contractor and DCA monitoring efforts. System outputs will be the results of performance, geographical and monitoring analyses, and special studies.

Roles and Responsibilities

Contractors will supply the input data to DCA for PPIRS, and DCA will produce quarterly reports for interpretation and use by Mission officers in Islamabad. Mission management will, in turn, use these analyses in reporting to AID/W.

Data Collection and Analysis Unit

The organization chart in Figure 2 shows the position of DCA within AID/Rep. The Unit reports directly to Ms. Diana Swain, the Project Development and Monitoring Officer in Islamabad, and coordinates administratively with Mr. H.B. Cushing, the Regional Affairs Officer in Peshawar. These officers, in turn, report to the Mission Director. Reports are also supplied to project officers. DCA must be careful to avoid direct feedback to contractors on information such as independent monitoring reports. Contractors must receive reports produced by DCA through their respective project officers.

Figure 1. Input and Output for the PPIRS

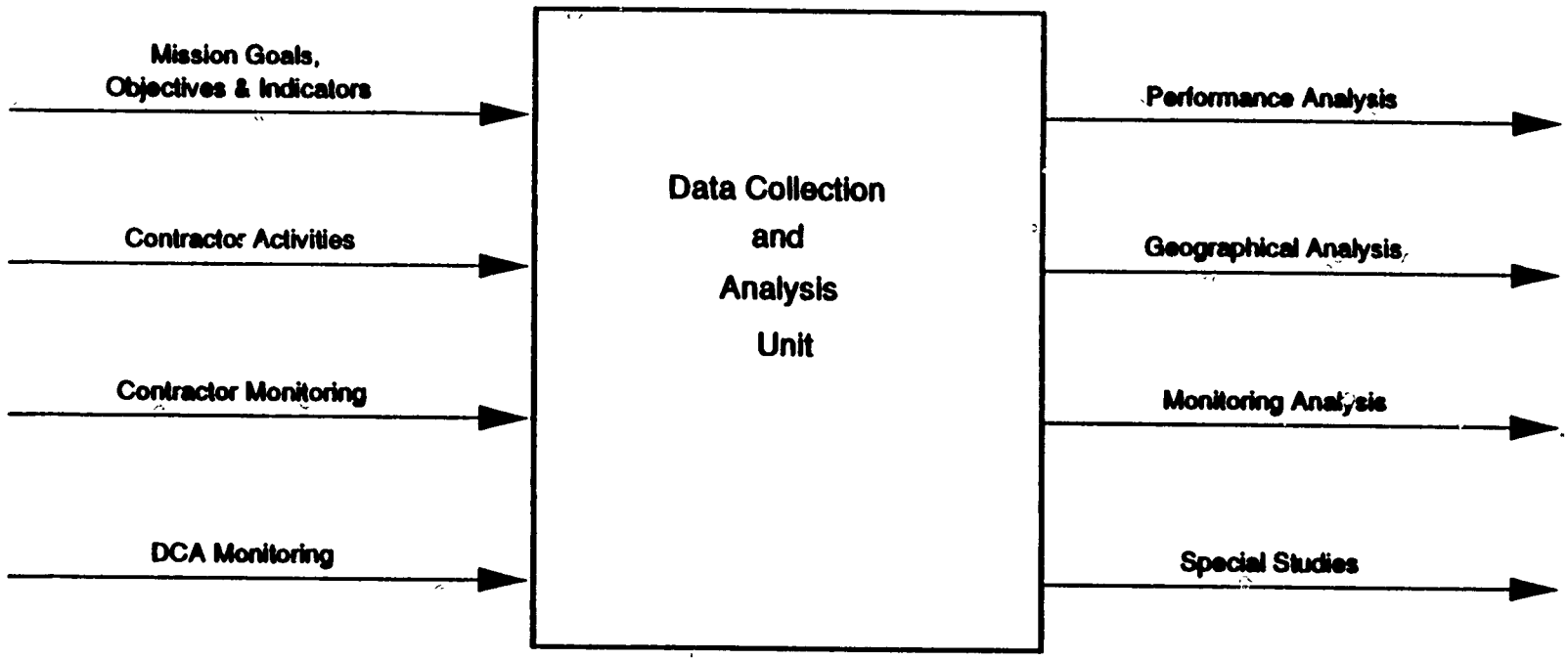
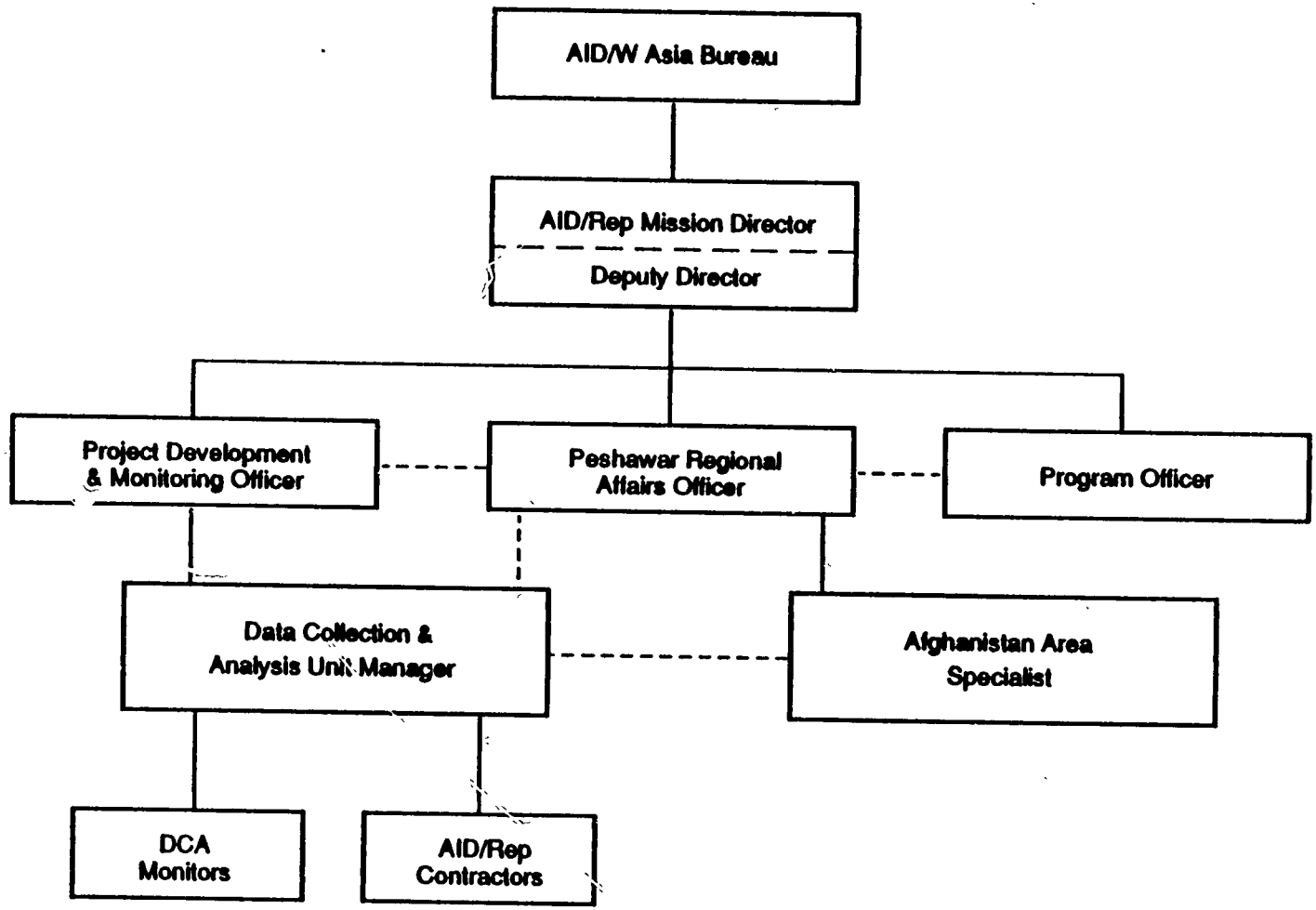


Figure 2. Organization of PPIRS



DCA is headed by the Data Collection and Management Specialist, Mr. Roger Helms. He, in turn, will be assisted by a Computer Database Specialist and a DCA monitoring team, which will include a third-country national to strengthen the objectivity of reporting. Ultimately, a second monitoring team is also envisioned. Cartographic plotting of the geographic distribution of assistance will be coordinated through the Area Specialist, Mr. Albert Nehoda.

Information will be provided by various sources. Contractors will submit quarterly performance data and monitoring data. The DCA monitoring team will also provide independent monitoring information. These data will be entered into the database system as quarterly performance data. In addition, DCA may, from time to time, receive changes in objectives, goals, and indicators from Mission management. These will be entered as revisions in the indicators' definition database.

DCA will produce three reports quarterly: a performance indicators analysis, a geographical summary of assistance, and a monitoring report. A financial report was considered but was not included in the initial system. Such a report would require comprehensive accounting for all expenditures rather than tracking of selected indicators. A financial report may be added at a later date if desired. In addition, DCA may conduct special studies after the quarterly reporting system is in place.

Contractors

Contractors are responsible for delivering a diskette with their database information to DCA each quarter. Contractors with sophisticated computer systems will develop conversion programs. Thereafter, quarterly reporting will involve only running the conversion program. Contractors with limited computer expertise will type their performance data each quarter. The database includes an entry for contractors' monitoring of results. In addition, DCA requests a copy of the written monitoring report, which traditionally has been submitted to the project officer.

Mission Management

DCA reports are submitted to Mission management. Specifically, they first go to the project development officer, and through her to the Mission Director and Division Chiefs. When appropriate, reports are also directed to project officers. Mission management will use these reports in (1) allocating budgetary funds, (2) reviewing and revising programming for effectiveness and efficiency, and (3) reviewing the geographical coverage of Mission programs. Mission management may request additional specific tabulations as needed.

Data Collection

AID/Rep contractors will be the principal suppliers of data for the system. In addition, information from other organizations, such as the World Health Organization (WHO) and the Agency Coordinating Body for Afghan Relief (ACBAR), will be incorporated for the purpose of analyzing AID/Rep activities within overall international humanitarian assistance efforts. Depending on the sophistication of each contractor's management information system, appropriate mechanisms may be established for transferring data to DCA, using either data entry or data conversion programs.

