

# PRELIMINARY COST/BENEFIT ANALYSIS OF THE INFORMATION SYSTEMS PLAN

## DRAFT QUESTIONNAIRE

---

**April 5, 1993**

**Prepared for:**  
The Agency for International Development  
Office of Information Resources Management

**Through the:**  
General Services Administration  
National Capital Region

Contract GS00K90AJD0621  
Task Number N3S723001

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1. INTRODUCTION . . . . .	1-1
1.1 Background and Understanding . . . . .	1-1
1.2 Scope of the Current Milestone . . . . .	1-1
1.3 Technical Approach . . . . .	1-2
2. INTERVIEW PROCESS . . . . .	2-1
2.1 Introduction . . . . .	2-1
2.2 Methodology . . . . .	2-1
2.3 Questionnaire . . . . .	2-2

## 1. INTRODUCTION

### 1.1 BACKGROUND AND UNDERSTANDING

The Agency for International Development (A.I.D.) recently prepared an Information Systems Plan (ISP) to begin a process of upgrading all its information systems. The A.I.D. Finance and Administration Directorate, Office of Information Resources Management (FA/IRM) enlisted the assistance of OGDEN Government Services for preparation of a preliminary cost/benefit analysis of the ISP.

A.I.D. is at a very early stage in the initiation phase of its ISP effort. At this juncture, the Agency has estimated the non-recurring development and five year implementation costs for hardware, software, systems development, security, and installation, but has not estimated full life cycle costs and the cost of the current information management/information technology (IM/IT) program. Our responsibilities are to:

- Identify and quantify all current IM/IT expenditures and project these costs for the ISP life cycle period.
- Define the full life cycle costs of the ISP systems, including validating the estimates of system development costs.
- Analyze and project the impact on Agency IM/IT expenditures of implementing the ISP over the five year implementation period and beyond.
- Define and analyze both the quantitative and qualitative benefits likely to accrue to the Agency, including projected cost savings once the ISP is fully implemented.

We are accomplishing the activities in the order as listed. We are currently accountable for achieving the Milestone, " Describe, Quantify, and Analyze the Current IM/IT Program Expenditures." We are required to provide the Agency two deliverable products, a draft questionnaire that we proposed to use to obtain information and collect data to achieve the milestone, and an analysis of expenditures.

### 1.2 SCOPE OF THE CURRENT MILESTONE

Our overall work is focusing on collecting and analyzing the data and information necessary for A.I.D. to determine whether implementation of its ISP will yield sufficiently significant benefits and savings to the Agency to warrant its making the investment. We will provide a preliminary cost/benefit analysis with the data being arrayed by the eight business areas and the six other major initiative areas.

While our work in pursuit of the current milestone, as described above, is focusing on determining the cost of the current program, during this milestone activity we will also collect data needed to achieve subsequent milestones.

There are two reasons for identifying and documenting the cost of the current IM/IT program:

- To identify the baseline costs against which to measure the full life cycle costs of the ISP in a cost/benefit analysis for each year of the ISP's life cycle, and
- To identify for the FA/IRM Director, who is also the Agency's DSO, Designated Senior (IRM) Official, the universe of Agency expenditures for which he is expected to provide oversight.

Identifying and documenting the current IM/IT program expenditures involves determining the cost of the program today as well as projecting its cost during each year of the ISP implementation phase-in period. Additionally, this requires projecting the current IM/IT program expenditures beyond ISP implementation, through the ISP full life cycle period, to the extent elements of the current program continue to exist. The range of issues that must be addressed to accomplish this is:

- The definition of IM/IT, i.e., what is an IM/IT cost or IM/IT resource?
- What is the relationship of the current program's systems to the eight business areas defined in the ISP, i.e., what are the bases for allocating or distributing the costs to the eight business areas?
- What current program activities and associated costs will be eliminated or reduced as a result of implementation of the ISP systems?
- What is the ISP life cycle period, and what are the time period segments of the life cycle, i.e., with phased-in implementation when does implementation end and the system operation begin?

### **1.3 TECHNICAL APPROACH**

We are collecting the information and data through a review of written reports and other related documentation provided by the Agency, interviews and conversations with numerous individuals within FA/IRM, and more structured interviews of individuals within A.I.D., but outside FA/IRM. These structured interviews are the ones for which we are required to provide a draft questionnaire.

