

RETURN TO NE/DP  
PAF

PD. 11-10-80

**DRAFT**

**A. I. D. EVALUATION**

**HANDBOOK**

Program Evaluation Systems Division  
Office of Evaluation  
Bureau for Program and Policy Coordination  
U.S. Agency for International Development

August 1980

PROBLEM: Can This Project Be Evaluated?



LOG FRAME

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

<u>Chapter</u>	<u>Topic</u>	<u>Page</u>
	Preface	
	Acknowledgements	
I	An Overview of Evaluation	
	A. AID Policies Regarding Evaluation . . . . .	
	B. The Mandate for Evaluation in A.I.D . . . . .	
	C. Definitions of Evaluation . . . . .	
II	The Project Design and Evaluation	
	A. The Logical Approach to Project Design. . .	
	B. Building Evaluation Elements into Design. .	
	1. The Collection of Baseline Data. . .	
	2. Devising Indicators. . . . .	
	3. Means of Verification. . . . .	
	4. External Factors . . . . .	
III	How to Make a Routine Evaluation Using the	
	the Logical Framework Method. . . . .	
	A. How to Make an Evaluation Plan. . . . .	
	B. How to Make a Scope of Work for an	
	Evaluation . . . . .	
	C. How to Do a Routine Evaluation Using the	
	Logical Framework Method . . . . .	
	1. Clarifying the Logframe. . . . .	
	2. Measuring Progress . . . . .	
	3. Assessing Unplanned Change . . . . .	
	4. Searching for Causes . . . . .	
	5. Making Inferences & Drawing	
	Conclusions . . . . .	
	6. Reviewing. . . . .	
	7. Reporting. . . . .	
IV	Guidelines for a Special Evaluation . . . . .	
V	General Guidelines for an Impact Evaluation . . .	
	<u>APPENDICES:</u>	
	A. Brief Glossary of Evaluative Terms	
	B. Suggested Additional Readings	
	C. Assistance on Evaluation Problems	
	D. AID's Project Evaluation Summary	
	E. Analytic Designs for Evaluation Studies	
	F. Acronyms Commonly Used in AID Evaluations	
	G. Evaluation Problems for Which There are No Ready	
	Answers	
	H. Measuring Progress for Women: Women-in-Development	
	Issues in Evaluation	

## P R E F A C E

This handbook is specifically aimed at those persons who have to conduct an evaluation of a program or project under the foreign assistance program of the Agency of International Development of the U.S. International Development Cooperation Agency. It is intended to be of use to A.I.D. employees, other governments and institutions, private and voluntary organizations, and contractors and grantees.

This manual acknowledges the importance of those policies and generalized procedures found in A.I.D. Handbook 3, "Project Assistance" but emphasizes the practical steps which must be conducted for high quality evaluation under difficult conditions.

Robert J. Berg  
Associate Assistant Administrator  
Office of Evaluation  
Bureau for Program and Policy Coordination  
Agency for International Development

## A C K N O W L E D G E M E N T S

A great many people gave of their time and effort to help produce these guidelines. Foremost among these were Herbert D. Turner, formerly with A.I.D. and now with the United Nations; Philip Sperling, also formerly with A.I.D. and author of A.I.D.'s first evaluation handbook published in 1969; Steven Singer, Acting Chief of the Program Evaluation Systems Division, and Richard Blue, Chief, Studies Division, both of the Office of Evaluation of A.I.D. The staff of both division of the Office of Evaluation and the current members of A.I.D.'s Program Evaluation Committee provided many thoughtful suggestions.

July 1980

## CHAPTER I

### AN OVERVIEW OF EVALUATION

For foreign assistance to be successful, it is imperative that a body of substantive knowledge and theory of social and economic development is built from empirical evidence; a body of knowledge which will serve as a basis for formulating policies and strategies on allocating resources, and on designing new programs and projects. EVALUATION, therefore, becomes an integral element of A.I.D.'s policy and program management processes. Responsibility for evaluation is decentralized and should be as close as possible to the user of the evaluation findings, to facilitate prompt and effective utilization.

The Agency for International Development is accountable to Congress, to the President, and to the Director, International Development Cooperation Agency for the effective use of its resources. Since EVALUATION is a key element in that accountability, A.I.D.'s primary policy is that all forms of development assistance are to be evaluated to assure their relevance and utility, and to measure their effectiveness and impact.

#### A.I.D. POLICIES REGARDING EVALUATION:

A.I.D. leadership, both in Washington, D.C. and in the field, is crucial for the effective use of evaluation as an instrument of policy and program design. Agency policy in this regard was articulated by the Administrator in the following statement:

"Much of our New Directions efforts must necessarily be experimental and high-risk. But we need not act as if no past experience is relevant to our decisions. Many of the past activities in LDCs, often activities assisted by A.I.D., are highly relevant to finding out what will and what will not work in the future. I believe it fundamental that policy and program management decision be based as much as possible on organized and broadly based analysis of relevant prior experience wherever it may be found. Stated more simply, executive decisions should be preceded by systematic efforts to exploit evaluation findings. This applies both to regional bureaus in their management or operational programs and to staff bureaus in their formulation of policy, program, and technical guidance..."

Part VI-5 of A.I.D. Handbook 1, "Policy" establishes the policy for evaluation for A.I.D. Mission and Bureaus:

...working as collaboratively and closely as feasible with less developed countries to incorporate evaluative elements into the design of new projects/programs whether grant or loan and whether technical or capital assistance, as to facilitate periodic on-going or post-project evaluation..."

The policy states further:

"...Missions and Bureaus should insure that evaluations are objective and candid and as searching and penetrating as warranted by the project's size or importance or duration. The objective is not to place blame but rather (1) to ascertain the project's developmental impact and continuing relevance to (possibly changing) country goals, (2) to improve Mission performance and programs, including budget and other routine management decisions, and (3) to contribute to future project/program selection and strategy in other Missions as well as in the one directly affected. In the latter connection, evaluation reports should contain information useful for similar activities planned elsewhere..."

In sum, A.I.D. policy requires:

- That new project proposals review evaluations and lessons learned from prior experiences in other, similar projects and settings.
- The incorporation of evaluative elements in project design.
- The participation by senior A.I.D. and host country management in project evaluation to the maximum extent possible. Where possible A.I.D. encourages cooperating governments to conduct these evaluations reserving to A.I.D. the right to supplement data to meet any A.I.D. standards not covered in such evaluations.
- The periodic evaluations of on-going projects scheduled at least annually to support key program decisions.

-- Evaluation efforts as searching and penetrating as warranted by the size, importance, complexity, and duration of a project.

-- High standards of objectivity and candor.

-- Evaluation reports of findings and decisions, and useful information for similar activities planned elsewhere.

-- The use of evaluation as a fully integrated instrument of program policy and management.

-- The use of evaluation findings to make decisions in order to improve the quality, effectiveness and impact of development assistance.

A.I.D. imposes these requirements on itself. However, when a host country, or a private voluntary organization accepts A.I.D. support in order to carry on development activities, -- it must also accept responsibility for meeting A.I.D.'s standards and requirements for project design and evaluation.

#### A. THE MANDATE FOR EVALUATION

Some of these policies stem directly from the mandate to A.I.D. from Congress, as set forth in various sections of the Foreign Assistance Act of 1961 as amended (FA ACT).

Section 102b (4) of the FA Act states that:

"...the President shall assess the commitment and progress of countries in moving toward the objectives and purposes... (of the FA Act)"

Section 125 of the FA Act directs the A.I.D. Administrator:

"to improve the assessment and evaluation of the programs and projects carried out... (by the Agency for International Development)"

Section 621A of that A.I.D. requires that:

"...a management system be established that includes: the definition of objectives and programs

for United States foreign assistance: the development of quantitative indicators of progress toward these objectives; the orderly consideration of alternative means for accomplishing such objectives; and the adoption of methods for comparing actual results of programs and projects with those anticipated when they were undertaken. The system should provide information to the Agency and to Congress that relates Agency resources, expenditures, and budget projection to such objectives and results in order to assist in the evaluation of program performance, the review of budgetary requests, and the setting of program priorities."

Section 634 of the FA Act requires A.I.D. to prepare an annual report to Congress so that:

"...The Congress and the American people may be better and more currently informed regarding U.S. development policy including the amounts and effectiveness of assistance provided by the U.S. government to developing countries..."

The report is to include, among other things:

"...a comprehensive and coordinated review of all United States policies and programs having a major impact...on the development of developing countries..."

"...an assessment of the impact of such policies and programs on the well-being of the poor majority in developing countries..."

"...an assessment of the impact of such policies and programs on economic conditions in the United States..."

Within the executive branch of the U.S. Government the Office of Management and Budget (OMB) has articulated evaluation policy in Circular 117, which states:

"All agencies of the Executive Branch of the Federal Government will assess the effectiveness of their

programs and efficiency with which they are conducted, and see improvements on a continuing basis so that Federal management will reflect the most progressive practices of both public and business management, and result in improved service to the public..."

B. DEFINITIONS OF EVALUATION (as used in A.I.D.)

EVALUATION is the retrospective measurement and analysis of the results of a development policy, program or project. Evaluation attempts to determine what happened, and why. It is a process for measuring change--however brought about--and comparing the change against some standard, and then drawing inferences from the comparison. When this process is applied to a project, the term Project Evaluation is used. A development project for A.I.D. is the total discrete endeavor to achieve a finite result directly related to a discrete development problem by providing a mix of personnel, equipment, training and/or capital funds. A project may also be thought of more simply as an organized effort to bring about change. When the results of a program are assessed, the term Program Evaluation is used. The totality of A.I.D. efforts in a country is often called, "The program". But a program may also be a sector, a sub-sector or area of emphasis of a national economy large enough to encompass more than one development project evaluations and program evaluations, but usually refers to them under three general types of evaluations:

ROUTINE EVALUATIONS are done periodically during the life of a project according to an evaluation plan established in the Project Paper. Evaluation plans may be changed during the life of a project but by and large they call for routine evaluations to be conducted by in-house A.I.D. personnel in collaboration with host country personnel. The routine evaluations rely fairly heavily on the use of a logical framework matrix as the schema for the evaluation. They are intended to assure that benchmarks are met and results are forthcoming as expected. They should also reveal important unanticipated results and implementation problems. Care must be taken to preserve the distinction between monitoring and routine evaluations. In general, a routine evaluation should at the very least codify already extant monitoring data so that they can be brought into focus and used for management decisions. The report of a routine evaluation is usually contained in a Project Evaluation Summary (PES), for use in country and sometimes in A.I.D./Washington. The PES is eventually filed in the A.I.D./W Development Information Utilization Computer.

SPECIAL EVALUATIONS are done when some particular question needs to be answered for a project or a program, and which a routine evaluation would not be expected to uncover. It may use a

logframe as a guideline for what needs to be evaluated, but it is more likely to delve more deeply into certain issues which require resolution. Hence, special evaluations are sometimes called "in-depth" studies. Issues, in A.I.D., may be policy questions, or they may be questions about which no data are available. Issues may also be questions on which data exist, but a difference of interpretation of what the data mean may necessitate a more intensive and exhaustive look before some decision is made. Special evaluations are usually conducted by a team of experts operating under a contract. The scope of work of the special evaluation is usually planned by the USAID Mission in conjunction with knowledgeable host-country representatives. The report of the Special Evaluation Team is usually filed with the USAID, the appropriate host country Ministry, the appropriate A.I.D./W bureau, and the A.I.D./W Development Information Utilization computer.

IMPACT EVALUATIONS ask the second order question: Now that the project or facets of it are complete, or the program has a number of completed projects, what is the net effect of these endeavors? The routine evaluation tells us that the bridge was built or the extension service established; the impact evaluation asks: what difference did it make in the lives of the target population? Many questions are subsumed in the general one among them: what socio-economic effects took place as a result of the project? Are project effects found beyond the original implementation area (spread effect)? Did the change endure (sustainability)? Were changes wrought by factors other than the project (alternative explanation)? Impact evaluations are almost always "ex post" evaluations--that is, they are done after the project has been completed. They have to date usually been conducted by in-house A.I.D. personnel with the cooperation of host country personnel. They are reported in impact evaluation reports.