The hallmark of the PPIRS computer system is a programwide database, using data submissions to DCA organized according to a universal set of activity codes. Each activity of contractors is coded. For example, *kariz* rehabilitation has a single code, regardless of the contractor responsible for the performance of this particular activity. Each coded activity, in turn, is associated with one or more coded performance indicators. In this case, *kariz* rehabilitation is linked to irrigation improvements, an indicator for the Mission's objective of helping to reconstruct Afghanistan's rural infrastructure.

AID/Rep contractors will report in this manner on all project activities, by quarter and by fiscal year to date. The system will allow analyses over time of input-output relationships, trends in activities, and progress toward goal achievement.

Monitoring

Currently, the only additional monitoring envisioned is that to be conducted by DCA. Initial monitoring will be limited to simple checks on the actual functioning of schools, clinics, and other programs. Limitations on monitor capabilities will preclude more ambitious initial programming. Over time, with additional training, more complex monitoring functions will be attempted. Additional monitoring responsibilities may also eventually be designated for contractors.

Computer Analysis

PPIRS will enable the DCA to produce three quarterly reports:

1. Geographical Summary of Assistance Distribution. Patterns of AID/Rep efforts and achievements by MCD, plotted together with characteristics of each MCD, such as population.

2. Performance Indicators Analysis. Indicators of effort and achievement related to each Mission objective. A particular effort may serve more than one objective. For example, Afghan participation in agricultural management training might be considered indicative of progress toward achieving objectives of leadership development,

agriculture training, and narcotics awareness. Because activities can count toward more than one Mission objective, the results of this analysis do not correspond to program office accounting data. This report emphasizes efforts and achievements measured in such units as square meters of land demined, kilometers of road rehabilitated, and person-weeks of training performed.

3. Monitoring Report. Each site will be reported as 0 = not monitored, -1 = not functioning, +1 = functioning, or +2 = functioning exceptionally well.

In addition, PPIRS will facilitate DCA's performance of the following:

- Special Impact Studies. An effective data collection, monitoring, and evaluation system should include a combination of methods for gathering both quantitative and qualitative data. While DCA's quarterly and year-to-date reports will portray trends in input-output levels and geographical patterns of assistance, measures of ultimate impacts on beneficiaries will require specially designed studies. DCA is expected to conduct three to five special impact studies per year, some based on rapid rural appraisal methodology and others of more elaborate design.

- Spot-Checking Projects' In-House Monitoring. DCA is charged with checking information collected by AID/Rep project monitors to verify findings that constitute input data for PPIRS. Because limited resources are available for DCA monitoring, only spot-checking of project activities is expected to be possible.

Chapter 5

TOWARD A HIERARCHY OF OBJECTIVES AND INDICATORS

The study team's original scope of work optimistically called for identifying and obtaining "written approval" for objectives and indicators to support the Mission's goals. Until now, however, the Mission continues to work on the revision of its program. Given the ongoing nature of these program changes, we offer some tentative objectives and indicators for the Mission's consideration.

Hierarchical Levels Defined

PPIRS is designed to relate specific contractor activities to broad Mission goals. This linkage involves a hierarchy of goals, objectives, indicators, performance measures, and activities, such as the following.

- Mission goals, usually specified in CDSS strategy statements, outline broad aims over several years. In line with AID/W's directive to "do a few things well," Missions are expected to focus on very few goals. Mission goals and long-term strategies provide the context for development of strategic objectives.

- Strategic objectives may be regarded as developmental changes pursued within the Mission's goal framework. Each objective can specify a target group, a target social process, and a desired developmental change. For example, "to expand farmers' access to markets" and "to increase the range of family planning services available to rural women" are well-stated strategic objectives. Tentatively, the Asia Bureau's PBB system anticipates that each Mission will specify four to six strategic objectives.

- Performance indicators describe the way in which progress toward strategic objectives will be tracked. Indicators can be either quantitative or qualitative. For example, "increased market-oriented activities" and "institutional changes broadening market availability"

are both indicators of expanded access to markets. An objective is usually gauged by two or three indicators. Performance-based budgeting (PBB) expects a total of 10 to 15 indicators from each Mission.

- Performance measures are numbers or events specifying performance indicators. Quantifiable indicators (e.g., increased market activities) can be measured with statistics such as "percentage annual increase in farmers' cash sales"; qualitative indicators (e.g., institutional changes broadening market availability) are measured by critical events or milestones such as "Chamber of Commerce establishes marketing information facility." Each indicator is usually reflected in two or three measures.

- Contractor activities are specific accomplishments with respect to programmed tasks. Because of the dearth of external data on the Afghan economy, PPIRS constructs performance measures by summarizing input-output information for component contractor activities. Thus, AID/Rep's performance measures reflect project performance more than they reflect impact.

Mission Goals in Transition

Because the AID/Rep program reflects both political developments within the highly fluid Afghan situation and funding changes, Mission goals and objectives have been in continual transition. At the time of the study team's visit, the most recent statement of Mission goals was the draft "Afghanistan Strategy Document" written in May 1991. It proposed mission goals for the next 5 years, organized into three phases: survival (cross-border relief), renewal (the interim period after political settlement), and reconstruction (after establishment of an Afghan administrative structure, when AID/Rep would move to Kabul). (See Figure 3.) The phases reflected anticipated shifts in program emphasis: (1) immediate survival and security, (2) intermediate institutional and infrastructural development, and (3) the foundations for long-term economic development.

Since the team's visit, the Mission has continued to revise and refine its statement of goals and objectives in accordance with its shift from cross-border relief to more conventional development assistance. A major accomplishment has been the decision that the primary focus of Mission activities during this transitional period will be on *human resources development*. Cross-border relief is being transferred to the United Nations or terminated.

Figure 3. Goal Statement Summary

SURVIVAL			
- Continued emergency relief for war-affected Afghans.	- Restoration of economic livelihood for rural populace.	- Improved quality of and access to basic social services.	- Increased and broadened participation in decision making process.
RENEWAL			
- Initiation of planning for reconstruction.	- Strengthening the rural economy.	- Consolidation and replication of measures to sustain basic social services in rural Afghanistan.	- Afghans supportive of broadbased economic and political participation to assume leadership positions in post war Afghanistan.
RECONSTRUCTION			
- Creation of conditions favorable for inflows and coordination of assistance from multilateral financial institutions and other donors.		- Adoption and implementation of policies which encourage reliance on markets and broadbased participation.	

Source: "Afghanistan Strategy Document," Draft May, 1991.

Tentative Objectives and Indicators

Mission goals and programs are evolving rapidly. Information about these developments received by the study team in Washington, D.C., is both limited and time-sensitive. Recognizing that the Mission will continue to develop its own strategic approaches over time, tentative objectives and indicators are offered for AID/Rep's consideration (Exhibit 1).

The study team believes that PPIRS should develop gradually on the basis of practical experience. It is suggested, therefore, that a preliminary set of performance measures, such as those suggested in Exhibit 1, be adopted temporarily, even though goals and objectives are expected to change. The measures will require revision, but they can still provide valuable learning experience. Because of the flexible design of the PDS system, updating will not normally require altering contractors' data submission procedures. Thus, performance indicators, focusing on human resource development, are proposed only for the transition period. The database system has been designed to permit easy conversion to new objectives and indicators. The computer stores specific contractor activities rather than composite indicators. The activities can be linked to new indicators simply by modifying the program's performance measure definition database.

The tentative objectives and indicators outlined in Exhibit 1 are discussed briefly in the following paragraphs. Six objectives are proposed, three for human resources development, and one each for rural infrastructure, public services, and narcotics awareness. The emphasis on human resources development is indicated by specifying separate objectives for technical, professional, and leadership training.

Two indicators are given for each objective. Technical human resource development is reflected in indicators for agricultural and infrastructure construction training. Professional development is indicated by training of teachers and health workers. Leadership development is signified by both participant training and DPI training for disadvantaged Afghans.

Rural infrastructure development is also reflected in two indicators—rehabilitation of irrigation systems and repair of rural roads. Similarly, support for Afghan public services is indicated by assistance for public schools on the one hand and public health services on the other. Finally, narcotics studies and awareness campaigns are included as an objective. Increased information and public awareness are its two indicators.

In addition to these six objectives, PDS will track performance measures of seven cross-cutting concerns. These are (1) female beneficiaries (for women in development [WID] analysis); (2) environmental management activities; (3) private sector development activities; (4) repatriation estimates; (5) project monitoring expenses; (6) facilities operated (schools, clinics, etc.); and (7) DPI groups assisted.

Exhibit 1. Tentative Objectives, Indicators, and Measures

Objective 1:
To increase the availability of technically-trained Afghan personnel.

Indicator 1
Training in agriculture.

Performance Measures
A1 Agricultural agents trained (trainees & person-wks) *DAI/ADT*
A2 Farmer training & demonstration (trainees & person-wks) *DAI/ADT*

Indicator 2
Training in rural infrastructure construction.

Performance Measures
B1 Construction training (trainees & person-wks) *CRTA*

Objective 2
To improve the professional capability of Afghan Public Service Workers.

Indicator 1
Professional training for Afghan primary school teachers.

Performance Measures
C1 Teacher training (trainees & person-wks) *UNO*

Indicator 2
Professional training for Afghan public health workers.

Performance Measures
D1 Health worker training (trainees & person-wks) *Health*

Objective 3
To increase and broaden the availability of Afghans with leadership capabilities.

Indicator 1
Training for Afghans in leadership positions.

Performance Measures
E1 Participant Training (trainees & person-months) *UNO*
E2 Local Management Training (trainees & person-weeks) *UNO*

Indicator 2
Leadership Training for disadvantaged Afghans.

Performance Measures
F1 DPI Training (trainees & person-weeks) *AF*
F2 Adult Literacy Training (trainees & person-weeks) *UNO*

Objective 4
Rehabilitation of Afghan rural infrastructure.

Indicator 1
Rehabilitation of water and soil management systems

Performance Measures
G1 Water and soil management systems development (m.) *Econ*

(continued)

Exhibit 1 (continued)

Indicator 2
Rehabilitation of rural roads

Performance Measures
H1 Rural roads constructed or improved (km.) *CCSC, Econ2*
H2 Roads demined (sq. m., number of mines) *Ronco*

Objective 5
To improve provision of public services within Afghanistan.

Indicator 1
Number and quality of Afghan primary schools supported.

Performance Measures
I1 Number of functioning primary schools supported *UNO*
I2 Percent of primary schools with more than six grades *UNO*
I3 Number of Textbooks delivered into Afghanistan *UNO*

Indicator 2
Number and quality of Afghan health facilities supported.