We began the current activity by reviewing the Agency's budget documentation, including the Congressional Presentation and several Mission budgets. We also reviewed the FA/IRM budget and descriptions of how it is constructed and maintained. We then interviewed the

individual in FA/IRM's Planning, Management and Acquisition Division who has primary operating responsibility for preparation of documentation regarding budgeting and accounting for the current IM/IT program. The crux of the discussion was on the following two documents, which, as required by OMB Circular A-11, Preparation and Submission of Annual Budget Estimates, are prepared in the Agency and submitted to the Office of Management and Budget (OMB) and the Congress as part of the Agency's budget submission:

- Exhibit 43-A, Report on Obligations for Information Technology Systems
- Exhibit 43-B, Major Information Technology Acquisition Plans

Through this discussion we learned specifically which costs the Agency includes in these two reports, how it goes about obtaining the data and constructing the reports, and what it believes the data gaps are. The subsequent interviews regarding the activity of identifying the current program costs will be for the purpose of validating the data submitted to FA/IRM and determining the costs not currently submitted to FA/IRM for inclusion in its reports.

## 2. INTERVIEW PROCESS

### 2.1 INTRODUCTION

As discussed in the Technical Approach above, data is being collected through a process of interviews of A.I.D. personnel within FA/IRM and in other components of the A.I.D. organization. Within FA/IRM we will be interviewing people responsible for the ISP as well as individuals responsible for functions that will be impacted by ISP implementation, in addition to personnel most familiar with systems development activities in Missions and other non FA/IRM units. Outside FA/IRM we will interview personnel who generate IM/IT expenditures that are financed by non-FA/IRM funding or are accomplished through other than FA/IRM contract or procurement vehicles.

All events in this task follow a fast track; eighteen weeks are allotted for completion of the total task. Work on most deliverables must be substantially begun before full completion of the preceding deliverable product. Consequently, there will not be sufficient time to interview people more than one time each. When we interview individuals during accomplishment of the current milestone, we will discuss not only the current IM/IT program, but other phases of the project as well.

### 2.2 METHODOLOGY

The aim of the interview process is to obtain information sufficient to achieve the following objectives:

- Determine existing FIP zero-based costs, i.e., those costs necessary to continue operations, with no development or major enhancements, in FA/IRM, other AID/W bureaus/offices, and at missions.
- Determine how existing FIP costs would change over the ISP life cycle under a status quo scenario, i.e., based on changing use and volume levels as opposed to changes due to new development.
- Identify ongoing or currently planned FIP initiatives and development projects; determine whether these projects are included in, or are in any way redundant with any activities in the ISP; and determine existing and future estimated costs for these projects.
- Determine the impact of implementing the ISP on existing FIP costs and ongoing or currently planned FIP projects.
- Evaluate whether the existing ISP development cost estimates and the assumptions and support for these estimates are logical and reasonable.

- Identify and evaluate management issues regarding IRM costs, planning, budgeting, and evaluation.

We will analyze the information yielded from the interviews that pertains to the current IM/IT program and present the results to the Agency in a report of the analysis of current IM/IT program expenditures. The remaining information will be analyzed for presentation in subsequent reports.

To obtain the information and achieve the above objectives we will interview the following types of individuals:

- FA/Budget staff involved with FIP budgeting.
- Administrative staff in program offices involved in preparing and reviewing budget submissions for AID/W and the field.
- Procurement staff involved in purchasing and contracting for FIP resources and activities.
- Finance staff involved in accounting for FIP resources and activities.
- Program managers with knowledge of FIP resources and activities outside of FA/IRM.
- Individuals within FA/IRM responsible for generation of FIP costs.

We will also need to speak with individuals within FA/IRM responsible for the ISP; personnel responsible for functions that will be impacted by ISP implementation, e.g., telecommunications, security, and similar functions; and personnel most familiar with systems development activities in Missions and other non- FA/IRM units.

We have constructed an interview questionnaire which is intended to guide our discussions with the interviewees.