In academic circles, evaluations are usually called formative or summative. FORMATIVE EVALUATION describes a process in which an evaluative analysis of what happened and why it is used to guide the design and implementation of a program or project during its early stages. It is used when the project manager is not sure about the appropriateness of the strategy for achieving the purpose. In such circumstances, where the project is still being shaped or formed, evaluation is conducted periodically as a process of learning in order to permit project managers to gain a better understanding of the problem and of the project as a way of resolving it. Routine evaluations in A.I.D. are a kind of formative evaluation.

SUMMATIVE EVALUATION as practiced in academia is done when the project is near its end or has been completed. Summative evaluation attempts to "sum" things up at the end and usually measures the impact of the project on some program, sector or economy to

which it was to have contributed. Summative evaluation is also sometimes called *ex post* evaluation or *post hoc* evaluation. The impact evaluations being conducted by A.I.D. are a kind of summative evaluation.

EVALUATION RESEARCH is the measurement of induced change and the search for causality through the use of social science research methods. The results of evaluation research are intended to be repeatable and are based upon empirical evidence. The more rigorous the particular design of the study; the more confidence that can be placed in its findings.

Other evaluation techniques exist which place more weight upon "expert" opinion and less upon objective data and analysis. These include case histories which are primarily descriptive rather than explanatory. They are usually narrative summaries of a single project, and as such, can support neither extrapolations nor generalizations to other cases or situations. They may be particular situation assessments by experts whose judgments may have to suffice where empirical facts are not available. This type of assessment is to be avoided. A.I.D. must place its strongest emphasis on evaluation methods which produce evidence on which defensible and sound decisions may be made.

#### SOME THINGS WHICH EVALUATION IS NOT:

Evaluation is sometimes confused with monitoring. Monitoring is not evaluation. It is a day-to-day procedure used by a project manager to check on whether the intended resources, activities, and services are in conformance with the project plan. In logical framework terminology, the concern of monitoring is with the activities related to converting of inputs to outputs.

Sometimes evaluations are confused with audits. Audits are not evaluations. They are examinations and reports primarily of accounts or other financial records. They may also check into project procedures to determine whether these procedures are in conformity with rules, regulations, or law.

A feasibility study or an appraisal conducted prior to a project's approval to see if it might be viable (i.e. worth investing in)--is sometimes called an evaluation by the World Bank and other organizations. It is an evaluation, of course, but a prospective evaluation about the future--not a retrospective one about the past. A.I.D. reserves the word evaluation for the "looking back" aspect of analysis of what happened and why.

Still another kind of "evaluation" sometimes confused with project or program evaluation is the "Contractor Performance Evaluation Report". It is not project or program evaluation. It is a rating prepared by a project manager and reflecting his or her judgment about how well the contractor carried out the scope of work in the contract. It is completed on Form AID 1420-43 (3-74)

or Reports Control Symbol U-1423/1. See AID Handbook #14 "Procurement Regulations" (41 CFR) for further information.

### PRINCIPLES OF EVALUATION IN A.I.D.

In A.I.D., construction of a "logical framework" with its built-in evaluative elements is used as the key in both designing and evaluating projects. This logical framework, or, for short, "logframe":

-- defines project INPUTS or the resources going into the project in terms of money, commodities, technical advice, and training;

-- defines the targets of the OUTPUTS, the PURPOSE, and the higher GOAL in concise terms;

-- outlines the rationale of the project by articulating the causal linkages between the inputs and outputs; the outputs and purpose; the purpose and goal;

-- specifies the indicators or measures of those targets, and the sources of data for those measures to permit the determination of the amount of progress in the project;

-- makes explicit certain assumptions on which the project's success is based, or certain uncertainties or external factors which have an influence on the project's success or failure, but which are not within the control of the project management.

The structure of the logical framework is shown on the next page. The blank form is AID 1020-28 (1-73). The matrix has sixteen boxes divided into four horizontal rows (Goal, Purpose, Outputs, and Inputs) and four vertical columns (Narrative, Indicators, Means of Verification, and Assumptions or External Factors). Modifications of this form can be made to suit local circumstances.

The logical framework system embodies the concept of causality. This causality is basic to the strategy of the project. The interrelation of facts in a project or sequence of events is seen as inevitable or predictable. If the appropriate causes are introduced, the desired effects will be brought about. The appropriate causes are the Inputs; the desired effects are the Outputs. The outputs in turn become the "cause" of the next desired result--the bringing about of the Purpose. The purpose is then expected to contribute substantially to the bringing about of the higher Goal--much as if the purpose were now the "cause" and the Goal the "effect". In other words, the strategy of the project from inputs to outputs to purpose to goal is essentially a causal sequence. While there are only four levels (I-O-P-G) in the logframe, projects may have as many extra steps in the causal sequence as are thought to be logically necessary. Logic here,

**PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

Life of Project: \_\_\_\_\_  
 From FY \_\_\_\_\_ to FY \_\_\_\_\_  
 Total U. S. Funding \_\_\_\_\_  
 Date Prepared: \_\_\_\_\_

Project Title & Number: \_\_\_\_\_

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes: (A-1)	Measures of Goal Achievement: (A-2)	(A-3)	Assumptions for achieving goal targets: (A-4)
Project Purpose: (B-1)	Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)	(B-3)	Assumptions for achieving purpose: (B-4)
Project Outputs: (C-1)	Magnitude of Outputs: (C-2)	(C-3)	Assumptions for achieving outputs: (C-4)
Project Inputs: (D-1)	Implementation Target (Type and Quantity) (D-2)	(D-3)	Assumptions for providing inputs: (D-4)

17

incidentally, does not mean syllogistic logic, but the logic of cause and effect.

Because the logical framework contains the plan of what will happen in the future, it may be considered a forecast of the future. When the time comes to make an evaluation, a comparison of what actually did occur in the project is made against the logframe's plan of what was expected to occur. In regular evaluations using the logframe method, the first question to be answered is "What Happened?". If what actually happened does not jibe with the logframe, the next question, "Why?" must be answered.

How do we determine whether what happened in a project does coincide with the logframe's predictions? The logframe's Column 1 gives what the project designers expected to happen. Column 2 gives indicators specifying what the events would be, when they would occur, and what their magnitude would be. A fairly straightforward comparison is then made between the predictions contained in the logframe and the actual occurrences in the project as gleaned from some project record, or developed in the evaluation. Certain changes which were not expected to occur also will be found, and predicted changes may not occur. For these unplanned events, a separate record is needed since they are not included in the logframe's prediction. By measuring progress as the logframe predicted, and by assessing unplanned change, we can say what happened.

In a sense then, the principle underlying the logframe method of evaluation is a test of how good the prediction was about the future.

Another way of looking at it is that the logframe or plan for the project was not only a forecast about the future, but was also a set of unproved theories about what would happen. Unproven theories, because of their uncertainties, are hypotheses. The logframe evaluation process is the proving or testing of those hypotheses that have been built into the project strategy:

If Inputs, then Outputs

If Outputs, then Purpose.

These are hypotheses under the conditions outlined in the logframe (i.e. all the inputs have to go in--and in the correct "mix"--or all the outputs will not come out). At evaluation time, these hypotheses are tested by checking:

-- did the outputs come out? at the time predicted? in the magnitude forecast earlier?

-- was the purpose achieved? at the time predicted? in the magnitude forecast earlier?

After we have answered the question, "What Happened?", the next question, "Why?" can be at least partially answered if we seek the reasons certain events did or did not occur by using the logframe's built-in causal sequences. The linked hypotheses in column 1 of the logframe from inputs to outputs to purpose to goal are a sequence of planned causes and their effects. Also, while column 4 of the logframe has the assumptions or external factors which are outside the control of project management they were placed there because they were believed to be factors which were necessary, albeit not sufficient, factors for the next higher level of the hierarchy to occur. So columns 1 and 4 have causes that must be checked to see if they did or did not occur as planned.

Still a third way of viewing the logframe process is that project design is the setting of end-objectives in advance. Evaluation is the process whereby a check is made to see whether the end-objective that was set was actually attained. The logframe method of project design and evaluation then is a "goal-attainment" method.

15

## CHAPTER II

### THE PROJECT DESIGN AND EVALUATION

#### 1. THE LOGICAL APPROACH TO DESIGN:

There are at least seven factors that must be considered in the formulation of a project:

- the project identification through sectoral and/or program analysis;
- the consideration of alternatives according to various criteria;
- the writing and approval of a Project Identification Document with a logical framework as one of the annexes;
- the project authorization;
- the project agreement;
- the project implementation letter.

Since these considerations as well as Means/End Analysis are discussed in detail in AID Handbook No. 3, neither will be dealt with here. This chapter will deal with AID's primary evaluation system--the logical framework method.

Unless the intentions of the project designers are clear and known to the evaluators, no evaluation can be conducted. Once a problem has been identified, and a project has been decided upon, which might resolve the problem, design of the project itself may be done any number of different ways. It is recommended that a logframe be sketched in roughly as a first step. This usually means drafting a column 1 and a column 4 to make explicit what the project strategy will be. The column 1 will lay out the manageable causal sequence (from inputs to outputs to purpose to goal). (NOTE: Column 1 is sometimes called the GPOI--an acronym for inputs-outputs-purpose-goal). The fourth column called External Factors or Assumptions, will specify other necessary causal conditions which are outside the control of the project manager. While drafting the first column of the logframe, the linkages between inputs outputs and so forth need to be tested for the soundness of the logic. A good way to "test" the logic in a logframe is to see whether the answers to the questions "WHY" and "HOW" are rational answers. As you read up the first column in a logframe and raise the question WHY?--the most reasonable answer

should be at the level just above the level at which the question is raised. For example:

Question: Why do we put those inputs in?

Answer: In order to get those outputs out.

Question: Why do we want those outputs?

Answer: In order to achieve that purpose as stated in the logframe.

Question: Why do we want to achieve that purpose?

Answer: In order to attain the goal.

Note that the continual raising of the question "WHY" should drive one up the first column. The raising of that question "WHY" is essentially raising of the question of what end (or objective, or aim, or target) is being sought. Similarly, by raising the question "HOW"--the question of the MEANS or methods whereby the end, or objective, or aim or target is reached, is being tested. The question "HOW" will be found at the level just below the level at which the question is raised:

Question: How do we attain the goal?

Answer: By achieving the purpose.

Question: How do we achieve the purpose?

Answer: By getting the outputs out.

Question: How do we get those outputs out?

Answer: By putting these inputs in.

These questions are couched in very general terms. For a logframe for a specific project, the questions How and Why must be raised for the particular statement in column 1 (the Narrative) of the logframe. Note that How and Why are the questions raised in a Means/End analysis (see Chapter 1, AID Handbook No. 3, "Project Assistance").

Once the narrative column has become clear, and once the linkages between inputs and outputs and purpose seem sound--it is time to think ahead towards evaluation in the future. This means building in the evaluative elements by:

-- planning baseline measures

- 11 -

-- devising indicators in column 2 for the targets written into the various levels in column 1

-- completing column 3 (Means of Verification) by arranging for the collection of necessary data.

## 2. BUILDING EVALUATIVE ELEMENTS INTO DESIGN:

During the planning stage for a project, the designers will state the end-objective of the project as the Purpose. The indicators of whether the Purpose will have been achieved by the termination date of the project are called "EOPS" indicators, because they measure the End-of-Project-Status. To see if any change occurred, those EOPS indicators must be compared with what the project looked like at an earlier date--preferably at the beginning of the project.

The measures taken at the beginning of a project are called BOPS (Beginning-of-Project-Status) or baseline measures. They establish what the project looks like before any change has been brought about. Since they will be used later in as standards for comparison with EOPS, they frequently use the same measures (or indicators) which will be used at the end of the project--to see if the purpose were achieved.

### A. The Collection of Baseline Data:

Once a project has been approved, and as soon as possible after implementation begins, it will be important to take baseline measures. One of the most frequent errors in project management in years past had been the failure to establish the "Beginning-of-Project-Status Conditions (BOPS). This failure made it almost impossible to conduct any rigorous evaluations at the appropriate time since the BOPS are the standard for comparison when End-of-Project-Status Conditions are known.