Performance Measures
J1 Number of functioning health care facilities *Health*
J2 Value of medical supplies/equipment provided (Rs) *Health*

Objective 6
To study narcotics production and consumption in Afghanistan and increase public awareness of its dangers.

Indicator 1
Increase in information available regarding narcotics production and consumption in Afghanistan

Performance Measures
K1 Narcotics production and consumption studies (no., Rs, & MCDs) *ANRAP*

Indicator 2
Increased public awareness in Afghanistan of the dangers of narcotics usage, production and distribution.

Performance Measures
L1 Group-based Narcotics Awareness Campaigns (no., Rs & MCDs) *ANRAP*
L2 Mass Media Narcotics Awareness Campaigns (no., Rs, & MCDs) *ANRAP*

Cross-cutting Concerns

M1 Female beneficiaries
M2 Environmental management activities
M3 Private sector development activities
M4 Repatriation estimates
M5 Project monitoring expenses
M6 Facilities operated (Schools, clinics etc.)
M7 DPI Groups assisted (no. & Rs) *AF*

Other Performance Measures

N1 World Food Program Emergency Relief (MT) *WFP*
O2 Program Development studies (no. & Rs) *Studies*

World Food Program emergency relief, reported in metric tons, can also be recorded in PDS. Although AID/Rep is transferring its relief efforts to the World Food Program (WFP), Mission management may want to continue tracking these efforts.

Program development studies can also be included as a performance measure. These studies are a fixed component of Mission activities that management may want to monitor.

Impact indicators are not currently feasible within Afghanistan, given the paucity of reliable statistics. In the future, they may be obtained using a combination of methods: rapid rural appraisal techniques, more elaborate special impact studies, and satellite imagery analysis. Regarding the last method, the Geographical Information System (GIS), maintained by Development Alternatives, Inc. and EarthSat, offers the potential for providing countrywide time-series data on variables such as agricultural production and yields, improvements in irrigation infrastructure, and road improvements. Given the rough state of information available, however, the PPIRS implementation plan logically places priority on developing an effective system for reporting and analyzing performance indicators. When the GIS system is functioning, attention can be turned to measuring impact indicators.

Suggested Performance Measures

Only primary performance measures requiring specification of units of measurement are shown in Exhibit 1. PDS supplies a basic set of common performance measures based on its standardized input format (see Figure 4). These measures include estimated number of beneficiaries by salary status and gender; level of AID/Rep contribution; and transportation costs. The database also includes monitoring status; location of each activity; and beginning and ending dates, which can be used for selecting items. Basic counts such as number of clinics and schools are usually reflected directly in the number of entries.

In addition, each screen includes one quantitative performance measure with uniquely defined units. These may vary from such units as "person-hours of training" to "square meters demined" or "kilometers repaired." From these basic data, performance measures can be computed, varying from global sums such as total AID/Rep-funded teachers' salaries to specific measures such as the percentage of clinic patients in a particular district who are female.

Mission managers can compare performance indicators with program targets and evaluate efficiency with the ratio of AID/Rep contributions to these measures of accomplishment. Managers can also compare PDS performance measures with program office financial data. However, care must be exercised to avoid drawing overly simplified conclusions given the highly varied and unpredictable circumstances under which different contractors are working.

Figure 4. Data Input Screen

Province	11 < Badakshan	Activity for Q1 1991
District	1107 < Baharak	Last updated 08/12/91
Village	001 <	
Activity level A	5 < Health	
Activity level B	2 < Clinical care facility support	
Activity level C	2 < Basic health center (clinic)	
Activity level D	01 < Field salaries	
Contractor	11 < Freedom Medicine	
Sequence	01	

1	number of facilities		
USAID contribution	Rs. 168,500	Male Afghan salaried beneficiaries	3
Transportation	0	Female Afghan salaried beneficiaries	2
		Non-Afghan salaried beneficiaries	0
		Unsalaried Male beneficiaries	1243
		Unsalaried Female beneficiaries	581
Activity start	06/05/89		
Activity end	__/__/__	Intermediary	MOPH
Status 1, verified	05/03/91	Reference No.	112

Construction of a bridge, for example, represents an investment of time and energy that might not be reflected in the encompassing indicator of kilometers of road rehabilitated. Furthermore, circumstances must be examined carefully before conclusions are drawn about project accomplishments. Project delays, for example, might be due to conditions entirely beyond the control of project management, such as the failure of necessary inputs to arrive because of roads closed by weather or fighting.

Chapter 6

PROPOSED COMPUTERIZED DATABASE

Overview

The PPIRS database program links Mission goals, objectives, and indicators with contractor activities to produce performance reports, as diagrammed in Figure 1. Because goals and objectives may vary by phase over time, the computer system has been designed to record and store specific contractor activities. These activities are then linked to higher-order indicators. As the AID/Rep program evolves, new linkages can be established, and previous activity data can be re-interpreted in terms of the new goals for time-series analysis.

The database system central to PPIRS is the Performance Database System (PDS). It derives largely from Ron Barney's "A Computer System for AID/Rep Performance Indicators." The system he developed, written in dBASE III Plus and compiled in Clipper, was designed to organize and standardize the collection and reporting of baseline data required for quantitative monitoring of AID/Rep program performance indicators. Five broadly stated Mission objectives were specified. A total of 14 indicators mainly measured program inputs. One of Barney's principal accomplishments was the creation of a system of codes by which AID/Rep's inputs and activities could be standardized programwide. PPIRS uses this coding scheme, in which there are four levels of classification (see Appendix B). A major task performed by the study team was modification of input and activity categories, based on discussions with contractors and grantees regarding the applicability and accuracy of those listed.

PPIRS provides a common format for DCA's data collection and reporting, as described in Appendix C. Information will be collected into the system by executing a program to copy data from diskettes submitted by AID/Rep contractors and grantees. These data will be reported using computer programs designed to print information for AID/Rep program reporting and to assist DCA in its monitoring activities. In addition to the information system installed at DCA,

each contractor will use a data entry or data conversion system for data submission (see Appendixes D and E).

An integral aspect of PPIRS is its geographic coding scheme. As Barney proposed, province and MCD identification codes are the same as those that Thomas Eighmy developed for "A Provisional Gazetteer of Afghanistan." In addition, village codes produced at the Afghanistan Vaccination/Immunisation Centre (AVICEN) and United Nations Development Program (UNDP) under the direction of Roger Helms are incorporated into the system. They are intended only to provide a check for DCA's monitoring activities, since findings will be reported at MCD and province levels.

To minimize data gathering and processing costs of contractors, PPIRS was designed to conform with other information systems used in tracking Afghan humanitarian assistance. One of the more comprehensive data systems is maintained by ACBAR. More than 80 NGOs, including most AID/Rep contractors, submit data to ACBAR, which lists information in three reports, sorted by location, sector, and agency, respectively. The "Gazetteer" location codes are used in both the ACBAR database and PPIRS, allowing cross-reference between the two systems. Although PPIRS is more limited in scope, being concerned only with the AID/Rep program, it will provide greater detail on projects (for example, estimated numbers of beneficiaries). For the health sector, WHO's Health Information System (HIS) contains data on health facilities, health problems and patterns, and health manpower in Afghanistan. Again, whereas WHO includes non-A.I.D.-funded health projects in its database, PPIRS and HIS are similar in geographical coding and types of data collected and, thus, can be cross-referenced.

The PPIRS database program is quite flexible because contractors input specific activities rather than aggregated performance indicators. These activities are allocated to various performance measures, indicators, objectives, and goals by a linking matrix stored inside the computer. Thus, when goals and objectives are altered, previous activities can be reallocated to provide time-series data for earlier performance related to newly defined goals.

Two approaches to providing data entry are available to contractors, and each approach is designed to fit the contractors' data processing capacity. The first approach is a data entry system for contractors who want to type their data into the AID/Rep format. The second approach is a conversion program to transfer data from a contractor's current format to the AID/Rep format.

The main menu of the PDS database program is shown in Figure 5. It has four choices:

- Enter/modify/delete records
- Set defaults
- Print reports
- Perform utilities

Figure 5. Computer Menus

A. Database Program Main Menu

AID/Rep DCA
Performance Data System

1 — Enter/Modify/Delete Records
2 — Set Defaults
3 — Print Reports
4 — Perform Utilities

Selection: 0

B. Data Conversion Program Menu

AID/Rep DCA
Performance Data Conversion System

1 — Convert Data
2 — Edit/Add Input/Activity Codes
3 — Print Reports
4 — Utilities

Selection: 0

Entering Data

Contractors who want a standard data entry format for typing performance data are provided a data entry system, REP, for their computer (Figure 4). The system enables AID/Rep data to be entered, edited, and deleted before the prepared data are sent to the AID/Rep DCA office. It permits entering

- Location
- Activity
- Contractor
- Performance indicator and units of measure
- AID/Rep contribution (Rs)
- Transportation costs (Rs)
- Activity start date
- Activity end date
- Monitoring status and date verified
- Beneficiaries (broken down by Afghan or other, male or female, and salaried or unsalaried)
- Intermediary

To assist contractors in checking data entry and referencing information sent to DCA, a report program selection ("List data by location") is provided to print data by MCD. Detailed instructions for entering data are given in Appendix D.

Converting Data

For contractors that have sophisticated data processing capabilities, a data conversion program, REPCONV, is provided to convert recorded project information into the DCA data format (see Figure 5). The conversion system includes a data modification screen to permit manual adjustment of data that might not convert properly with a program. The same report provided with the data entry system is contained in the data conversion system. Appendixes D and E provide additional information on using REPCONV.

Producing Reports

Two standard quarterly report formats are provided in the basic PDS program: Performance Measures by Indicator and Objective, and Geographical Distribution of Assistance. The first summarizes measurements on the indicators of a particular objective, and the second shows AID/Rep assistance by MCD and province. Additional report formats that could be produced include (1) linkages of performance indicators with external district data (e.g., schools per capita or clinics per capita), (2) management performance indicators (e.g., kilometers of roads produced per rupee), and (3) analysis of cross-cutting concern indicators (e.g., percentage of beneficiaries who are female, Afghan, etc.).

Performance Measures

The format for the performance measures report is presented in Table 1. It shows the (1) performance measure, (2) its value (amount) and unit, (3) USAID contribution (Rs), (4) transportation costs, and (5) various categories of beneficiaries. In the performance indicators report, a single activity may be counted several times as contributing to different performance measures. Thus, for example, a training session might count simultaneously for leadership development and DPI groups assisted. The example shows totals for a particular objective. Equivalent tables could be produced, for particular provinces or districts.