### 2.3 QUESTIONNAIRE

Since the people we will be interviewing have a variety of different roles in the Agency and various, differing interfaces with IRM or FIP, we will not be asking the same questions to each individual or category of individuals. We have not developed separate questionnaires for each, but have constructed a questionnaire that is comprehensive in content. We will use it as a discussion guide and simultaneously as a checklist to assure that we cover all necessary and appropriate topics with each interviewee.

The interview process through use of the questionnaire will address four principal topic areas, as follows:

- The process of FIP resource planning, budgeting, and spending,
- The estimated amount of existing FIP costs,
- The estimated ISP development costs, and
- The other benefits and cost savings expected to result from ISP implementation.

The questions encompass the topic areas listed immediately above and were written to meet the interview objectives listed above in the previous subsection. To that end the questions are not stated on the questionnaire as they will be asked, but rather to illustrate the outcome of the interviews, i.e., the information to be obtained through the interview process.

The interview questionnaire is shown on the following pages.

# AID ISP PRELIMINARY COST BENEFIT ANALYSIS

## INTERVIEW QUESTIONNAIRE

---

### Planning, Budgeting, and Spending for FIP Resources and Activities

Describe the process of budgeting for FIP resources and activities involving the 43A and 43B schedules.

Identify significant spending on FIP from OE that is not reported in the 43As.

Describe ways in which program funds are spent on FIP.

Describe how FIP spending is recorded and accounted for.

Describe how procurement for FIP resources is conducted.

Describe how the planning, budgeting, and accounting for FIP could be improved.

### FIP Cost Estimates

Provide descriptions and fund amounts/estimates for

- Existing zero-based FIP costs, i.e., those costs necessary to continue operations, with no development or major enhancements, categorized by direct-hire FTEs, contractor work years and dollars, and other outlays for equipment, user charges, etc,
- Estimated changes to the zero-based FIP costs based on expected changes to levels of use and demand over time,
- Ongoing and currently planned FIP development projects (other than the ISP), with actual and projected costs categorized by direct-hire FTEs, contractor work years and dollars, and other outlays for equipment, user charges, etc,
- Impact of the ISP on the existing zero-based FIP costs, and
- Impact of the ISP on the ongoing and currently planned FIP development projects.

Provide these descriptions and fund amounts/estimates for each for the eight business areas:

- Core Accounting
- Procurement

- Annual Budgeting
- Operations Management
- Property Management
- Workforce Management
- Guidance
- Communications

Categorize the discussion of costs as follows:

- Hardware, e.g. mainframe, minis, PCs, peripherals - purchase, installation, maintenance and repair, operations, and replacement.
- Application Software - purchase, development, installation, conversion and implementation, maintenance, and operations
- Non-Application Software, e.g. DBMS - purchase, development, installation, conversion and implementation, maintenance, and operations
- Telecommunications - purchase, installation, hook-up, usage, maintenance, and operations
- Data and Database Administration - maintaining tables, files, publications, and the information contents of these items.
- FIP Security - purchase and development, implementation, maintenance, and operations
- Overhead - space, property, and supplies associated with FIP
- Training associated with FIP
- Travel associated with FIP

In particular, address:

- Center for Development, Information, and Evaluation (CDIE)
- Food for Peace FIP activities
- FVA FIP
- PTIS (International Training) FIP

5

## **ISP Development Costs**

Identify and discuss concerns with existing ISP development cost estimates and the support and assumptions used to derive the cost estimates.

Identify and discuss factors, variables, and contingencies that could cause the ISP development costs to vary.

## **Other Benefits and Cost Savings of the ISP**

Identify, describe, and estimate dollar amounts associated with opportunities for benefits and costs savings resulting from implementing the ISP, for example, for activities to:

- Automate tasks currently performed manually.
- Eliminate redundant data entry.
- Streamline data entry with on-line, interactive entry and editing, improved error correction features, common user interface (CUI), and greater access to PCs/terminals.
- Eliminate or reduce the need to reconcile data across applications and systems.
- Provide for improved reporting through ad-hoc reporting and more standard reports.
- Provide greater access to various systems and data through open systems, greater networking and telecommunications, and corporate systems and databases.
- Reduce time spent searching and researching for information by standardizing and defining data.
- Improved management decision making resulting from better and more timely information and from improved project management and correspondence tracking capabilities.