Once indicators have been formulated to show how achievement of the Purpose will be measured in the future, it should be an easy step to use the same EOPS indicators at the beginning to demonstrate what the magnitude of the measures are at this time (at the beginning of the project).

The reason it is not always an easy step is that there may be difficulties at the beginning of the project in the collection of the necessary data to back up the indicators. Column 3 (Means of Verifications) should be of some assistance here. The third column cites the most reasonable source of the data.

While there is no systematic nor scientifically "best" way of obtaining data, experience of many fields workers has shown that it

will be more productive and more economic, if data are sought in the following order:

-- Look for relevant data which are currently available from routine government reports, archives, records, newspapers, radio broadcasts, and so forth. Nothing new needs to be introduced to the culture. The evaluations can be based on existing information at little or not cost.

-- Seek data potentially available from information collected but not routinely reported. Here the current system has to be modified to realize the potential, but no new techniques and no new data collectors are required. Evaluations are based on data which are now available where they were not available before. Usually the system can be expanded to do this at relatively small cost.

-- Collect data through specially devised observations. The present system is augmented by specially trained observers (e.g., a resident villager, a person passing through, a person who is an outsider--but in residence. This requires some cost in training and maintenance, but evaluations may now be based on more detailed descriptions than would otherwise be provided by the existing system.

-- Collect data via observation of situations which have been artificially created. Sometimes, in order to observe people's reactions, it may be necessary to devise and introduce special situations or through specially prepared devices. Evaluations based on data generated in situations produced deliberately can be as valid as when the situations are spontaneously produced, but less confidence tend to be placed on them, since they suffer from the charge "not genuine".

However, this is the most commonly used means of gathering data. It is also to be noted that it is the least economical. Special situations (such as questionnaires, interviews, objective tests of aptitude; of ability; of knowledge; tests of opinion; attitude; or preference; projective tests, depth interviews, and manipulative experiments) may all be devised and tailored to the particular situation--but at some considerable cost. Further, people's reactions need to be interpreted by skilled observers who need to be specially trained in the use of the specially devised "instruments". Also, special techniques may be required to analyze and interpret the data.

In the collection of data, whether it be for baseline purposes, or for later measurement during an evaluation, it would be wise to have reference to one or more good guidelines on what to

do. AID recommends, "The Manager's Guide to Data Collection," produced by the Agency for International Development in Washington, D.C. 20523 in November 1979. This guide was intended to assist program and project managers who need data as a basis for decisions on design and implementation issues and for evaluative judgments. Part I deals with the manager's role in specifying information needs; costs considerations; how to determine whether a field data collection effort is required; how to prepare a scope of work; and selecting a study team. Part II deals with basic study design considerations; problems related to the quality of information; approaches to making a census, a sample survey, or a microstudy; and the problems associated with generating data and keeping records. Part III deals more specifically in defining populations and samples and discusses direct measurement, observational methods, and interrogation methods. There is a bibliography of 96 items.

#### B. Devising Indicators:

See Appendix G--Evaluation Problems for Which there are No Ready Answers for some ideas on how to convert units of measure to indicators. Indicators are explicit measures of results expected at a particular time. AIDs most stringent requirement for them is that they be objectively verifiable. Indicators may be quantitative or qualitative. Qualitative indicators are preferred since they deal with the essence or quality of behavioral change but are not always practical nor even possible. Some examples of qualitative indicators would be:

- working relationship among the personnel have improved
- mothers are participating more in family planning discussion
- students are focusing less on rote memory methods.

The determinants of whether indicators are quantitative or qualitative rests on whether number values may be assigned. In the above examples, perhaps some number could be assigned value to "working relationships improved," to "participating more" or to "focusing less?" If one did assign a number value, it might also be meaningless, conveying a spurious aura of accuracy since quantities tend to imply greater objectivity and comparability. (Note: In modern times, numerology not patriotism, might be the last refuge of a scoundrel.) Quantitative indicators should be developed when possible, but the temptation to bolster a weak hypothesis with dubious statistics must be resisted.

Indicators may be direct or indirect. Where it is not possible to measure the change directly, it may be necessary to use some surrogate or "proxy" indicator. This requires some plausible

correlation between the phenomenon not directly measurable, and some other event which is. For example, Americans tend to believe that people who drive a Cadillac or a Mercedes-Benz have more money than people who drive VWs. This does not always hold true, of course, but by and large, counting the number of expensive cars parked in a neighborhood will give a proxy measure of the level of income of that neighborhood. Similarly, in certain african villages where the people live in huts with thatched roofs, when the villagers' incomes rise, they remove the roof made of grass and replace it with one made of corrugated iron. So the number of "tin roofs" in a village might be a proxy indicator of income. It might also indicate a fall in the price of roofing material, or a rise in the price of thatch or any competing item in the shopping basket! Alternative explanations must always be considered. Other proxies for income might be change in savings; change in local retail sales; change in amount of taxes collected, etc. For measuring increased agricultural production, the direct indicator of the total metric tons of the major crops is most frequently used. Where this is not obtainable, however, substitutes have been made which "reflect" increased agricultural production. For example:

- change in free market prices
- shipments of agricultural products
- evidence of increased storage
- evidence of increased consumption

Progress indicators are used to demonstrate that change has occurred by showing two different magnitudes at two different times:

An increase from 60 metric tons of rice harvested at the end of 1980 to 72 metric tons of rice at the end of 1985...

Sometimes a single indicator cannot give a completely comprehensive picture of the different facets of change which may be brought about. In which case, it may be important to use a "multiple" indicator--or one which uses a measure for each aspect of the change. The changes in a vocational training institution, for example, may be expressed in the number of graduates; in the salary level of the graduates; in the employability of the graduates; in the quality of the faculty (no. of degrees; no. of publications; level of salaries paid); in the amount of money expended for replacement of old equipment.

All indicators are an attempt to clarify and make more specific the targets that have been written in narrative form in column 1. The particular verb used will be exceedingly important, therefore, in making explicit precisely what is meant in column 1.

To assure clarity and make evaluation measure possible, it becomes very important to avoid terms that seem to be understood readily-- but which actually need further refinement themselves before they are completely understood. Avoid "fuzzy" terms such as:

Improved	Enhance
Reinforce	Upgrade
Strengthen	Promote
Augment	Assist
Expand	Develop
Coordinate	Stimulate

Adjectives which seem clear but which really are not, are words like:

Adequate	Sufficient
Enough	Natural
Viable	More than (or less than)

If properly formulated and used, indicators can establish that change has occurred and can indicate the character, the direction, and sometimes the rate of change. They can also permit comparison of the actual change against the expected change. Indicators can be harmful if wrongly applied. They might force the setting of targets more precisely than perhaps they could (or should) be set--given the uncertainties of the cooperating country situation. They may require quantitative measurements when much of the project's concern should be with qualitative improvements in human knowledge and skill, or institutional capacity. They may also subject the project's efforts to comparison with other projects and programs which are not comparable because of differences in cultural, economic, political, or other characteristics.

A check list of factors to be considered when building indicators and means of verification into a logframe during the project design stage, is given on the next page.

**CHECKLIST OF FACTORS TO BE CONSIDERED REGARDING  
INDICATORS AND MEANS OF VERIFICATION  
DURING THE PROJECT DESIGN STAGE**

PROJECT LEVEL	INDICATOR (Col. 2)	PLAUSIBLE?	INDEPENDENT?	OBJECTIVE?	TARGETED?	COMPREHENSIVE?	VERIFIABLE (Col. 3)
GOAL							
SUB-GOAL							
PURPOSE							
OUTPUTS							

Is the Indicator:

Plausible: A believable or genuine measure of the project level? Should vary with progress achievement, but not vary significantly with changes in unrelated factors.

Independent: Separate, discrete, and distinct from measures at other levels? No indicator may be used on two or more levels.

23

Objective: Impartial, tangible, or material? (as opposed to subjective). Could both a skeptic and an advocate of the project be expected to agree on the facts shown by the indicators?

Targetted: Explicit or specific including the amount, the time, and if appropriate the target audience, or place?

Comprehensive: Are all major aspects or facts of the subject measured so that no additional indicators are needed?

Verifiable: Are the information sources listed--reasonable, available, or accessible? Are additional special studies, or surveys required? If so, are funds and skilled personnel available to conduct them?

How the Logframe Deals with Uncertainties.

There are several different sources of uncertainty in the hypotheses built into the logframe. Among these are:

- faulty logic
- lack of proportionality
- ineffective management
- uncontrollable external factors

It is particularly important that the logic in column 1 be sound. The evaluation will be based on the possibility of prediction of the future. If the cause-and-effect logic is not sound, the inevitability of the project's performance will not come about--and the evaluation will not be possible; or it (the evaluation) will demonstrate that the project is failing. For example, faulty logic leads to doubtful causation such as:

- If we build roads, then we will have more agricultural production
- If we provide electricity, then industry will develop
- If we provide contraceptive, then birth rates will be lower
- If we build more schools, then the country will become more democratic

The lack of proportionality has to do with whether the inputs are adequate to produce the outputs. If they are not, all the outputs will not be produced. During evaluation, all that will be demonstrated is that the outputs did not come out. In actuality, the failure will have been due to the cause (the insufficiency of inputs).

There is little excuse for ineffective management as a source of uncertainty. In projects where there are many people and organizations involved, there is bound to be some slippage. Nevertheless, the conversion of inputs to outputs should be manageable.

There are numerous external factors which impinge on a project and either help it or hinder it. If a project is to succeed, these outside factors cannot hinder, but must remain neutral or must help the progress of the project. Projects address a limited number of the many factors affecting development. These include the social, the economic, the institutional, the technical. Some of these may be brought under control. Some are not controllable--and their outcome are, therefore, uncertain. To deal with this in project

design and in evaluation, the logframe has a column 4 "Assumptions"--which is an attempt to identify and clarify the uncertainty in which the project will operate. An "Assumption" in an AID logframe, is an hypothesis, or supposition about the behavior of external factors which can influence the project. It is important to the project's success, but is outside the scope of the project design, and usually beyond the influence or control of project management.

There are usually different assumptions for each level (Goal, Purpose, Outputs, Inputs) of the project:

#### GOAL - Important Assumptions

Achievement of the goal (and indeed the project purpose and outputs as well) is based on the expectation that certain other events or actions, outside the scope of the project will occur. These external factors need to be stated as important assumptions regarding goal achievement, and evaluated periodically to assure their continued validity. "Increasing agricultural productivity", for example, may be a realistic (though vaguely stated) goal. However, achievement of that goal may depend on motivating farm labor force; establishing marketing regulations, distribution centers, and national price structures for agricultural commodities, which place on assumptions about such external factors depends upon familiarity with the cooperating country, knowledge of the sector in which the project is being designed, prior experience, and performance by the host country and other donors on similar projects.

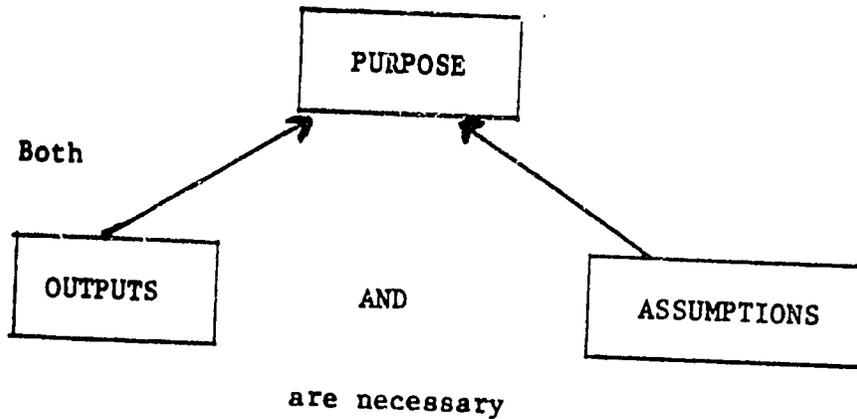
A project design is only as sound as its rationale and assumptions. As the project is implemented and these linkages tested, confidence in the purpose to goal rationale should. If it does not, project management attention should be focussed on the assumptions.