Geographical Distribution of Assistance

The output format for the geographical distribution report is indicated in Table 2. Total AID/Rep assistance across all programs is shown for each MCD. The table displays (1) USAID contribution, (2) transportation costs, and (3) beneficiaries. DCA can also present this information as plotted maps. Equivalent tables can be produced, filtered for any particular program such as agriculture, health, or education.

In both output formats shown (Tables 1 and 2), the category "salaried non-Afghan beneficiaries" is included to indicate to Mission management relative numbers of contractor employees directly benefiting from the AID/Rep program, such as Pakistani citizens in Peshawar and Quetta.

Updating Performance Measures

Recognizing that AID/Rep objectives and indicators will change over time, the computer program has been designed to be flexible. Performance measures are defined in terms of contractor activities in a database that can be easily modified. DCA's computer specialist selects "Utilities" from the Main Menu and then "Modify Performance Measures" from the Utilities Menu. Detailed procedures are discussed in Appendix F, and the definitional database is shown in Appendix B.

Table 1. Output Format for Program Performance Measures by Indicator and Objective

Q1 1991

III. Objective: To improve the provision of public services within Afghanistan.

I. Indicator: Number and quality of Afghan primary schools supported.

Measures:
- I1 Functioning primary schools
- I2 Schools with more than six grades
- I3 Textbooks delivered to Afghanistan

					Beneficiaries						
					Salaried					Unsalaried	
Indicator	Amount	Unit of Measurement	Dollars USAID Contribution	Dollars Transportation Cost	Afghan Males	Afghan Females	Non-Afghan	Total Salaried	Afghan Percentage of Total	Male	Female
I1	382	facilities	432,185	32,120	413	31	3	447	99	66,760	5,810
I2	295	facilities	242,500	25,063	307	22	2	331	99	42,150	3,480
I3	3,122	books	392,160	105,640	32	18	1	51	98	33,165	2,802
Total			1,066,845	162,823	752	71	6	829	99	142,075	12,092

Table 2. Output Format for Geographical Distribution of Total AID/Rep Assistance by Province and Minor Civil Division

Q1 1991	Dollars USAID Contribution	Dollars Transportation Cost	Beneficiaries: Salaried: Afghan Males	Afghan Females	Non-Afghan	Total Salaried	Afghan Percentage of Total	Unsalaried: Male	Female
Badakhshan									
Badakhshan	3,600	600	10	0	0	10	100	1,185	260
Baharak	10,500	2,500	12	1	0	13	100	4,516	1,125
Darwaz	18,000	4,800	21	2	2	25	92	10,010	1,963
Eshkashem	8,700	1,000	15	0	0	15	100	5,662	1,050
Jurm	11,600	1,800	19	2	2	23	91	6,950	1,398
Keranw-monjan	5,900	900	6	0	0	6	100	2,080	585
Keshm	2,800	700	0	0	0	0	—	758	181
Khwahan	11,900	3,300	16	3	1	20	95	2,983	562
Ragh	15,200	3,800	11	1	1	13	92	3,664	787
Province Total	88,200	19,400	110	9	6	125	95	37,808	7,911

Chapter 7

RECOMMENDED IMPLEMENTATION PLAN

Proposed Schedule

The PPIRS should be developed gradually, starting with a "minimum" system to support Mission reporting to AID/W and basic Mission management. As experience is gained, this system should be made more specific and elaborate to serve additional functions.

Tasks Completed

The study team has accomplished the following major tasks: (1) specifying proposed objectives and indicators, (2) arranging with AID/Rep contractors for submission to DCA of quarterly and year-to-date performance data, (3) revising the PDS database program in accordance with contractors' activities and AID/Rep's goals, (4) revising a data entry program for contractors typing in data, (5) providing specifications for and initiating programming of data conversion programs for contractors developing REPCONV programs, and (6) documenting PDS.

Tasks Remaining

Tasks remaining for the system's implementation are presented in Table 3. As indicated by this delivery order's title, the first step will be preparation of a set of baseline data against which change can be measured. During the study team's stay in Pakistan, contractors were generally not prepared to submit baseline data, nor was the system itself ready to receive submissions. Baseline data collection and processing will be undertaken by DCA using the format and procedures designed by the study team.

Inputting of baseline data is scheduled to begin in January 1992. This task is to be supervised by DCA and involves data submission by the various AID/Rep

Table 3. Implementation Plan

Date	Task	Performed by
Setup Activities		
January 1992	Supervise baseline and first quarterly data entry	DCA
January 1992	Enter baseline and first quarterly data	Contractors
April 1992	Review and revise PPIRS	Tech. Assis.
April 1992	Revise computer program	Tech. Assis.
April 1992	Program additional reports	Tech. Assis.
April 1992	Program trend analysis	Tech. Assis.
July 1992	Review and revise PPIRS	Tech. Assis.
July 1992	Design special studies	Tech. Assis.
Recurrent Activities		
	Enter quarterly data	Contractors
	Analyze quarterly data	DCA
	Interpret quarterly data	AID/Rep

contractors. Thereafter, data will be regularly collected and processed by DCA on a quarterly basis, and interpreted by AID/Rep management (see recurrent activities in Table 3). The first quarterly data will also be entered in January 1992.

Because DCA had not yet hired a database programmer during the study team's period of field work, the DCA Director, Roger Helms, was provided with overall instruction in the use of the computerized system. Mr. Helms will, in turn, train the database programmer.

The need for additional technical assistance is foreseen as experience is gained with the system. Indicators will be refined, additional reports will be required, and additional programs will be needed for trend analysis comparing quarterly data. Programming will also be required to integrate contextual data such as the MARIS database of market prices and population estimates from the "Gazetteer." In addition, adjustments to the original programs will probably be made. Technical assistance missions to advise on these activities might be considered after 6 months and 1 year.

Eventually, further development of PPIRS will include the design of special reports and linkages with DAI's GIS satellite data. Such developments are not expected to occur before the system's second year of operation.

Summary of Costs

The data-collecting and reporting demands that PPIRS will place on contractors are not without cost; there are both initial setup outlays and regular

quarterly expenses. These are real incremental costs, whether explicitly borne by AID/Rep or relegated to contractor overhead. In the current proposal, every effort has been made to minimize these costs by relating indicators to data already being collected. If future elaborations require additional data collection, costs could increase significantly.

Two cases can be distinguished according to the method of data submission: contractors who enter data manually compared with those who use data conversion programs. Exhibit 2 shows that 7 of the 15 major contractors plan to input data manually, while 8 will use data conversion programs.

Exhibit 2. Contractors Classified by Method of Data Submission to DCA

Contractors Entering Data Quarterly

Afghanistan Narcotics Research and Awareness Program
The Asia Foundation
CARE International
Construction Control Services Corporation
Female Education Program, IRC
International Medical Corps
International Organization for Migration

Contractors Using a Conversion Program

Development Alternatives, Inc[a]
Management Sciences for Health
Mercy Corps International
Ronco Consulting Corporation
Rural Assistance Program, IRC
University of Nebraska at Omaha
Volunteers in Technical Assistance
World Food Program[b]

[a]DAI's PSA and ADT components will submit quarterly performance data, but PPA will provide spreadsheet data from MARIS and eventually GIS data, which will be treated specially.

[b]Although not technically an AID/Rep contractor, WFP will handle food aid and provide quarterly reports.

Manual Data Entry

Manual data entry will be performed using DCA's REP program because it is the simplest approach and requires little computer expertise on the part of the contractor. REP users have limited initial setup costs but higher quarterly expenditures.

Setup costs for contractors using manual data entry are limited to contractor personnel time expended in discussions with and training by DCA and technical assistance personnel. These costs are estimated at US$150 direct salaries plus 110 percent overhead (US$155), a total of US$315.

Quarterly expenses for contractors entering data manually are estimated at 2 days for a computer operator receiving Rs 10,000 per month (US$42), plus US$20 for management supervision, plus 110 percent overhead (US$68), for a total of $130.

Computerized Data Conversion

Contractors with well-developed databases and skilled system managers will prefer to use a conversion program (REPCONV). They must bear the initial cost of developing the program but thereafter will incur smaller quarterly costs. PPIRS essentially taps into the contractors' ongoing monitoring programs.

In addition to the same US$315 basic setup cost for discussion and training incurred for manual data entry, contractors who use data conversion will expend an estimated US$525 for computer program development. This cost is based on a computer programmer's salary of Rs 20,000 per month for 6 days, plus 110 percent overhead. Thus, total setup cost is estimated at US$840.

Quarterly expenditures using REPCONV are estimated at US$43. This figure is based on a computer programmer's salary of Rs 10,000 per month for one half-day, plus $10 for management supervision, plus 110 percent overhead. Using these estimates, REPCONV users will save US$87 per quarter compared with the manual data entry method.

Contractor Capability and Concurrence

Exhibit 2 summarizes verbal agreements reached with major AID/Rep contractors on how quarterly data will be submitted to DCA—by manual data entry or by conversion program. This section elaborates on contractor capabilities and concurrence as appraised by the study team.

Contractors Entering Data Quarterly

Manual data entry requires little computer expertise but higher quarterly expenditure. In general, the study team obtained full cooperation from contractors who planned to use manual data entry. One organization, however, questioned whether it had the staff and funding to perform the data entry. Since the computer program remains under revision, final program installation and data-entry training were left to DCA.

Afghanistan Narcotics Research and Awareness Program. The Afghanistan Narcotics Research and Awareness Program (ANRAP) has computer expertise in budgeting and research analysis that could be applied to an internal evaluation database. At the time of the study team's visit, however, ANRAP was undergoing a fundamental reorientation to focus on awareness and research activities rather than crop substitution. In view of the transitory nature of ANRAP's current objectives and indicators, the study team suggested manual data entry rather than investment in a data conversion program. The data entry program was installed on ANRAP's computer, and their computer specialist was trained in data entry procedures.

The Asia Foundation. The Asia Foundation is the primary contractor dealing with the Democratic Pluralism Initiative. Their program is small, and record keeping is performed in spreadsheets (Lotus 1-2-3) rather than in databases. The director agreed to provide data manually each quarter and did not think that this would be a major burden. The team described the data entry program but did not install it or provide training. Time and cost expenditures for quarterly data entry should be tested empirically for such organizations.

CARE International. CARE does not have a management information database system but plans to develop one based on that of DCA. The director is an experienced database programmer who readily understood the DCA program and its merits. He has developed an outline for a much more intricate database system detailing time and cost estimates for specific tasks such as quarrying and shaping rocks. After such an in-house MIS system is in place, CARE could shift from manual data entry to a conversion program. The director was pleased to receive from the study team the Gazetteer program listing alternative village names.

Construction Control Services Corporation. The Construction Control Services Corporation (CCSC) is the subcontractor under ACLU responsible for most road and infrastructure construction. CCSC has an extensive computer system and considerable expertise. Their record-keeping system, however, is in Lotus 1-2-3 instead of dBASE. CCSC has the in-house capability to enter data quarterly into the DCA system and did not foresee any problems.

Female Education Program, IRC. The Female Education Program (FEP) under the International Rescue Committee (IRC) is a small program with little computer expertise. At the time of the study team's visit, new management was assuming control of FEP. FEP did not have the expertise to develop a conversion program, and the director expressed reservations about whether FEP had the human resources and budget to input data quarterly. Quarterly time and cost requirements should be monitored empirically, and consideration should be given to whether supplementary funding is required.

International Medical Corps. The International Medical Corps (IMC) supplies medical inputs for Afghan clinics. IMC did not have the computer expertise to produce a conversion program. At the time of the study team's visit IMC had just lost its computer specialist and had not yet found a replacement. However, the

corps anticipated finding a replacement and supplying data quarterly with no difficulties. IMC has one notable resource: the previous computer operator has entered information from a large number of "Green Books" (clinic treatment records). These data remain unanalyzed, and IMC has neither the funds nor the expertise to perform the analysis.

International Organization for Migration. The International Organization for Migration (IOM) handles the medical evacuation of war-wounded patients. IOM has a computerized record-keeping system in spreadsheets that provides the requested data on the number of patients served. These data could be easily entered quarterly into the DCA system. However, the medical evacuation program is being discontinued, so this element of data collection may no longer be necessary.

Contractors Using a Conversion Program

Major AID/Rep contractors generally have well-developed management information systems (MIS) from which quarterly reports can be extracted automatically with a conversion program. In addition, they generally have the expertise to develop such a program.

Development Alternatives, Incorporated. Development Alternatives, Incorporated (DAI) is a prime contractor within the Agricultural Sector Support Project (ASSP). DAI has an elaborate computer system and considerable computer expertise. The firm's program consists of three components: Private-Sector Agribusiness (PSA), Agricultural Development and Training (ADT), and Program Planning and Analysis (PPA). At the time of the study team's visit, the director was absent and the acting director declined to meet with the team. The study team nevertheless achieved good collaboration from several DAI employees representing the various program components.

Agricultural price information was reviewed in a meeting with two agricultural economists from DAI's MARIS survey. The study team concluded that these market prices should *not* be included as regular measures in DCA's PDS database. Instead, MARIS price data can, at a later date, be added in a separate file to be used, like population data from the Gazetteer, as contextual data for detailed analyses. DAI already stores their data using Gazetteer geographical codes. Thus, DCA's price database can be designed to directly match DAI's format so that no conversion will be needed.

The study team also met with a geographer from DAI's satellite-based Geographical Information System, who indicated that potentially satellite data could provide all the possible impact indicators considered by the team, including area irrigated, estimated wheat yields, kilometers of roads in good and bad repair, and area planted to poppy. The team noted, however, that costs for such data were extremely high. Also, the team found the geographer's responses quite optimistic in comparison with reports from others involved in this operation. If the Mission proceeds with satellite monitoring for other reasons, impact measures

could ultimately be added to the DCA database system for a relatively small additional cost.

Finally, the study team met with DAI's new director of information management, along with their computer programmer. The team reviewed the envisioned performance measures and data collection procedures. The group agreed that DAI could probably best provide quarterly data through a conversion program, and no obstacles were foreseen.

Representatives of DAI's ADT component were not interviewed independently. It is assumed that DAI will have no difficulty in providing the "person-weeks" of training that is available for all other training programs. Training for agricultural agents and farmers will be reported separately. Since the study team's visit, the AID/Rep Mission has decided to terminate DAI's PSA component and has imposed a year-end deadline for the PPA component to demonstrate its cost-effectiveness. Thus, the ADT component has become the core of DAI's program.

Management Sciences for Health. Very good cooperation and assistance were obtained from Management Sciences for Health (MSH). MSH has a well-designed computerized MIS. In three meetings, MSH helped the study team focus on measures that are readily obtainable. The organization agreed to produce a conversion program to derive DCA's quarterly indicators directly from their system. The computer program will be written at MSH's home office in Boston.

MSH respondents noted that detailed analyses such as percentage of patients who are women and percentage who are children must be derived from data in the "Green Books" that list patients and treatments. (The International Medical Corps has a large number of these books computerized but cannot analyze them.) Although the accuracy of Green Book data has been questioned, MSH respondents thought that such analysis could be useful if performed with large numbers and interpreted with a ±10 percent margin of error. The respondents noted that questionable Green Books are usually readily identifiable because they are clean.

Mercy Corps International. The study team was unable to meet with representatives of Mercy Corps International because their headquarters is in Quetta rather than Peshawar. It is hoped that they will be able to match the rather basic measures agreed on with MSH.

Ronco Consulting Corporation. Ronco has an advanced computerized database system and advanced computer programming expertise. The study team received excellent cooperation. Ronco's programmer had begun writing a conversion program to supply the requested quarterly data, but the effort was abandoned when it became evident that cross-border deliveries would be terminated.

Rural Assistance Program, IRC. Even before the arrival of the study team, the Rural Assistance Program (RAP) had begun adapting DCA's activity database in accordance with its own needs. When the adaptation is completed, RAP will be

using DCA's system for their own internal MIS. Thus, quarterly measures will be submitted to DCA on diskette through a relatively simple conversion program. Although RAP has considerable internal computer expertise, its computer personnel have other commitments, and RAP had to subcontract adaptation of the DCA system into its own MIS. The MIS was almost completed at the time of the study team's visit.

University of Nebraska at Omaha. Two meetings with the directors of the University of Nebraska (UNO) educational program resulted in agreement on the use of the relatively simple indicators proposed (primary schools and textbooks delivered). Although seventh, eighth, and ninth grades are being added, all schools are considered basically *primary* schools. Highest grade in each school (e.g., 4, 6, 7, 8, 9) can be reported as the quantitative measure when each school is counted and provides a rough indicator of improvements in quality. Number of students and percentage of females (which is very low) can be roughly estimated, but more accurate or detailed data and conjectured impact measurement through extemporaneous reading tests depend on competent monitors. These activities should be postponed until either more educated or better trained monitors are available. UNO has both a computerized MIS and the necessary expertise to provide DCA with quarterly information on diskette through a conversion program. No difficulties were foreseen.

Volunteers in Technical Assistance. Volunteers in Technical Assistance (VITA) has an elaborate computerized MIS and extensive computer expertise. The team met with VITA twice and received full cooperation. VITA's computer programmer has met informally with Roger Helms at DCA, and it appears that the organization will have little difficulty in providing DCA with quarterly data on diskette through a conversion program.

World Food Program. The study team did not meet with representatives of the World Food Program but obtained a copy of their current monthly report to AID/Rep. The report is computerized and contains the measure desired for inclusion in the quarterly database (MT delivered). If the report were obtained on diskette rather than in printed form, it would be a simple matter to write a conversion program to extract the desired information and sum it over the quarter. Currently, only a total figure is proposed. WFP's report permits separating categories such as "Emergency Feeding/Feeding a Vulnerable Group/Food Aid for Low-income People," "Food for Work" and "Irrigation Rehabilitation."

Conclusion

The proposed PPIRS system will provide a valuable resource for AID/Rep Mission management program review and budget allocation as well as for reporting to AID/Washington and concrete project monitoring. The system remains formative, and AID/Rep should review the suggested indicators, revising them and adding qualitative "critical event" measures as appropriate.

Appendix A

SCOPE OF WORK

The contractor is expected to complete the requirements listed in tasks 1 through 9 below. Work will be carried out in accordance with the priorities identified in the Mission approved Work Plan, taking into account the level of effort provided in Article IV and the budgetary limit of $100,000 for this Delivery Order. Should it not be possible to complete a specific listed element of work because of either of these constraints, that work will be considered for inclusion in the subsequent phase of system development for which recommendations are to be provided in Task 8.

1. Prepare a strategic approach and Work Plan for the Baseline Development phase, including the following sub-tasks:

   1-a. Review the following documents:
   - Baseline Data in the context of the Cross-Border Humanitarian Assistance Program (May 1990);
   - A Computer System for AID/Rep Performance Indicators (November 1990); and
   - Draft Afghanistan Strategy Document (May 1991)

   1-b. Identify critical impact issues relevant to: (i) AID's renewed emphasis on demonstrating program impact on beneficiaries; and (ii) measuring program impact on beneficiaries; and (iii) measuring progress toward achievement of the Mission's goals and objectives.

   1-c. Prepare Work Plan.

   1-d. Meet with the Mission's Program Officer responsible for implementing the Nathan-Berger Afghanistan Studies Contract to review the Work Plan and to determine the individual sub-task priorities, particularly for tasks 3, 4, 5 and 6.

2. Gain written approval from the Project Officers, PD&M Officer and the Program Officer of objectives and indicators.

2-a. Identify on the basis of existing documents and Missions guidance, a full set of objectives in support of the Mission's goals. Formulate alternative statements of objectives as appropriate, and have these approved by the Mission.

2-b. Propose a set of candidate performance indicators for the objectives identified in sub-task 2-a. Suggest alternative performance indicators, as appropriate, and have these approved by the Mission.

2-c. Review ACBAR's Activity and Facility Codes, as for coordination purposes (elimination of duplication) equivalent activity, facility and geographic codes will be necessary. (Activity tracking and "spatial parameters" require uniform use of O/AID/Rep geographical codes, as used in the Population Estimates and as used by ACBAR and WHO. ACBAR has extended these by adding Pakistan codes.)

2-d. Confirm the data system report's specific data series required to quantify indicators designated in sub-task 2-b. Attention should be given to levels of geographic detail. Spatial reconciliation should be achieved first at the district (woleswali, alaqadari, markaz-i-wilayet) level, without major attempts to reconcile things at the village level.

3. Following Mission approval of the results of tasks 2, provide a framework for agreement on contractor responsibilities, incremental costs and other key implementation issues, including the following sub-tasks:

3-a. Since the coding of activities is the key to systems coordination and is the area that will require O/AID/Rep to provide support to contractors in changing their current coding schemes, write for the contractors simple translation programs from the existing contractors' grantees' coding schemes to the newly established coordinated codes.