#### PURPOSE - Important Assumptions

An assumption describes a situation or a condition which must be assumed to exist if, and when the project is to succeed, but over which the project management team may have little or no control. Assumptions identified in this manner may provide the impetus for formulating other, complementary projects, or establishing "Conditions Precedent" to full approval of the project. If many critical factors are unearthed in designing the project which are beyond the project manager's control the feasibility of implementing the project may be questionable.

This in turn, rests on the basic premise that each level in the hierarchy is not only necessary, but also sufficient to enable the next higher level to be achieved. Since each linkage is subject to external factors beyond the control of the project's management, each link must be examined to assure that the activities at a given level (e.g., outputs) are necessary and sufficient to achieve the next level (e.g., purpose). If not the additional necessary assumptions must be identified. Thus:

To Achieve the



OUTPUTS - Important Assumptions

Since outputs are usually categories of new items (roads, buildings, equipment, trained personnel, organizations, etc.), upgraded items, or demonstrations of improved methods of doing things (use of fertilizer with high yielding variety seeds) for example, assumptions should be linked to the host country's continued use of such outputs an acceptable level and quality after AID's input to the project has terminated. Thus a critical assumption with regard to essential project personnel (usually hired on a temporary basis) may be that the government will establish appropriate positions, and will budget funds to payroll them. For personnel who have received specialized training under the project, the assumption might be that the government will utilize them appropriately in the skill for which they were trained. For physical outputs, such as buildings, roads, equipment, etc., a critical assumption might be that the government will budget maintenance funds or make other appropriate arrangements (such as hire additional staff, or let contracts) to ensure that they continue to operate as intended.

INPUTS - Important Assumptions

At the input level, the major critical assumption is that the inputs will be available in the quantities programmed, in a timely manner. Project designers may also use this box to record "Conditions Precedent" and "Beginning of Project" baseline status conditions.

Some Examples of Assumptions:

	<u>Narrative (column 1)</u>	<u>Assumptions (column 4)</u>
GOAL:	To increase the small farmers' income	1. Transport will be available 2. Storage will be available 3. Market system will function 4. Price will remain stable
	*****	*****
PURPOSE:	To increase the yield per hectare	1. Fertilizer will be applied correctly 2. Water supply will be adequate
	*****	*****
OUTPUTS:	1. Farmers motivated to use fertilizer	Sales of additional crop which results from fertilizer use will more than offset cost of fertilizer.

Output-to-Purpose Assumptions usually deal with external factors like:

- Related projects will succeed
- Incentives for change exist
- The market system is functioning properly
- The host country policy is committed (to the project)
- Social disruptions will not occur

(Note: "Acts of God" such as earthquakes, floods, monsoons, etc., or "good weather", or "good growing conditions" are not usually listed in column 4.)

Purpose-to-Goal Assumptions usually refer to such external factors as:

- Political stability
- Inflation not too severe
- Equitable land tenure system

Since these external factors are part of the "cause" in getting from one level to the next, they must be checked during evaluation when something has failed and you are searching for causes in answer to the question "Why?". To check items in column 4, the evaluator must determine whether the event listed did or did not occur. If it did not occur, no cause existed to bring about the next higher level. This checking of the assumptions or external factor in column 4 during evaluation is sometimes called "Validating the Assumptions".

## CHAPTER III

### HOW TO MAKE A ROUTINE EVALUATION USING THE LOGICAL FRAMEWORK METHOD

There are several essential things that must be done prior to making a routine evaluation using a logical framework matrix (a logframe). This chapter therefore, is divided into short sections explaining:

- \* how to make an evaluation plan for a project,
- \* how to make a scope of work for an evaluation,
- \* how to do a routine evaluation using the logframe.

#### A. HOW TO MAKE AN EVALUATION PLAN

When writing a Project Paper for A.I.D., one of the components will be the plan for making one or more evaluations during the life of the project once it has been approved.

Do not confuse an evaluation plan with an evaluation schedule. An evaluation schedule is made by the Mission Evaluation Officer and sent to A.I.D./W to show how many evaluations on how many different projects are slated to be conducted over the course of the next twelve months.

Do not confuse an evaluation plan with a scope of work for an evaluation. An evaluation plan is a rough and very general draft of a plan made during a project's design stage and prior to a project's approval. A scope of work for an evaluation is a much more specific and detailed write-up of what is to be done; how; by whom; when; where; why; etc.

A simple chart to help you go through the steps of making an outline for an evaluation plan is given on the next page. It is not an A.I.D. form; it is simply a device to help you raise the right questions.

The evaluation plan is written at such an early stage--before the project is approved--that it cannot be very detailed and it will obviously have to be changed prior to its being implemented. Nevertheless, every effort should be made to think through the evaluation(s) for the future--including budgeting for the collection of baseline data and for the costs of future evaluations and the personnel to conduct them. It is A.I.D. policy to provide whatever assistance may be needed to assure that the necessary money and talent are available in the project to carry out the evaluation plan. To reinforce that, A.I.D. strongly encourages that the evaluation plan be summarized and incorporated in the Project Agreement.

EVALUATION PLANNING OUTLINE

<p>Arrangements to obtain baseline data</p>				
<p>How Many <u>Time of Evaluations</u> &amp; When? (Month &amp; Year)</p>	1	2	3	4
<p>Why? <u>Reason for Evaluation:</u> (Design suitable? Any policy difficulties? Inputs adequate? Inputs on schedule? Outputs being achieved? Implementation problems? Progress toward purpose? Goal impact? Special questions? Major issues to be considered?)</p>				
<p>How? <u>Methods to be used:</u> (Records search? Interviews? Site inspection? Observation? Special survey? Experimental design? etc.)</p>				
<p>Who? <u>Personnel:</u> (Who is to plan &amp; to conduct the evaluation? Host country staff? Donor project staff? Others? e.g. outside consultants? contractors?)</p>				
<p>How Much? <u>Costs:</u> (Estimated costs beyond salaries of in-house personnel)</p>				

31

**STEP 1 - MAKING ARRANGEMENTS FOR A BASELINE**

a. Baseline data represent the milieu into which the project enters before the project has had time to produce effects. They enable the evaluator to make a comparison at some later date between measures taken the same way, on the same thing, at two different points in time. The baseline measures (sometimes called the Beginning-of-Project Status or BOPS) must be taken just before the project starts, or early on after the project has started. They are the data needed for the indicators at the output or purpose levels. Remember that the purpose indicators in a project logframe are the End-of-Project Status conditions or EOPS--so that the comparison made for evaluation will be the difference between EOPS and BOPS.

b. Obtaining baseline data may cost some money, and therefore the costs related to BOPS must be included in the project budget.

**STEP 2 - DECIDING HOW MANY EVALUATIONS TO DO AND WHEN**

a. Every time an evaluation is conducted, it costs money, time and effort. Unnecessary evaluations are thus to be avoided. On the other hand, if no evaluations are conducted, money will be saved, but little will be known about the project. The golden mean must be covered between not having any, and not having too many.

b. Use the logframe and a network schedule of the project to help decide what the critical events are in the project, and plan evaluations around them. When will it be useful to know the status of a given project that will not be revealed by routine project monitoring? Then is a good time for an evaluation.

c. Relate the events in the project to management needs; to what is happening to the people whom the project is serving; to costs. Determine (from the logframe) when certain output or purpose indicators will be showing, so you have an idea when the time will be in the future when evidence will be available. Remember to take into account relevant things like religious holidays, or rainy seasons, or the number of growing seasons, or when the harvest occurs, or elections, or etc.

**STEP 3 - DECIDING WHAT QUESTIONS TO STUDY (OR WHAT HYPOTHESES TO TEST)**

a. Why do you want to do an evaluation anyway? Do you want to know whether the outputs are coming out? whether progress is being made toward the purpose? are there special questions you need to know about?

b. Remember that there are built-in hypotheses in the logframe (if the outputs come out, then the purpose will be achieved). Those kinds of hypotheses are related to the logic in column 1 of the logframe.

c. Remember that there are hypotheses in the indicators in column 2 of the logframe. The indicator statements need only to be couched in terms that make an hypothesis. (e.g.:

<u>Indicator</u>	<u>Hypothesis</u>
Inventory losses will be reduced to 0.5% of sales by 1987.	Inventory losses in 1987 have been reduced to 0.5% of sales.
(Baseline in 1980 shows that inventory losses are about 10% of sales)	(Test this hypothesis in 1987 by measuring the EOPS inventory losses in terms of the sales and compare to the BOPS of 10%)

**STEP 4 - DECIDING WHAT METHODS SHOULD BE USED**

a. Methods used need to be adapted to the kind of data to be gathered. If information on the small farmers' income is necessary, then interviews, site inspections, observations may get you nowhere. One will need a small sample and will have to use some proxy indicator that will not be small farmers' income but something closely related (e.g. rural merchants' sales).

b. Decide whether you need a special survey or questionnaire. If so, call in an expert to help you plan them and to advise on costs.

**STEP 5 - PLANNING WHICH PERSONNEL TO USE**

a. Decide who is to plan; who is to conduct; who is to gather data; who is to analyze the data, who is to write the report, etc.

b. Remember that A.I.D. encourages a collaborative style and that host country personnel should play a large part in all aspects of an evaluation.

**STEP 6 - ESTIMATING COSTS**

a. Take into account all costs and budget for them (travel, per diem, materials, costs of training interviewers, data processing, subcontract costs, overhead, etc.)

NOTE: None of the above steps is in any particular order or sequence. They are all interrelated--i.e. the raising of a question in steps 3, 4, 5, or 6 may force you to go back and re-think the answer to step 2. It is more or less a method of "successive approximations".

**B. HOW TO MAKE A SCOPE OF WORK FOR AN EVALUATION**

The Evaluation Plan conceived at the time the Project Paper was being written, gave only general notions about the evaluation(s) to be conducted at a later date. The Scope or Work raises the same questions considered for the Evaluation Plan (When? Where? What's to be done? by Whom? Why? etc.?)--but in far greater detail. For example:

Who will do the planning of the evaluation?

Who will conduct it?

Who will analyze the data?

Who will write the report?

What expertise will be required on the evaluation team?

Where will they travel to? (itinerary; dates; means of travel)

When will they travel? (dates; arrangements for activities and people at other end)

What materials will be needed? (office equipment? questionnaires?)

What data will be gathered? (interviews? samples? interpreters or translators necessary? Will training of people with language facility be necessary? data collectors? data processors? etc.?)

What hypotheses are to be tested? (What, specifically, are you trying to find out?)

What situations are to be observed? (sites, personnel, etc.)

How many copies of the evaluation report are to be produced?  
(to whom will they be distributed? by what date?)

How much will it cost? (dollars? local currency? salaries?  
per diem? domestic travel? international travel? vehicle rental?  
office space? office equipment? interpreter services? housing?  
insurance? data collection services? processing? analysis? use  
of computer? printing? typing? xeroxing? etc.?)

All of these questions and more have to be answered beforehand and in great specificity of detail. The statement of "Scope of Work" that spells all of this out is then, the primary document that gives clarification and understanding to all parties concerned. Whoever is developing a written scope of work--whether it is to be used for a contract with an outside organization--or is simply a statement of the work to be done by an in-house evaluation team--the language needs to be clear and concise so that it can be understood by everyone. Words which have multiple meanings, are too generic, too "fuzzy", or are so narrow that only a limited number of people would understand them should be avoided. The statement of the scope of work should leave no question as the intent of all parties involved.

Accentuate the most important elements and convey to the reader precisely what must be done. State the objective of the evaluation and then enumerate the specific work or services people must perform in order to achieve that objective.

A.I.D.'s instrument for conveying the scope of work is the PIO/T. Should a contract or purchase order be necessary to obtain the technical services of an outside team, a carefully written Scope of Work for the evaluation will have to be incorporated into a Project Implementation Order for Technical Services (PIO/T). This must be done with sufficient lead time to enable the Contracting Office to draw up the necessary documents to complete arrangements on time (about four months if it is to be a "competitive" contract). The PIO/T tells the contracting office what is to be included in the request for proposals and the contract. When writing in the space provided in the blocks of a PIO/T, do not feel constrained if the space is too small. Be as detailed and explicit as possible and not inhibited by the space provided on the PIO/T form. It is better to provide too much information than not enough. Use attachments or continuation sheets if necessary. This is encouraged and expected by contracting officers. They would rather you be clear than encounter problems later on. A frequent omission in PIO/Ts which can have a disastrous effect is the failure to state any particular language requirement. It is also

very important that the logistic support which is to be provided be enumerated. This helps a contract officer fix the prices of proposals more realistically and it reduces subsequent contract changes or morale problems if conditions actually encountered do not coincide with what was expected. The expertise of the technicians required, their level of proficiency, and the estimated durations of their services should all be specified whenever possible. This gives outside organizations an idea of the magnitude of the job, and enables them to determine whether they are qualified to make a bid. Also the reports to be submitted should be specified, including the format, style, number of copies and addressees to whom the reports will be distributed. It is important that report due-dates be keyed to specific events in the evaluation, so that a management tool for control of the evaluation team's performance is available.

The more able you are at defining the constraints to be imposed on the evaluation team (contract or in-house); the better you are able to direct his or her effort toward the specific end-objective you have in mind. If, as sometimes happens, you don't want to direct the "how" of the evaluation, but instead wish to give the team some latitude about developing the means of accomplishment, it is essential that definition of the end-objective (the "why") be given added emphasis so that the team knows exactly where it should be headed.

In drafting statements of the scope of work for an evaluation, the writer should provide the team with adequate background information regarding WHY the services are needed and describing WHAT, if anything, has been tried before. In addition, the writer must indicate HOW the team should coordinate with A.I.D. and WHAT the respective roles and obligations are of the various interested parties (e.g. the host country, the team members, other donors, etc.) WHO will provide commodities? logistical support? travel approvals? WHAT financial and progress reports are needed? Will the team work under the technical direction of the project manager? or someone else? All of these questions should be answered so that there is no misunderstanding.

In summary, the Scope of Work for an evaluation is one of the most important elements of an evaluation and requires the particular attention of everyone involved to eliminate delays and misunderstanding before and after a team goes to the field or a contract is awarded. Extra time spent on the scope of work is often repaid many times over in reduced difficulties in the field, and in an improved final product.

26

C. HOW TO DO A ROUTINE EVALUATION USING THE LOGICAL FRAMEWORK METHOD

The logical framework matrix--the logframe--when filed in properly, is a concise picture of the strategy of a project's design. Column 1--on the left-hand side, shows the expectations of how the project will proceed from its start. It shows what resource INPUTS will be allocated and what OUTPUTS are expected to occur from the activities engaged in during the resource transfer. Further, it shows what purpose will be served if the outputs do come out as planned. The first column of the logframe thus gives a record of the sequence of events as they are planned to occur, and contains the logic of the project:

If Inputs, then Outputs;  
If Outputs, then Purpose;  
If Purpose then Goal.

These If-Then statements are essentially hypotheses about events which will occur in the future--under certain conditions. Taken together, as linked hypotheses, they are a causal sequence. The Inputs are the cause of the outputs (the effect); the Outputs next become the cause of the Purpose--which is the next effect, or result. Since this causal sequence is planned well before the project starts, and since we can never be certain that the planned sequence of events will unfold in just that way, column 1 is kindred to a forecast about the future. What remains to be done is to test or prove that prediction; to see whether what actually happened during the life of the project resembles closely or not what was forecast to happen.

In the logframe method of doing an evaluation, the first question to be answered is: WHAT HAPPENED? Since the logframe contains the plan of what will happen in the future, when the time comes to make the evaluation, all that needs to be done is to compare what happened with what was foretold to happen. If what actually happened does not jibe with the logframe, then the next question WHY? must be answered. This requires seeking the reasons certain events did or did not occur. Column 1 of the logframe (a means/end sequence) has planned causes and effects in the linked hypothesis from inputs to outputs to purpose to goal. Column 4 has assumptions and external factors which are also causes of later effects, but which are outside the control of the project manager. These must be checked for their occurrence as the logframe predicted.

The answer to the question WHY cannot be obtained by the logframe alone. We cannot fully answer the question WHY unless we also have so arranged the groups (by the establishment of a control

group or other design permitting attribution of causal factors)-- that we can foretell where change will occur and where not. When a specifically designed study will be necessary,--see Appendix E, "Analytic Designs for Evaluation Studies".

STEP 1 - CLARIFYING THE LOGFRAME

a. Examine the project strategy in column 1 from inputs to outputs to purpose to goal. Is it a logical sequence? This first column is essentially one pathway selected from a means/end analysis. The test for soundness in the linkages in column 1 comes from raising the questions "Why?" and "How?" The answer to Why? should drive you up the column. The answer to How? should drive you down.

b. Examine the context or environment in which the project exists. Have priorities changed? Is the need for the project still the same? Do the target beneficiaries still need (or want) the project purpose?

c. Examine the uncertainties or external factors in column 4. Are they still as valid as when the project was designed? Are there new assumptions that need to be recognized?

d. Tighten up the specificity of the measures (the indicators and means of verification in columns 2 and 3). See the checklist on the next page to test the clarity of the measures and the data to back them up.

STEP 2 - MEASURING PROGRESS

a. Check on the indicators in column 2 to see whether WHAT was to have happened, did happen...

.....whether it

happened at the TIME stated in the indicator...

.....whether it

happened in the MAGNITUDE stated in the indicator

(Note: the above is stated rather simply, but it takes quite a bit of doing to determine WHAT happened, WHEN it happened, and HOW MUCH of it happened.)

33

CHECKLIST FOR CLARIFYING INDICATORS AND MEANS OF VERIFICATION IN A LOGFRAME

1. Check the Indicators at all levels (outputs, purpose, goal):

a. Are they Plausible? Are the indicators believable, genuine measures of the target stated in column 1?

b. Are they Independent? Are the indicators separate, discrete, or distinct from measures at other levels in the logframe?

c. Are they Objective? Are the indicators impartial, tangible, or material? (as opposed to subjective)

d. Are they Targetted? Are the indicators explicit or specific about the target stated in column 1? Do they spell out the substance, the magnitude or amount, the time--and if appropriate--the place? Do they answer the questions "what", "how much", and "when"?

(Note: the above four tests spell out PIOT. They have nothing to do with a Project Implementation Order for Technical Services--but that's an easy way to remember to check for Plausibility, Independence, Objectivity, and Targetting.)

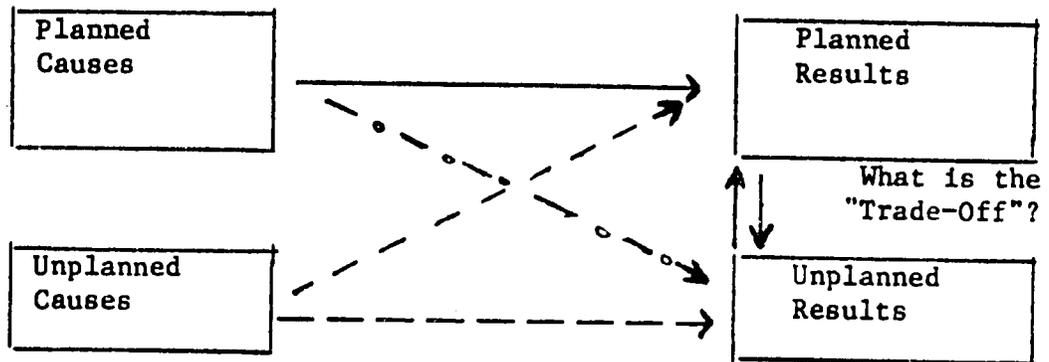
2. Check all indicators at all levels to determine if they are Comprehensive. Do they tap all the major aspects or facets of the targets mentioned in column 1? If not, additional indicators may be needed.

3. Check the means of verifying data (in column 3) for the Indicators in column 2. Are the data sources reasonable? available? accessible? and economical to obtain?

b. Figure out what the "trade-off" has been in the project. Did the unexpected results reinforce what the project was trying to bring about? Or did they hinder the results from occurring?

STEP 3 - ASSESSING UNPLANNED CHANGE

a. Unplanned change does not appear in the logframe. The project records will undoubtedly contain evidence of planned causes (inputs or outputs) that did not occur; or planned effects (outputs or purpose) that did not occur. Or some causes that were not planned in the first place may have come about; or some effects that were not expected may have occurred. Any of the following may have occurred, and you have to figure out which:



**STEP 4 - SEARCHING FOR CAUSES**

a. Columns 1 and 3 of the logframe have built-in causes that bring about the effects in the next higher level of the logframe. Check to see that all the inputs went in, and that they were in sufficient quantity or magnitude to bring about the outputs.

b. Check to see that all the outputs came out--and whether they were in sufficient quantity or magnitude to bring about the purpose.

c. Review a number of factors within the project to see if there was something there (or not there) that might have been a necessary condition to bring about the change sought?

(1) was the project design sound? logic between levels. O.K.? strong linkages between levels? (inputs to outputs; outputs to purpose)

(2) was the technology appropriate?

(3) was the management O.K.? (e.g., inputs getting to the correct place? on time? in the correct quantity?)

(4) were the assumptions made at the beginning relevant?

d. Review a number of factors outside the project:

(1) was there a shift in government priorities?

(2) was there some change in the level of economic activity in the country? (e.g., change in price structure? change in supply? demand?)

(3) was the target beneficiary group responding properly to incentives? ("properly" means as expected.)

(4) was the target beneficiary group's response to some innovation the response necessary for the project?

(5) Reflect a moment about the fact that the project is in a foreign country--different culture; maybe a different religion; different tribal loyalties; different values; etc.--is there something about the HUMAN FACTOR that perhaps should have been taken into account--and wasn't?

(6) If your project never had a control group, search for a possible plausible alternate explanation: could something other than the project have caused the change? If there were some persuasive alternative explanation or several possible ones--then the likelihood is lower that your project caused the change.

### STEP 5 - MAKING INFERENCES AND DRAWING CONCLUSIONS

a. Remember that you started out to answer the two questions: What Happened? and Why?

b. Pull together the evidence that is related to what happened.

(1) Compare the current data with the baseline data. Was there a difference? an increase? a decrease? did things stay the same? ...

c. Pull together the evidence about why things did or did not happen.

(1) Do not speculate. Stick to the facts.

(2) Try to make something meaningful out of the findings.

### STEP 6 - REVIEWING

a. Go over all of the steps in the evaluation.

b. Look through your data again. Check any arithmetic that was done. Check any sampling that was conducted. Check for any biases that might have influenced anyone's perceptions.

c. Think through the Human Factor again. For all the rigor of the project design and the social science techniques used in the evaluation, was there something about people's psychology and the sociology of the thing that you ought to think about some more?

(NOTE: this step might just be the most important step in the whole evaluation)

- d. Pull together all the facts so that they mean something.
- e. Make a decision, or a recommendation on the basis of what you found.

STEP 7 - REPORTING

(See Appendix D on the Project Evaluation Summary.)

## CHAPTER IV

### GUIDELINES FOR A SPECIAL EVALUATION

The regular evaluation of projects or programs via the logframe method often results in a decision to make a special study of some aspect of the project (or program). Among the possible reasons for a special evaluation are:

-- to understand the causes of a problem so that changes may be made in the project implementation

-- to help plan for a follow-on project by getting more "in-depth" information about the progress achieved and some remaining problems., i.e., a combination evaluation and planning study

-- to study more intensively some "issue" which is not fully understood, but which is important for decisionmaking

-- to provide clues for dealing with broader questions such as formulation of new strategies, goal-setting, or resource allocation

-- to satisfy some special purpose deemed sufficiently important by a USAID Mission or AID/W.

Project or program managers in the field or in AID/W are expected to take the lead in identifying the questions which concern them and in formulating hypotheses which they need to have tested. Special evaluations initiated by AID/W may be confined to a single country or they may be comparative studies of experience in several countries.

### STEPS IN A SPECIAL EVALUATION

There is no fixed sequence of steps to be followed in conducting a special evaluation. The variety of experimental designs, special focuses or different reasons for the special study leaves an unlimited array of different things that might be done. Consequently, the advice offered here is in the form of guidelines--rather than a step-by-step recipe of what is to be done. In general, then:

FIRST - A special evaluation starts with a formulation of the issues or problems to be explored and illuminated. These usually derive from the reason for undertaking the study. If the special evaluation supplements a regular evaluation, it has to cover all

the steps usually covered in a regular evaluation via a logframe  
- i.e.:

- assessing changes in the setting of the project
- clarifying the logframe
- measuring progress
- assessing unplanned change
- searching for causes
- making inferences, conclusions, recommendations

PLUS whatever has to be done to answer the questions for the  
"special" study.