3-b. Advise the O/AID/Rep on the front-end input systems which certain contractors may require in order to make their systems operational within the coordinated whole. (The data system report has an accompanying front-end already developed but it needs finishing touches before it can be made available.)

3-c. Develop global order-of-magnitude estimates of the one-time and recurrent costs of the envisioned system expected to be incurred in connection with the new performance budgeting activities to be carried out by (i) units of the O/AID/Rep; (ii) Mission contractors; and (iii) other organizations.

3-d. Prepare a document for Mission action setting forth the characteristics of a recommended performance budgeting system and any alternatives, if appropriate. In this context, clarify, across projects, the specific activities contained under "technical assistance/support"

and "program", as an analysis of monitoring costs, as well as implementation of the indicator system will depend on such clarity.

4. Define the spatial parameters of the Mission's performance budgeting system (see also 2-c, above):

   4-a. Review and gain confirmation on the reporting format for the location reports of delivery of Mission-funded goods and services.

5. Following Mission approval of the system, carry out selected implementing activities, including:

   5-a. Following Mission review and approval of the decision document provided in sub-task 3-d, arrange for the review of the activity codes set forth in "A Computer System for AID/Rep Performance Indicators" (November 1990) by organizations designated by the O/AID/Rep, and such other organizations (e.g. ACBAR, CMC, WHO) which provide informed advice.

   5-b. Review activity codes from the point of view of conceptual problems of scheme development.

   5-c. Finalize and obtain Mission concurrence on specification and coding of activities, with classifications sufficiently broad to ensure their applicability to future programs.

   5-d. Recommend formal procedures for initiating, reviewing and implementing changes to the activity codes once the system is in place.

   5-e. Revise user software as appropriate.

   5-f. Prepare a user manual for the final system.

   5-g. The team's computer specialist will work with the DC & A Unit's newly-hired Monitoring System Specialist, the person who will handle the daily issues arising from the system after the team has left.

6. Initiate follow-up activities and use of the final system:

   6-a. Distribute copies of the software and the user manual to contractors.

   6-b. Offer training and limited programming assistance to contractors wishing to integrate the system with their existing software or wishing to write programs to convert their existing data to that of the system.

6-c. Working with contractors, help translate data for a designated quarter to the new system.

6-d. Modify the user interface of the system on as-needed basis to make it easier to use.

7. Make recommendations for follow-on activities needed to measure program impact, including the prioritizing and institutionalization of social science research efforts concerning Afghanistan.

8. Recommend any other activities which should be considered for inclusion in the final phase of work.

9. Prepare a Draft Final Report setting forth the results of work carried out under Tasks 1 through 8 above.

Appendix B

ACTIVITY CODE REPORT

ABC D	Activity Description	Units	Performance Measures
1	Relief		
11	Commodities		
111	Food		
11101	Chickpea (dal chana, garbanzo)	metric tons	N1
11102	Vegetable oil	metric tons	N1
11103	Kidney bean (lubia)	metric tons	N1
11104	Salt	metric tons	N1
11105	Sugar	metric tons	N1
11106	Tea	metric tons	N1
11107	Wheat	metric tons	N1
11107	Combined Shipment (Bulk)	metric tons	N1
11108	Combined Shipment(Prepackaged)	metric tons	N1
112	Commodity substitutes		
11201	Cash for food	Rs.	N1
113	Operating costs		
11301	Field salaries	number of	N1
11302	Afghan Facilities	number of	M6
11303	Non-Afghan facilities	number of	M6
11304	Monitor salaries	number of	M5
114	Non-food Commodities		
11401	Medical Supplies	metric tons	-
11402	Other supplies	metric tons	-
12	Medical care		
121	Program		
12101	Medical evacuees	number of	-
2	Safety		
21	Mine clearance		
211	Dog deployment		
21101	Roads cleared	square meters	H2
21102	Fields cleared	square meters	H2
21103	Mines found	number of	H2
212	Operating costs		
21201	Field salaries	number of	H2
21202	Afghan facilities	number of	M6
21203	Non-Afghan facilities	number of	M6
21204	Monitors salaries	number of	M5
22	Human resource development		
221	Training		
22101	Mine detection dog handling	weeks	B1
222	Operating costs		
22201	Field salaries	number of	H2
22202	Afghan facilities	number of	M6
22203	Non-Afghan facilities	number of	M6
22204	Monitors salaries	number of	M5
3	Infrastructure		
31	Structures		
311	Erosion control		
31101	Gabion	number of	G1M2
31102	Levee	number of	G1M2
31103	Terrace	square meters	G1M2

ABC D	Activity Description	Units	Performance Measures
31104	Wall, retaining	meters long	G1M2
312	Water Supply (domestic)		
31201	Aqueduct	meters long	G1M2
31202	Dam	number of	G1M2
31203	Flume	meters long	G1
31204	Intake	meters long	G1
31205	Jui/ditch/canal	meters long	G1
31206	Reservoir	number of	G1
31207	Spring	number of	G1
31208	Syphon	meters long	G1
31209	Tunnel	cubic meters	G1
31210	Well	number of	G1
31211	Piped distribution	number of	G1
313	Irrigation		
31301	Aqueduct	meters long	G1M2
31302	Culvert	meters long	G1M2
31303	Dam	meters long	G1M2
31304	Jui (Ditch)	meters long	G1
31305	Flume	meters long	G1
31306	Intake	meters long	G1
31307	Kariz	meters long	G1
31308	Reservoir	number of	G1
31309	Sluice gate	number of	G1
31310	Spring	number of	G1
31311	Syphon	number of	G1
31312	Tunnel	cubic meters	G1
31313	Weir	number of	G1
31314	Well	number of	G1
314	Buildings		
31401	Government building	square meters	-
31402	House	square meters	-
31403	Medical building	square meters	-
31404	Mosque	square meters	-
31405	School/Training center	square meters	-
31406	Store house	square meters	-
315	Transportation infrastructure		
31501	Airport	number of	-
31502	Bailey Bridge	number of	H1
31503	Other bridge	number of	H1
31504	Path bridge	number of	H1
31505	Cable bridge	number of	H1
31506	Causeway	number of	H1
31507	Irish Crossing (wash lining)	number of	H1
31508	Railway	kilometers	H1
31509	Primary roads	kilometers	H1
31510	Secondary roads	kilometers	H1
31511	Tertiary roads	kilometers	H1
31512	Mule path	kilometers	H1
316	Power and electrification		

ABC D	Activity Description	Units	Performance Measures
31601	Hydroelectric generator	number of	-
31602	Wind-driven generator	number of	-
317	Production tools; fuel		
318	Operating costs		
31801	Field salaries	number of	G1H1
31802	Food for work	metric tons	M4
31803	Monitor salaries	number of	M5
32	Human resource development		
321	Training		
32101	Technical in Afghanistan	weeks	B1
32102	Managerial in Afghanistan	weeks	E2
32103	Technical in Pakistan	weeks	B1
32104	Managerial in Pakistan	weeks	E2
32105	Technical abroad	weeks	E1
32106	Managerial abroad	weeks	E1
322	Conferences and workshops		
32201	Support for events	number of	F1
323	Participation in intl. forums		
32301	Support for individuals	number of	F1
324	Operating costs		
32401	Field salaries	number of	B1E2
32402	Afghan facilities	number of	M6
32403	Non-Afghan facilities	number of	M6
32404	Monitor salaries	number of	M5
4	Production		
41	Mineral production		
42	Biological production		
421	Plants and plant products		
42101	Apple	metric tons	-
42102	Apricot	metric tons	-
42103	Chickpea (dal chana/garbanzo)	metric tons	-
42104	Cotton	metric tons	-
42105	Cucurbit	metric tons	-
42106	Gourd	metric tons	-
42107	Grape	metric tons	-
42108	Green pea (mutter)	metric tons	-
42109	Kidney bean (lubia)	metric tons	-
42110	Lentil	metric tons	-
42111	Licorice	metric tons	-
42112	Maize	metric tons	-
42113	Melon	metric tons	-
42114	Mulberry	metric tons	-
42115	Olive	metric tons	-
42116	Peach	metric tons	-
42117	Plum	metric tons	-
42118	Poplar	metric tons	-
42119	Poppy, opium	metric tons	-
42120	Raisin	metric tons	-

ABC D	Activity Description	Units	Performance Measures
42121	Rice	metric tons	-
42122	Wheat	metric tons	-
422	Seed		
42201	Delivered Cross Border	metric tons	-
42202	In-country multiplication	metric tons	-
423	Animals and animal products		
42301	Carp	number of	-
42302	Chicken	number of	-
42303	Chicken eggs, fresh	dozens	-
42304	Cow, dairy	number of	-
42305	Duck	number of	-
42306	Horse	number of	-
42307	Mule	number of	-
42308	Oxen	number of	-
42310	Mutton, fresh	kilos	-
42310	Sheep	number of	-
42311	Fowl, fresh	kilos	-
42312	Beef, fresh	kilos	-
424	Chemical inputs and feed		
42401	DAP	metric tons	-
42402	NPK	metric tons	-
42403	Urea	metric tons	-
425	Production tools and fuel		
42501	Fish net	number of	-
42502	Fuel, diesel	liters	-
42503	Fuel, kerosene	liters	-
42504	Hand tools	number of	-
42505	Animal drawn implements	number of	-
42506	Thresher, machine powered	number of	-
42507	Tractor	number of	-
42508	Tractor drawn implements	number of	-
42509	Tractor spare part	number of	-
42510	Water mill	number of	-
42511	Wheelbarrow	number of	-
42512	Wind mill	number of	-
426	Health care		
42601	Antifungal chemicals (list)	metric tons	-
42602	Herbicides	metric tons	-
42603	Pesticides	metric tons	-
42604	Veterinary medicine	metric tons	-
42605	Animal vaccinations	number of	-
427	Animal training		
42701	Traction training	weeks	A2
428	Operating costs		
42801	Field salaries	number of	
42802	Afghan facilities	number of	A2
42803	Non-Afghan facilities	number of	M6
42804	Food for work	metric tons	M4
42805	Monitors salaries	number of	M5