SECOND - One or more hypotheses are formulated to explain the  
problem. It will then usually be possible to specify the kinds  
of evidence needed to test or validate the hypotheses.

THIRD - A decision is made about how to collect the data  
required; how to process the data; how to analyze them. To help  
in this, a detailed evaluation study design will prove useful.  
In actual practice, evaluators often immerse themselves in the  
general background information and then work out possible  
explanations. These theoretical explanations, of course, are  
the untested hypotheses. You need to figure out what evidence  
you would have to have to demonstrate that the explanation is  
indeed true or false. The choice of how to get the information  
(i.e., from search of file records, or from interviews, or by  
inspections, surveys or whatever) will depend partly upon manage-  
ment decisions concerning the money, people, time, or other  
resources which can be made available. These things can make a  
BIG difference in your special evaluation. If you have only  
three weeks, and \$5000 and two people to find something out--you  
are going to do something quite different from what could be done  
if you had six months and \$50,000 and six people. Often, the  
smaller effort will garner sufficient information for AID's  
purpose. "Distinguish between what you need, and what you would  
like to need."

FOURTH - A decision may have to be made about whether to call  
upon outside consultants, or a contractor or various and sundry  
people from the host country. To help on this question, see the  
sections of this Handbook concerned with: How to Prepare a Scope  
of Work for an Evaluation" and the section concerned with Who  
should evaluate in "Evaluation Problems that Have No Ready  
Answers".

FIFTH - The special evaluation is implemented according to the  
Scope of Work that was drawn up for the Evaluation Team--  
regardless of whether the Evaluation team is composed of

contract personnel, consultants, host country representatives, or AID "direct-hire" personnel. It is the detailed plan for the special evaluation and it should be carried out in its entirety.

SIXTH - During the implementation of the special evaluation, careful records are kept of:

- What is being done
- How it is being done
- Why it is being done
- Who is doing it
- For whom it is being done
- When it is being done
- Where it is being done
- How much it is costing

SEVENTH - A draft report of the special evaluation, or at least a detailed outline should be prepared several days prior to departure from the country for "clearance" with the USAID Mission or the host country so that reactions can be obtained from users of the final report.

EIGHTH - A final report of the special evaluation should be prepared in the requisite number of copies for the Mission or office that requested that the study be made. There is no set format for special evaluation reports.

The only guidelines offered is that special evaluation reports should include essentially the same substantive information that is contained in the Project Evaluation Summary (see Appendix D). It does not have to contain all the items in the PES and it does not have to follow the particular sequence given in that form. For Special Evaluation Reports AID does not wish to place a damper on anyone's creative thinking. Just stick to the facts. Keep it succinct. Eventually, a Special Evaluation Report done for AID will be sent to the Office of Development Information Utilization of the Bureau for Development Support, AID/W. To facilitate use by readers; to help the abstracters and analysts in that DS/DIU office; and primarily to ensure comparability, Special Evaluation Reports should include a Summary. You are asked to place your Summary in the front of your report, because that is all some people will read. Further you are asked to follow the following suggested outline for the Summary, using 250-300 words altogether:

A. Introduction:

1. Describe in one or two brief sentences the project's intended purpose and outputs, and the reason for the special evaluation.

2. Describe in one sentence the inputs used to carry out the project.

3. Describe briefly the period covered by the evaluation.

B. Method:

1. Describe briefly the method(s) used to conduct the study.

C. Results:

1. State your conclusions regarding the project's performance and the degree of achievement reached at the output and purpose levels.

2. Where the project has succeeded, state the reasons why; where the project has failed, state the reasons why.

3. Identify the effects of external and/or internal factors on the performance of project activities.

D. Recommendations:

1. Provide a one-sentence assessment of the project's status.

2. Based on successes or failures, outline your recommendations for continuance, modification, or cessation of project activities.

E. Financial Summary and Analysis

NINTH - If the Special Evaluation Report has been written by an in-house evaluation team, comply with the local protocol concerning distribution to recipients. If the Special Evaluation Report has been written by an outside contractor or consultant:

a. Read the report

b. Decide whether you agree with it in its entirety; or only part of it; or none of it.

c. Place a Part I (the face-sheet) of a Project Evaluation Summary (PES) (AID 1330-15 (3-78)) on the outside cover of the Special Evaluation Report and state in Block 8 whatever you believe to be appropriate.

d. Sign it in Block 11 and have Block 12 signed by the USAID Mission Director, or the Office Director (if in AID/W).

46

## CHAPTER V

### GENERAL GUIDELINES FOR IMPACT EVALUATION

#### Impact Evaluation or Project Evaluation: What is the difference?

IMPACT (n.) The striking of one body against another (Webster). Synonyms for impact include: collision, clash, crash, crump, whomp, sideswipe, crunch, shock, smashing, mauling, etc., (Roget's Thesaurus, 4th Ed.). None has very positive connotations. Perhaps the term "impact" was not the best word to describe what we are trying to evaluate.

In the AID situation, we are interested in the influence of a project or program on a society--on all aspects of that society. The effects of this influence--the impact--may be desirable or undesirable, intended or unintended, transient or permanent, immediate or delayed, intermediate or final, planned or unplanned. AID is interested in all the changes in a society that have taken place as a result of a development project.

Past AID project evaluations have dealt almost exclusively with the "effectiveness" of implementation (how inputs have been turned into outputs) rather than with "impact". The line between impact and effectiveness is a fuzzy one. Obviously a project's impact depends to some extent upon effectiveness but impact goes further: It means the sum total of all the changes wrought by a project or program. The side effect. The spread effect. The ultimate benefits. The social and economic good that came about because of the project. It says: Given that the project/program purpose have been achieved to a certain extent, what difference did it make in the lives of the target population?

Because impact evaluations are still new and exploratory in AID, impact evaluation teams are encouraged to maximize their creative thinking, judgment and writing skills. The list of questions and issues suggested here is by no means exclusive nor exhaustive. They tend to be rather general because each team is expected to develop lists which are specific to its own project and sector. It is anticipated that impact evaluation teams will have more questions and issues than ability to answer them.

One of the reasons these guidelines have been prepared is because two kinds of reports are expected after several evaluations have been completed in each sector by the Agency. In order to incorporate findings from several studies into a summary report, the findings have to be collected, analyzed and reported in approximately the same way. The utility of impact evaluations

will be greatly enhanced when conclusions are based upon observation of several projects. Confidence in causal hypotheses will be increased by comparative analysis and become doubly useful for policy development and programming.

Two sets of comparative reports are planned. The first will assess findings and draw lessons within one sector, for example, rural road projects or health projects. The second analysis will draw together information from different reports which sheds light upon important issues common to several sectors, cross-cutting issues such as changes in women's status or long-term sustainability of projects.

Project evaluation involves measurement, analysis of the data, judgment about their meaning, and the attachment of value to the meanings. Impact evaluation involves measurement of changes, analysis of changes and their causes, assessment of the value of the changes, and judgments regarding the implications of the findings for policies and plans for the future.

The principal focus of AID's impact evaluations is change brought about by projects. In order to demonstrate change we have to know the situation before and after the project and also how the changes are linked to the project in a causal fashion. We are interested in changes in all aspects of the social, economic, cultural, psychological and physical environment of the people who are being "developed" by the project. Impact evaluation in AID only started in FY '80. In this initial experimental year they were limited to teams of three or four members spending three weeks in the field. With such constraints, it is not possible to focus on all changes that have taken place because of a project. The team must decide, after analyzing the project documents and discussing the relationship of the project to important issues, which issues are of concern to AID policy makers. Looking ahead two to five years, there are programs and issues that will need to be addressed in project design. The new impact evaluation program presents a unique opportunity to collect information from field programs which will help AID to design more effectively in the near future.

So when deciding what changes (impacts) to look at:

-- List those which are closely related to the project, i.e., those that are directly brought about by the delivery of project outputs.

-- Then go beyond and list all other possible changes which might be a result of the project.

-- Next, look carefully through the list and select the ten impacts which in your judgment have the potential for pro-

viding the most information for future policy formation and program design. Each team member should select his or her own ten impacts independently of the other team members.

-- Then by pooling the separate lists it will be seen where the judgments of team members are similar or different and also which are the core issues which most team members think important.

-- Assemble a list of impacts ranked in order of their importance.

-- Assess whether the team will be able to collect information about each issue (variable).

-- Determine how it relates to the original project design either from project documents, other published material or during visits to the country and project sites.

-- "Measure" the status of each variable both before and after the project (or during the project if it is not completed). Items included in the list which cannot be "measured" should probably be dropped or given less emphasis. By "measured" it is not meant that the change has to be expressed in quantitative terms. This is only one way of showing change. Change can also be shown to have taken place by observation of qualitative aspects or conditions before and after the project, or by interviewing participants and other knowledgeable people who can tell you of changes that have taken place in their lives as a result of the project. In some cases it may be difficult to find out about prior conditions in project sites. You may have to substitute similar communities which have had no contact with the project in order to collect the "before" information.

A suggested outline for an impact evaluation report follows. Obviously each team will decide upon the substantive contents of the report but the outline is presented to ensure that all major topics and issues are covered in a fairly similar way so that the summary impact evaluation reports will be relatively comparable.

#### The Report Outline

Following the introductory material the report should include five sections:

- I. Project Setting
- II. Project Description
- III. Project Impacts: Findings
- IV. Project Impacts: Analysis
- V. Lessons Learned and Policy Implications

### I. Project Setting

Describe the conditions which produced the need for the development project. Try to be as specific as possible about the situation in which the intended beneficiaries were living. What specific problem or aspect of their life is to be addressed by the project? Look at the societal level for problems such as foodshortages, rural-urban migration, foreign exchange shortages. Record the every day living conditions where personal problems of health; education, lack of information to use in coping with poverty, etc., exist, and may be changed by the project. Base-line information may be difficult to find, particularly at the "people" level. Be resourceful.

### II. Project Description

The purposes and goals of the project should be outlined. The strategy or proposed course of action should be reviewed with careful attention being paid to the adequacy with which the design addresses the basic problem, and also to the assumptions (whether stated or not) which were made by the planners and are crucial to the success of the project.

The project history should briefly describe what happened and who was involved in project implementation. (Additional details should be placed in an appendix to the report.)

### III. Project Impacts: Findings

This section and the two which follow are the heart of the report. The findings should be divided into intended impacts and unintended impacts.

An intended impact is one specified in project purpose and goal. If small farmer income was to increase by "x" percent over three years, did it? If women were to be beneficiaries from a new marketing system, were they? To what degree? If in your judgment, the project purpose was not clear or was wrongly stated, it must still be taken at face value for fairness. In some cases, the project purpose may have changed, or does not reflect the "real" intent of the designers. If there is evidence for this, say so.

Often the more interesting results are unplanned or unintended. If the project purpose was narrowly conceived, you may still want to address certain fundamental questions:

Who benefitted?--farmers? landless laborers?  
women? children? rich people? poor people?--and  
How? Thru income? education? social mobility?

60

What were the economic and social costs? and How were they allocated? (This may involve both "hard" economic data and qualitative data at both the personal and societal level).

Were there environmental consequences? Specify.

Were there "access to health? or to agricultural inputs? Opportunity for education? Social mobility?

Additional Agency interests which apply to all project evaluation include:

The role of women in the project and the impacts upon women. The effects on the project of rising energy costs. Was the appropriate technology-- both hardware and software--being used?

Changes in assets of intended beneficiaries are difficult to judge and usually occur over a longer time period. However, they are important--for example, if agricultural intensification leads to increased indebtedness, increased land values may lead to land sales and farm consolidations into larger units. One can think of many other scenarios, the point is to try to assess what the long term effects might be even if they are not obvious at the time of the evaluation.

#### IV. Project Impacts: Analysis

Having listed the important changes, now comes the time to ask "Why?", and also assess very carefully the causal relationships that have been implied in the description of project impacts. Put more formally, here is the problem of causality, attribution and competing hypotheses. here, also, is the place to address the AID and host country effectiveness issue.

-- Review previous project evaluations. Did missions do them? Use them? Pass the results to the host country?

-- Look at a whole range of explanations from macro-level policies to micro-level factors; from highly managed discrete inputs to random events such as typhoons and political upheavals.

-- Consider whether the project will be continued. Was the "development" sustained after AID support stopped? Sustain-

ability involves a number of subissues including the economic viability of the activity, the level of government commitment to maintaining the project measured by the adequacy of institutional arrangements and personnel, and the degree of popular support, involvement and perceived benefits by the affected population. The potential burden of recurrent costs for the government and beneficiaries must be considered.

-- Consider whether the project can be repeated elsewhere. Has it already "spread" to other communities? Replicability is not always a relevant issue, but it is in many instances, especially in so-called pilot projects. It is closely related to sustainability and many of the same issues pertain. If, for example, you may find it working and valued by the beneficiaries--however, it may be so costly to install and maintain that it would be impossible to replicate on a nation-wide basis. On the other hand partial replications do occur--an idea, approach or technology used in an other wise unsuccessful project may spread through natural processes or may influence other projects after modification.

All of the above suggestions should be thought of as "guidance"--they are not a checklist, and they are not meant to constrain the impact evaluation efforts. It is to be hoped that these suggestions will broaden the perspective of the evaluation, while at the same time maintain the focus on the minimum economic, social and physical impact of the project on people and the environment in which they live.

#### V. Lessons Learned and Policy Implications

This section provides the opportunity to sum up, to raise the level of generality, and to address policy and possibly alter the future course of AID programs. This is an important section--and should be limited to the most important issues raised.

Distinguish between substantive lessons which may be project specific and those which pertain to AID policy and procedures.

#### Final Note

Attach appendices for a more complete technical treatment. Appendices may also serve a the place to present all the detailed qualitative data, references and bibliographies that lend professional credibility and support to your findings and judgments.

SUGGESTED OUTLINE: IMPACT EVALUATION REPORTS

- i. Title Page
  - ii. Executive Summary--two pages
  - iii. Table of Contents
  - iv. Preface
    - a. Brief statement of evaluation methods
    - b. Acknowledgements
  - v. Project Data Sheet
  - vi. Map
- 
- A.I.D. Impact evaluations are requested to cover SECTION I to V and NOT MORE THAN 15 PAGES
- 
- I. Project Setting
    - a. The problem which gave rise to the project.
    - b. Description of the beneficiaries, their society and their environment prior to the project--appropriate baseline information.
  - II. Project Description
    - a. Outputs, purposes, goals (levels), (targets for each)
    - b. Strategy--the proposed course of action--intended to do.
    - c. History--what actually happened, and the people involved. Include whether outputs were achieved.
  - III. Project Impacts: Findings
    - a. Achievement of specified purposes, goals and targets.
    - b. Unplanned effects on beneficiaries, their society and environment--any and all changes that can be linked to the project.
    - c. Cross-cutting issues such as: local participation, womens' role changes, rising energy costs, environmental effects, and appropriate technology.
  - IV. Project Impacts: Analysis
    - a. Evaluate causal relationships
    - b. Competing explanations
    - c. Sustainability/recurrent cost burden
    - d. Replicability/Spread
  - V. Lessons Learned and Policy Implications
    - a. AID's role in development projects
    - b. For other major development issues
  - VI. Appendices
    - a. Last logical framework for project
    - b. Detailed statement of field methods
    - c. Field notes, etc.

APPENDIX A

BRIEF GLOSSARY OF EVALUATIVE TERMS

BRIEF GLOSSARY OF EVALUATIVE TERMS

Administrative audit - Evaluation of the degree of compliance of policies, procedures, and practices with stated rules, regulations, directives, guidelines, or laws; examination into the adherence of staff and program to predefined standards.

Assumption - An event or action which must take place, or a condition which must exist, if a project is to succeed, but over which the project management has little or no control. There are normally different assumptions, or external factors for each level of the project design. Assumptions or external factors must be checked for their occurrence or not during the search for causes of an evaluation.

Baseline Data - Data collected at the start of a project or program which provide a basis for comparison for assessing results made at a later time.

Benefit/Cost Analysis - Analysis of the economic or other benefits or degree of goal attainment of a project in comparison with the cost of delivering those benefits; a comparison of the relative benefits and costs of a project--usually expressed as a ratio.

BOPS - Beginning-of-Project-Status; the baseline from which change will be assessed by comparing with measures made later during the life of the project or at the End-of-Project Status (EOPS).

Criterion - A standard on which a judgment or decision may be based; an observation or set of observations which permit judgment as to the attainment of an objective. (Note: the plural of criterion is criteria.)

Data - The plural of datum. A collection of factual information used as a basis for discussion or a decision; a number of observations--either qualitative or quantitative.

Design - A detailed comprehensive plan for carrying out a research or other project. An experimental procedure which lends itself to being analyzed statistically.

Donor - A giver; a government or other organization which provides foreign assistance.

EOPS - End-of-Project-Status; the condition or situation which will exist if the project achieves its purpose; an objectively verifiable description of those conditions, in the form of measures, indicators, or proxies that will show that the project purpose will have been attained.

55

Evaluation - The retrospective analysis of what happened in a development project and why. The making of judgments about the success or failure of a project. The assignment of value to something.

Evaluation Team - A group making an evaluation--usually a director or project manager, an evaluation officer, appropriate technical experts, and such other staff as thought advisable--who plan, conduct, and report on the evaluation of a program or project.

Effectiveness - A measure of the degree to which a project or program attains its objectives; the degree to which an output, purpose, or goal target is reached.

Efficiency - A measure of the degree to which a project or program succeeds in maximizing its beneficial results at the least cost.

Evaluative Research - Research or experimental studies conducted in order to provide the data and information upon which an evaluation may be based.

External Evaluation - Evaluation which is conducted by a group or team external (i.e. not members of) the program or project.

External Factors - (See Assumptions) - Factors, conditions, or causal influences outside the control of the project management--but which have an important effect on the success or failure of the project. Necessary conditions for the attainment of the next higher level of a GPOI--but not sufficient by themselves for the attainment.

Feasibility Study - A study conducted to determine whether implementation of a proposed project or program is possible or advisable.

Feedback - Redirection of part of the information from a project to the project manager for purposes of control. In evaluation, the return of information about project effects, outcomes, or results to the project manager for the purpose of improving the project planning or the project implementation.

Goal - An objective of a national program or sector; the expression denoting the objective beyond the project purpose. The program or sector end to which a project contributes. The target toward which the project efforts of A.I.D. and the cooperating government are directed. The goal normally deals with broad economic, social, and/or political aims. It may be measurable in quantitative terms, or it may be identified only through qualitative and behavioral criteria.

Goal-Attainment - A measure of the degree of success or failure in reaching a pre-set objective.

GPOI - An acronym for Goal - Purpose - Outputs - Inputs

Hypothesis - A proposition tentatively assumed in order to draw out its logical or empirical consequences and so test its accord with facts that are known or which may be determined. It is usually a statement in the form "if A, then B" where there is uncertainty about the causative relationship between the existence of A and the achievement of B.

Indicator - An explicit and objectively verifiable measure of results expected. Good project design must include preestablishing what will be measured or observed to demonstrate progress--i.e., a change for the better. Progress should be verifiable objectively so that two or more people would agree that progress has or has not been as planned. Objectively verifiable indicators help focus attention on evidence rather than on subjective opinions.

Input - An expression borrowed from systems analysis meaning the flow of resources, or raw materials into a process or project. In A.I.D., inputs are the resources (such as money, technical advice, commodities, training, and so forth) which the USAID Mission provides with the expectation of producing certain outputs. In the logic of the input/output relation, inputs are the "cause" and outputs are the "effect".

Internal Evaluation - Evaluation conducted by an organization, of its own project results, in order to monitor, control, replan, and make decisions.

Logframe - Abbreviated expression for Logical Framework Matrix - a summary in matrix form (rows and columns), showing the overall design or plan of a development project.

Longitudinal Study - A study conducted over a period of time for the purpose of studying changes which occur with time. This is opposed to a "cross-sectional" study, which focusses on a single point of time--often for the purpose of studying differences or similarities between or among groups.

Matrix (Logical Framework) - A summary worksheet for the analysis of project design divided into four horizontal rows (for Goal, Purpose, Outputs, and Inputs) and four columns (for Narrative, Objectively Verifiable Indicators, Means of Verification, and Important Assumptions). Modifications may be made to suit local circumstances.

Measure of Achievement - Indicators. The means of verifying whether the objective was reached.

Monitoring - The observation of project activities on a day-to-day basis and the collection of timely information on inputs and outputs that are critical to the attainment of project objectives.

Objective - The end, aim, or target that has been pre-established. A specific measurable result or effect which a program or project is to accomplish. May also be used as an adjective in the philosophical sense, as the opposite of subjective.

Outputs - The specifically intended objectives to come out of the resources put into a project.

PROAG - Project Agreement. A written document specifying the responsibilities and obligations of the U.S. government and a host country government with regard to a project.

Program Analysis - Collection and analysis of data relating to the organization, function, and outcomes (planned or unplanned) of a program, or more than one project.

Project - An organized effort for change; an integrated activity or set of activities which converts resources or inputs (e.g., personnel, material, finances) into outputs, purpose, and goal. In A.I.D. Handbook 3, a project is defined as the total discrete endeavor to create through the provision of personnel, equipment and/or capital funds, a finite result directly related to a discrete development problem.

Project Evaluation - The retrospective analysis of what happened in a project and why; it is the assessment of the effectiveness of an individual project in achieving its stated objectives. In A.I.D., project evaluation stops with the assessment of whether or not a project has achieved its Purpose--the end-objective of a project. If the assessment continues to determine the achievement of objectives beyond the Purpose--it is Program Evaluation. If the assessment is conducted to determine the effect the project had after it had been completed--it is Impact Evaluation.

Project Review - The meeting or process whereby interested parties are called together in a constructive atmosphere to review evidence from an evaluation and to confirm actions to be taken.

Purpose - The ultimate reason for the project; the primary objective for conducting the project; the development change which will be attained, or the problem which will be solved if the project is completed successfully and on time.

- 98

Reliability - Dependability; the degree to which a measurement or instrument can be relied upon to give consistent results.

Sample - A limited number of observations, usually taken systematically or at random--and made for the purpose of inferring some attribute of the larger whole--called population or universe.

Statistics - A collection of quantitative data. A branch of mathematics dealing with the collection, analysis, interpretation, and presentation of masses of numerical data. The purpose of such analysis is usually to make a more general prediction about a larger number of occurrences or an ongoing process on the basis of sample observations.

Survey - A study usually using interviews or questionnaires to ascertain the attitudes, beliefs, or behaviors of a particular segment of the population.

Target - In A.I.D., the specific end-product expected at any level of the objectives of a project (outputs, purpose, goal). The word target has reference to the aims set forth in column 1 (Narrative) of the Logframe. When the statement of results expected is specifically targetted--it becomes the indicator or measure of the target when it clarifies the magnitude of the desired end-project, and the time it will occur. When targetted, it is set forth in column 2 (Indicator), and has reference to What is being aimed at: How Much of it; and When.

Validity - Accuracy. The degree to which a measure actually reflects the true quality of what it purports to measure.