ABC D	Activity Description	Units	Performance Measures
43	Manufacturing industries		
431	Cottage industry		
43101	Textiles	number of	M3
43102	Agriculture construction	number of	M3
43103	Micro-ag. enterprises	number of	M3
432	Operating costs		
43201	Field salaries	number of	M3
43202	Afghan facilities	number of	M6
43203	Non-Afghan facilities	number of	M6
43204	Monitors salaries	number of	M5
44	Service industries		
441	Employment		
44101	Employment exchange	number of	M3
442	Operating costs		
44201	Field salaries	number of	M3
44202	Afghan facilities	number of	M6
44203	Non-Afghan facilities	number of	M6
44204	Monitors salaries	number of	M5
45	Trade development		
451	Credit assistance		
45101	Letters of credit	number of	M3
452	Bazaar development assistance		
45201	Export marketing	days	M3
45202	Trade negotiation	days	M3
45203	Product specification	days	M3
45204	Vendor identification	number of	M3
453	Transportation assistance		
45301	Transportation clearances	number of	M3
45302	Transportation rebates	number of	M3
454	Operating costs		
45401	Field salaries	number of	M3
45402	Afghan facilities	number of	M6
45403	Non-Afghan facilities	number of	M6
45404	Monitors salaries	number of	M5
46	Human resource development		
461	Training and extension		
46101	Ag. marketing agent training	days	A1
46102	Demonstration farm	number of	A2
46103	Technical in Afghanistan	weeks	A2
46104	Managerial in Afghanistan	weeks	A2
46105	Technical in Pakistan	weeks	A2
46106	Managerial in Pakistan	weeks	A2
46107	Technical abroad	weeks	A2
46108	Managerial abroad	weeks	A2
462	Conferences and workshops		
46201	Support for events	number of	A2F1
463	Participation in intl. forums		
46301	Support for individuals	number of	A2F1
464	Operating costs		

ABC D	Activity Description	Units	Performance Measures
46401	Field salaries	number of	A1A2
46402	Afghan facilities	number of	M6
46403	Non-Afghan facilities	number of	M6
46404	Monitors salaries	number of	M5
5	Health		
51	Preventive med. facility support		
511	Immunization cold chains		
51101	Field salaries	number of	J1
51102	Medicine/supplies/equipment	metric tons	J2
512	MCH posts		
51201	Field salaries	number of	J1
51202	Medicine/supplies/equipment	metric tons	J2
513	MCH clinics		
51301	Field salaries	number of	J1
51302	Medicine/supplies/equipment	metric tons	J2
52	Clinical care facility support		
521	Basic health post		
52101	Field salaries	number of	J1
52102	Medicine/supplies/equipment	metric tons	J2
522	Basic health center (clinic)		
52201	Field salaries	number of	J1
52202	Medicine/supplies/equipment	metric tons	J2
523	Comprehensive health center		
52301	Field salaries	number of	J1
52302	Medicine/supplies/equipment	metric tons	J2
524	Primary care hospital		
52401	Field salaries	number of	J1
52402	Medicine/supplies/equipment	metric tons	J2
525	Provincial hospital		
52501	Field salaries	number of	J1
52502	Medicine/supplies/equipment	metric tons	J2
526	Regional hospital		
52601	Field salaries	number of	J1
52602	Medicine/supplies/equipment	metric tons	J2
527	Training facilities in Pakistan		
52701	Field salaries	number of	J1
52702	Medicine/supplies/equipment	metric tons	J2
53	Human resource development		
531	Training		
53101	Adv. medical assistant	weeks	D1
53102	BHW refresher	weeks	D1
53103	Cold chain manager	weeks	D1
53104	Cold chain technician (CCT)	weeks	D1
53105	Community dev./hlth. educator	weeks	D1
53106	Female health worker (FHW/Dai)	weeks	D1
53107	Immunization tech. (IT)	weeks	D1
53108	Laboratory technician	weeks	D1
53109	Male basic health worker (BHW)	weeks	D1

ABC D	Activity Description	Units	Performance Measures
53110	MCH broadcasts	weeks	D1
53111	MCH clinic planning/training	weeks	D1
53112	MCH course	weeks	D1
53113	Nurse inservice training	weeks	D1
53114	Nurse-midwife training	weeks	D1
53115	Nurse refresher	weeks	D1
53116	Outreacher worker (ORW)	weeks	D1
53117	Paramedic	weeks	D1
53118	Paramedic, advanced	weeks	D1
53119	Paramedic, expanded	weeks	D1
53120	Paramedic, refresher	weeks	D1
53121	Physician refresher	weeks	D1
53122	Physician retraining	weeks	D1
53123	Public health worker (PHW)	weeks	D1
53124	Rural health officer (RHO)	weeks	D1
53125	Teaching clinic sessions	weeks	D1
53126	Training evaluator	weeks	D1
53127	Trng. of trainers, physician	weeks	D1
53128	Vaccinator	weeks	D1
53129	X-ray technician	weeks	D1
532	Conferences and workshops		
53201	Support for events	number of	D1F1
533	Participation in intl. forums		
53301	Support for individuals	number of	D1F1
534	Operating costs		
53401	Field salaries	number of	J1
53402	Facilities	number of	M6
53403	Non-Afghan facilities	number of	M6
53404	Monitor salaries	number of	M5
6	Education		
61	Support for indiv. higher educ.		
611	Weber Scholarship program		
61101	Support for individuals	number of	E1
612	Afghan Scholarship program		
61201	Support for individuals	number of	E1
62	Short-term educational programs		
621	Adult literacy		
62101	Field salaries	number of	F2
62102	Supplies	sets of	
62103	Textbooks	number of	F2
63	Educational facility support		
631	Primary schools		
63101	Field salaries	number of	I1I2
63102	Supplies	sets of	
63103	Textbooks	number of	I3
633	Secondary schools		
63301	Field salaries	number of	-
63302	Supplies	sets of	-

ABC D	Activity Description	Units	Performance Measures
63303	Textbooks	number of	-
634	Trade/office skills training		
63401	Technical in Afghanistan	weeks	E2
63402	Managerial in Afghanistan	weeks	E2
63403	Technical in Pakistan	weeks	E2
63404	Managerial in Pakistan	weeks	E2
64	Human resource development		
641	Training		
64101	Master teacher trainer	weeks	C1
64102	Teacher trainer	weeks	C1
64103	Teacher	weeks	C1
642	Conferences and workshops		
64201	Support for events	number of	E2
643	Participation in intl. forums		
64301	Support for individuals	number of	E1
644	Operating costs		
64401	Field salaries	number of	I1
64402	Afghan facilities	number of	M6
64403	Non-Afghan facilities	number of	M6
64404	Monitors salaries	number of	M5
7	Public policy and admin.		
71	Public information		
711	Information gathering		
71101	Field survey	Rs.	O2
71102	Satellite information	Rs.	O2
712	Computerized data processing		
714	Operating costs		
71401	Field salaries	number of	O2
72	Government institution support		
724	Local level		
72401	Shura formation	number of	F1M7
73	Human resource development		
731	Training		
73101	Public administration training	days	E2
732	Conferences and workshops		
73201	Support for events	number of	E2
733	Participation in intl. forums		
73301	Support for individuals	number of	I1
734	Operating expenses		
73401	Field salaries	number of	
73402	Afghan facilities	number of	E1E2
73403	Non-Afghan facilities	number of	M6
73404	Monitors salaries	number of	M5
74	Narcotics		
741	Awareness		
74101	Pilot tests	number of	L1
74102	Community campaigns	number of	L1
74103	Media campaigns	number of	L2

ABC D	Activity Description	Units	Performance Measures
74104	Specialists trained	number of	C2
74105	Field salaries	number of	L1L2
742	Research		
74201	Surveys	number of	K1
74202	Strategies tested	number of	K1
74203	Strategies identified	number of	K1
74204	Training	weeks	C2
74205	Field salaries	number of	K1
8	Expression of ideas; culture		
82	Human resource development		
821	Conferences and workshops		
82101	Support for events	number of	F1M7
822	Participation in intl. forums		
82201	Support for individuals	number of	F1
823	Operating costs		
82301	Field salaries	number of	F1

Appendix C

USING THE PERFORMANCE DATABASE SYSTEM

This appendix summarizes usage of the computerized Performance Database System (PDS). Usage of the system is administered by Roger Helms, Director of the Data Collection and Analysis Unit (DCA), who is familiar with its details.

PDS consists of two major programs, REP and REPCONV. The programs were written in dBASE III Plus and compiled with Clipper to result in assembly language (.EXE) programs.

REP (short for AID/Rep) is the main database system for entering data and printing reports. DCA uses it for collecting and combining data from various contractors and producing summary reports.

Contractors who type in data quarterly also use REP. REP's data entry screen allows them to record each activity, and a special print instruction, "Data List by Location," can be used to check data entries. The file can then be saved on diskette under the contractor's unique database name and delivered to DCA. Specific instructions for data entry are given in Appendix D.

REPCONV (AID/Rep Conversion Program) is used by contractors with unique computer databases to select and reformat data for quarterly reports in accordance with DCA's requirements. Different versions of REPCONV are being written for each contractor. With REPCONV, quarterly reporting simply involves making a menu selection and delivering the diskette to DCA. Specific instructions for data conversion are given in Appendix E.

Each quarter, DCA will receive a stack of diskettes, one from each contractor. Each contractor's database is saved under a unique name beginning with REP. For example, the file name for the Rural Assistance Program (RAP), is REPRAP.DBF. DCA uses the "append" instruction in REP's menu to combine these data into one master file that can be saved as REPDCA.DBF. This master file is then used to print analytical reports.

The first report on REP's print menu, "Indicators by Objective," summarizes accomplishments by goals. The second, "Indicators by Location," describes achievements by MCD. The third selection, "Data List by Location" is not an analytical report. It is to be used for checking data.

Additional analytical reports are envisioned. A "Performance Budgeting Report" will focus on financial information. The report will combine budgetary information from the program office with expenditure data from contractors. It will differ from current financial reports in that contractor expenditures will be reported by objective rather than by line item. Eventually, PDS will produce a Lotus 1-2-3 file to combine with AID/Rep program office files. At present, while definitions are in flux, this operation will be done by hand. PDS prints the required data in the "Indicators by Objective" report.

Another proposed type of report will compare data from different quarters. This will be done by hand for now but will eventually be computerized. Because of disk space limitations, the PDS system has been designed to consider only one quarterly database at a time. By saving quarterly reports on disk, however, trends and comparisons can be analyzed.

Other reports will be added to REP as needed.

Appendix D

DATA ENTRY INSTRUCTIONS

The following steps should be taken to execute the data entry program.

1. Install data conversion system on computer hard disk in REP directory. Create directory by using the **md** or **mkdir** DOS commands. Copy programs, provided by Roger Helms, into the directory.

2. Type REP at the DOS prompt. A menu will appear.

3. Choose menu selection 1 to enter, modify, or delete records. The options in the data entry format are explained below. The appropriate response should be entered for each option.

   Province, district, village: The location codes for project, district, and village are taken from an updated version of the "Gazetteer." The most current village codes are located in a paper version of the "Gazetteer."

   Activity level A, B, C, D: Activity level codes are defined in the activity level report shown in Appendix B.

   Contractor number: A contractor identification number is selected by entering the set default menu selection located in Selection 2 of the main menu of the data entry programs and located in Selection 4 of the data conversion programs.

   Sequence number: This option allows each record to have a unique identifier. In the data entry programs the sequence number is updated automatically as records with the same location, contractor number, and activity codes are entered. The conversion programs must assign sequence numbers for all similar converted records. Sequence numbers follow the format 01, 02, 03, 04, and so on.

   Quantity: Quantity refers to the amount of services provided in Afghanistan. Examples of unit measures for activities include "numbers" of clinics,

"metric tons" of wheat, and "weeks" of training. See Appendix B for the unit of measure for each activity.

USAID contribution: This amount totals all USAID funds (in rupees) spent for goods and services entering Afghanistan, not including transportation costs.

Transportation: This option accounts for the transportation cost (in Pakistani rupees) of getting goods and services into Afghanistan.

Activity start: The activity begins on this date.

Activity end: The activity ends on this date.

Status, verified: The numbers -1, 0, 1, 2 indicate the status of monitoring.

-1	monitored with poor result
0	not monitored
1	monitored with acceptable result
2	monitored with favorable result

Male Afghan salaried beneficiaries: The number of male salaried beneficiaries in the field is entered for this option.

Female Afghan salaried beneficiaries: The number of female salaried beneficiaries in the field is entered here.

Non-Afghan salaried beneficiaries: The number of non-Afghan salaried beneficiaries in the field is entered here.

Male unsalaried beneficiaries: This option accounts for the number of men and boys who benefitted from AID/Rep-funded activities but who did not receive salaries.

Female unsalaried beneficiaries: Here, the number of women and girls who benefitted from AID/Rep-funded activities but who did not receive salaries are counted.

Intermediary: This is the person who facilitated movement of goods and services into Afghanistan.

Reference no.: The contractor accounting or reference code provides an audit trail back to contractor records.

4. Choose menu selection 2 to set system defaults.

5. Choose menu selection 3 to print reports.

6. Choose menu selection 4 to execute program utilities for indexing files and copying data to and from a computer diskette.

Appendix E

CONVERSION INSTRUCTIONS

To execute the conversion program, these steps should be followed.

1. Install the data conversion system on computer hard disk in the REPCONV directory. Create a directory by using the **md** or **mkdir** DOS commands and copy the programs, provided by Roger Helms, into the directory.

2. Type REPCONV at the DOS prompt. A menu will appear.

3. Choose menu selection 1 to convert data from contractor format to DCA format.

4. Choose menu selection 2 to manually edit converted data. The data editing format is the same for the data entry system. (Follow the instructions provided in Appendix D.)

5. Choose menu selection 3 to print reports.

6. Choose menu selection 4 to execute program utilities for indexing files, setting contractor default code, and copying data to and from a computer diskette.

Appendix F

HOW TO MODIFY PERFORMANCE MEASURES

In anticipation of changing Mission goals, objectives, indicators and performance measures, DCA's Performance Database System (PDS) is designed to permit relatively effortless redefinition of performance measures. Provisional performance measures are proposed in Exhibit 1. These measures are expected to change as the Mission continues to revise goals, objectives and indicators.

The codes for the definitions of performance measures are shown in the last column of the Activity Code Report (Appendix B). The code for each performance measure (shown in Exhibit 1—e.g., A1, A2, B1) is entered following each activity included in its definition. DCA's report totals these activities into a single summary measure. Note that the quantitative measure of performance (e.g., MT or km) will be meaningful only if all component activities have the same units. After initial adjustments, the many detailed activities reported by contractors are expected to stay relatively constant. The few performance measures reported by DCA, however, will vary.

To change the definitions of performance measures, DCA's computer specialist has only to revise the last column of Appendix B. Each activity can be included in up to *five* different performance measures. This is especially useful for coding cross-cutting concerns. Thus, for example, irrigation canals contribute to both "Rural Infrastructure" (G1) and "Environmental Management Activities" (M2). This is indicated by entering "G1M2" under performance measures.

To make these changes within the REP computer program, the user selects "Utilities" from the main menu and then "Modify Performance Measures" from the utilities menu. The program then presents a screen equivalent to Appendix B, in which the last column can be modified.

Appendix G

LIST OF CONTACTS AND SOURCES

Organization	Individuals
AID/Rep	Basharat Ali Robert Bakley Philip Church Hank Cushing Beverly Eighmy Thomas Eighmy Nancy Hardy John Huxtable Gary Lewis Al Nehoda Andrew Rude Diana Stiles Curtis Wolters
AID/W	P. Davis C. Herman Elizabeth Kvitahvili
ACBAR	Abdul Hakim Nancy Dupree
AF	Elizabeth White
ANRAP	Kate Huth Shafqat Shah
CARE	William Huth

Organization	Individuals
CCSC	James Winslow Ramine* Safi*
CMC	Jeff Paulsen
DAI	Miles Tudor Tom Harrington Asif Niazi Kerry Connor
FEP	Heidi*
IMC	William Naj
MSH	Paul Ickx
RAP	Andrew Wilder Evan*
Ronco	Guy Bowen Sarwar Sadiq James Walker
UNO	Gerry Boardman Moqim Rahmanzai Amhad Zia Rukhsana Zeb
VITA	Robert MacMakin Jalal*
WHO	Khan Aga Aseel

*Last name not recorded.

Appendix H

SELECTED BIBLIOGRAPHY

Abbreviations

ACBAR	Agency Coordinating Body for Afghan Relief
A.I.D.	U.S. Agency for International Development
AID/Rep	Office of the A.I.D. Representative for Afghanistan Affairs
AID/W	A.I.D., Washington office
CDIE	Center for Development Information and Evaluation
DAI	Development Alternatives, Inc.
DCA	Data Collection and Analysis Unit
IRC	International Rescue Committee
MSI	Management Systems International
RAO	Regional Affairs Office
RAP	Rural Assistance Program
USAID	A.I.D. Mission
WHO	World Health Organization

ACBAR. May 1991. "ACBAR Directory of Members, 1991-92." Peshawar.

————. Aid and Policy Coordination Department. February 1991. "Database of NGO Activities." 4th ed. Peshawar.

————. January 1991. "Guidelines for the Planning and Implementation of Projects for Agricultural Rehabilitation in Afghanistan." 2nd ed. Peshawar.

————. April 1990. "A Discussion of Afghan Involvement in Reconstruction and Relief Programmes." Peshawar.

Afghan Demographic Studies. February 1975. "A Provisional Gazetteer of Afghanistan." Kabul: Central Statistics Office.

A.I.D. August 1990. "Afghanistan Cross-Border Humanitarian Assistance Program: Briefing Papers." Islamabad.

————. April 1991. "An Agencywide Program Performance Information System for Strategic Management: A Plan for Design and Implementation." Draft report. Washington, D.C.

————. April 1987. "Guidelines for Data Collection, Monitoring, and Evaluation Plans for A.I.D.-Assisted Projects," A.I.D. Program Design and Evaluation Methodology Report No. 9. Washington, D.C.

————. CDIE. April 1991. "PRISM: An Agencywide Program Performance Information System for Strategic Management." Washington, D.C.

AID/Rep. May 1991. "Afghanistan Strategy Document." Islamabad.

————. RAO. Data Collection and Analysis Unit. December 1989. "Consolidated Report, Facilities and Activities Inside Afghanistar. Funded by the U.S. Agency for International Development." Peshawar.

————. December 1990. "Cross-Border Independent Monitoring, Pilot Mission, September 1990." Peshawar.

Asia Foundation. May 1991. "Quarterly Report, Jan. 1—Mar. 31, 1991, Democratic Pluralism Initiative." Unpublished report.

Barney, R. November 1990. "A Computer System for AID/Rep Performance Indicators. Final Report." Islamabad: AID/Rep Program Office.

Boardman, G., et al. May 1991. "Quarterly Report, Jan. 1—Mar. 31, 1991, Education Sector Support Project and Manpower Training Program." Unpublished report.

Cooley, L., A. Eisendrath, and G. Britan. December 1989. "Improving the Collection and Use of Program Performance Data.," New Delhi: USAID/India.

DAI. May 1991. "Quarterly Report, Oct.—Dec. 1990, Agricultural Sector Support Project, Private Sector Agribusiness." Unpublished report.

————. September 1990. "Private Sector Agribusiness Support." Unpublished report.

Eighmy, T. May 1990. "Afghanistan's Population, Inside and Out." Islamabad: AID/Rep.

Huxtable, J. June 1991. Performance Indicators for FFW Projects. Memorandum to P. Evangelou.

IRC. March 1991. "IRC Annual Report 1990." Peshawar.

————. RAP. n.d. "Project Design and Data Collection Guidelines for RAP Projects." Draft report. Peshawar.

————. August 1990. "Rural Assistance Program Manual." Peshawar.

Joffe, H., and G.L. Scott. "Quarterly Report, Jan.—Mar. 1991, Construction Control Services Corporation." Unpubliished report.

Louis Berger International, Inc., and Checchi & Co. February 1990. "Pakistan Monitoring Systems for Rural Development, Agriculture, Human Resource Development and Housing." Final report. USAID/Pakistan.

Management Sciences for Health. "Quarterly Report, Jan. 1—Mar. 31, 1991." Unpublished report.

————. November 1990. "Work Plan for Project Year 5, FY-91." Unpublished report.

MSI. April 1991. "Program Performance Information Systems—Lessons Learned from Round II of the Process: Final Report." Washington, D.C.

Ruiz, A. May 1991. "Consolidated Annual Implementation Plan, Second Year—1991/92 [Agriculture Sector Support Project, Agriculture and Rural Rehabilitation]." Unpublished report.

WHO. n.d. "Health Information System for Afghanistan." Peshawar.

Wolters, C. May 1990. "Baseline Data in the Context of the Cross-Border Humanitarian Assistance Program." Islamabad: AID/Rep Program Office.