91

**APPENDIX B**  
**SUGGESTED ADDITIONAL READINGS**

SUGGESTED ADDITIONAL READINGS

Program Evaluation Discussion Papers

- No. 1: Reaching the Rural Poor: Indigenous Health Practitioners Are There Already (March 1979)
- No. 2: New Directions Rural Roads (March 1979)
- No. 3: Rural Electrification: Linkages and Justifications (April 1979)
- No. 4: Policy Directions for Rural Water Supply in Developing Countries (April 1979)
- No. 5: Study of Family Planning Program Effectiveness (April 1979)
- No. 6: The Sociology of Pastoralism and African Livestock Development (May 1979)
- No. 7: Socio-Economic and Environmental Impacts of Low-Volume Rural Roads--A Review of the Literature (February 1980)
- No. 8: Assessing the Impact of Development Projects on Women (May 1980)

Evaluation Reports

Program Evaluations

- No. 1: Family Planning Program Effectiveness: Report of a Workshop (December 1979)
- No. 2: A.I.D.'s Role in Indonesian Family Planning: A Case Study With General Lessons for Foreign Assistance (December 1979)
- No. 3: Third Evaluation of the Thailand National Family Planning Program (February 1980)
- No. 4: The Workshop on Pastoralism and African Livestock Development (June 1980)

Project Impact Evaluations

- No. 1: Colombia: Small Farmer Market Access (December 1979)
- No. 2: Kitale Maize: The Limits of Success (May 1980)
- No. 3: The Potable Water Project in Rural Thailand (May 1980)
- No. 4: Philippine Small Scale Irrigation (May 1980)
- No. 5: Kenya Rural Water Supply: Program, Progress, Prospects (May 1980)
- No. 6: Liberia: Rural Roads (June 1980)
- No. 7: Effectiveness and Impact of the CARE/Sierra Leone Rural Penetration Roads Project (June 1980)

Special Studies

- No. 1: Afghanistan Basic Village Health (Forthcoming)

Program Design and Evaluation Methods

Manager's Guide to Data Collection (November 1979)

- Alkin, Marvin C., Richard Daillak, and Peter White  
Using Evaluations - Does Evaluation Make a Difference? Vol. 76,  
 Sage Library of Social Research Beverly Hills: Sage 1979
- Anderson, Scarnia B., and Samuel Ball  
The Profession and Practice of Program Evaluation, San Francisco:  
 Jossey Bass 1978
- Ball, Samuel, and Scarnia B. Anderson  
Professional Issues in the Evaluation of Education/Training  
 Programs, Princeton, N.J.: Educational Testing Service 1975
- Brown, James, Witold Marcjewski, Duncan Miller, David Roberts and  
 Wolf Scott (Eds.)  
Multi-purpose Household Surveys in Developing Countries.  
 Proceedings & Papers of the study Session Organized by the OECD  
 Development Centre, Paris: OECD 1978
- Campbell, Donald T. & J.C. Stanley  
Experimental & Quasi-Experimental Design for Research, Chicago:  
 Rand McNally 1966
- Caro, F.G. (Ed.)  
Readings in Evaluation Research, New York: Russell Sage  
 Foundation, 1971
- Chelminsky, Eleanor (Ed.)  
Proceedings of A Symposium on the Use of Evaluation by Federal  
 Agencies, Symposium Report Vol. I, National Institute of Law  
 Enforcement & Criminal Justice. Metrek - A Division of MITRE  
 Corp., McLean, VA 22102, March 1977
- Cook, Thomas D. and Charle S. Reichardt  
Qualitative and Quantitative Methods in Evaluation Research, Vol.  
 1, Sage Research Progress Series in Evaluation, Beverly Hills:  
 Sage 1979
- Daines, Samuel R.  
An Overview of Economic and Data Analysis Techniques for Project  
 Design & Evaluation, Development Studies Program, Agency for  
 International Development and U.S. Dept. of Agriculture,  
 Washington, D.C. 20523, August 1977
- Datta, Lois-Ellin and Robert Perloff  
Improving Evaluations, Beverly Hills: Sage, 1979
- Dolbeare, Kenneth M. (Ed.)  
Public Policy Evaluation, Beverly Hills: Sage Publications, 1975

- Dorfman, Robert (Ed.)  
Measuring Benefits for Governmental Investment, Washington, D.C.:  
The Brookings Institution, 1965
- Freeman, Howard E.  
The Present Status of Evaluation Research, Socio-Economic Analysis  
Division, UNESCO, Paris, August 1976
- Glass, G.V. (Ed.)  
Evaluation Studies Review Annual, Vol. I, Beverly Hills, Calif.:  
Sage, 1976
- Guttentag, Marcia (Ed.)  
Handbook of Evaluation Research, Vol. 2, Beverly Hills, Calif.:  
Sage, 1975
- Hatry, Harry P., Richard E. Winnie, and Donald M. Fisk  
Practical Program Evaluation for State and Local Government  
Officials. Urban Institute, Washington, D.C. 1973
- Hayes, Samuel P., Jr.  
Evaluating Development Projects. A Manual for the Use of Field  
Workers, UNESCO, Paris, 1959
- Hays, William L.  
Statistics, New York: Holt, Rinehart & Winston, 1963
- Hoole, Francis W.  
Evaluation Research & Development Activities, Vol. 68. Sage  
Library of Social Research, Beverly Hills: Sage, 1978
- Imboden, N.  
A Management Approach to Project Appraisal and Evaluation with  
Special Reference to Non-Directly Productive Projects, Development  
Centre, Organization of Economic Cooperation & Development, Paris,  
1978
- Isaac, Stephen and William Michael  
Handbook in Research and Evaluation, San Diego: Knapp, 1971
- Kearl, Bryant (Ed.)  
Field Data Collection in the Social Sciences. Experiences in  
Africa & the Middle East. Agricultural Development Council, 1290  
Avenue of the Americas, New York 10019, 1976
- Miller, Delbert C.  
Handbook of Research Design & Social Measurement (3rd Ed.) New  
York: David McKay Co., Inc., 1977

Moroney, M.J.

Facts from Figures (3rd Ed.) Baltimore: Penguin Books Inc., 1956

Morris Lynn Lyons (Ed.)

(Books in the Program Evaluation Kit): Beverly Hills, CA: Sage, 1978

Evaluator's Handbook

How to Deal with Goals and Objectives

How to Design a Program Evaluation

How to Measure Program Implementation

How to Measure Achievement

How to Measure Attitudes

How to Calculate Statistics

How to Present an Evaluation Report

Morris, Morris David

Measuring the Condition of The World's Poor: The Physical Quality of Life Index, Pergamon Policy Studies No. 42, New York: Pergamon, 1979

Morris, Morris David, and Florizel B. Liser

The PQLI: Measuring Progress and Meeting Human Needs, Overseas Development Council Communique No. 32, Washington, D.C.: ODC, 1978

Patton, Michael Quinn

Utilization-Focused Evaluation. Beverly Hills: Sage, 1978

Patton, Michael Quinn

Qualitative Evaluation Methods, Beverly Hills: Sage, 1980

Riecken, Henry W. and Robert F. Boruch (Eds.)

Social Experimentation: A Method for Planning and Social Intervention. New York: Academic Press, 1974

Rossi, Peter H., and Sonia R. Wright

Evaluation Research: An Assessment of Current Theory, Practice and Politics, Socio-Economic Analysis Division, UNESCO, Paris, September 1976

Rossi, Peter H., and Walter Williams (Eds.)

Evaluating Social Programs, Theory Practice & Politics. New York: Seminar Press, 1972

Rutman, Leonard (Ed.)

Evaluation Research Methods: A Basic Guide, Beverly Hills: Sage, 1978

Struening, E.L. (Ed.)

Handbook of Evaluation Research, Vol. 1, Beverly Hills, Calif.: Sage, 1975

65

Suchman, Edward A.

Evaluative Research: Principles and Practices in Public Service and Social Action Programs, New York: Russell Sage, 1967

Weiss, Carol H. (Ed.)

Evaluation Action Programs: Readings in Social Action and Education, Boston: Allyn & Bacon, 1972

Weiss, Carol H.

Evaluation Research: Methods for Assessing Program Effectiveness, Englewood Cliffs, N.J.: Prentice Hall, 1972

Evaluation & Analysis to Support Decision Making, U.S. General Accounting Office, Washington, D.C. 1976

Evaluating Development Assistance Problems of Method and Organisation, Organization for Economic Co-Operation and Development. Paris, 1972

Evaluation: A Forum for Human Service Decision Makers, (Magazine published by Program Evaluation Resource Center, Medical Research Foundation, Inc., 501 South Park Avenue, Minneapolis, MN 55415)

Evaluation Quarterly - A Journal of Applied Social Research, Sage Publications, 275 South Beverly Drive, Beverly Hills, CA 90212

Operations Evaluation - Standards and Procedures, World Bank, 1818 H Street, N.W., Washington, D.C. 20433 USA August 1979

Status & Issues - Federal Program Evaluation, U.S. General Accounting Office, Washington, D.C., 1973

The Evaluation of Technical Assistance, Organization for Economic Cooperation and Development, Paris, 1972

The Interviewer's Manual, Survey Research Center, Institute of Social Research, University of Michigan, Ann Arbor, Michigan, 1969

APPENDIX C

ASSISTANCE FROM A.I.D./W ON EVALUATION PROBLEMS

ASSISTANCE ON EVALUATION PROBLEMS

When there are problems related to evaluation in the field, the first source of assistance within the Mission is the Evaluation Officer. Within AID/W, each regional and central Bureau has an Evaluation Officer. Within the Bureau for Program and Policy Coordination there is a central Office of Evaluation which can provide highly technical advice and/or personnel for evaluative studies. Also, AID and the host country will probably be able to furnish social scientists with the necessary talents and skills; the Agency and the host country have the technicians with the appropriate expertise.

Another source of assistance in A.I.D./W is the Office of Development Information and Utilization (DS/DIU) of the Development Support Bureau. This office has been established to answer a variety of requests for technical and project experiential information from LDC individuals or institutions, USAID Missions, other parts of A.I.D./W, the Peace Corps, and the Private and Voluntary Agencies. A staff of both foreign Service and A.I.D./W personnel will locate and select information from various sources, analyze and synthesize as required, and "package" a specific response to the requestor.

DS/DIU Development Information Resources

The DS/DIU Development Information Centers in the State Department building (Room 1656, New State, Telephone (202) 632-8701) and in Rosslyn (Room 105, SA-18, Telephone (703) 235-1000), provide "walk-in" reference library services. The Centers contain some 125,000 reports and publications related to development assistance. Equally important, the two Centers have access to all major special, academic and technical libraries in the U.S. and, in addition, have on-line access to some 100 automated specialized data bases citing development literature published worldwide.

DS/DIU direct manages three major A.I.D. data systems:

(1) The Development Information System, functioning as the A.I.D. "Memory", provides project descriptions, evaluations and other program documents. This system maintains two files: 1) the TEXT files which has descriptions of AID projects as active as of September 1974 and later; and 2) the BREF file, which contains notations of evaluative documents, including Project Evaluation Summaries, Special Evaluation Reports, Project Appraisal Reports and end-of-tour reports. Once your request is received, there is about a two-week turn-around time for a search to be conducted for similar projects (or projects containing specific components in which you are interested.) The same holds true for the summaries sent to you.

b2

(2) The Research and Development System contains abstracts of available A.I.D.-funded technical and research reports. It is an automated catalogue of technical studies and reports. Actual copies of these documents, on microfiche or in paper copy, can be ordered through a central distributor; they are free to Missions and host government institutions. Many of these reports are described in the "AID Research and Development Abstracts", a quarterly publication which the Missions already receive. Every issue contains order forms and shows the Mission's "recipient code" to be used for ordering. Although most of these studies are of a technical nature, the catalogue also contains evaluations. Orders take about three weeks to fill.

(3) The Economic and Social Data System maintains the Agency's central source for national-level social and economic data. These data have been used to help meet such requirements as the COSS preparation, the 102(d) measurement of progress toward equity standards, and summary data for the Congressional Presentation. Both current data and time series are available. In addition to this "macro" data ESDS has also produced a bibliography of some 600 "micro" datasets obtained from household and farm surveys conducted between 1960 and 1975 by US researchers. These can be checked for baseline data on variables or indicators that might still be useful to the Mission or its contractors. It also contains in addition to AID sources, combined economic and social data from IBRD, IMF, and USDA source for virtually all countries covering, in most cases, a 20 year period. The ESDS also provides data analysis services for researchers, analysts, economists, and project designers in development areas of specific concern.

DS/DIU maintains contract or other working arrangements with the USDA, Bureau of the Census, Department of Commerce, and organizations such as Volunteers in Technical Assistance to allow rapid access to additional specialized information of priority interest to AID. In summary, the development information resource available to users through DS/DIU are vast and complex. However, through automation, rapid reproduction and other techniques, DS/DIU is capable of prompt identification, selection, duplication and transmittal of specific material to meet a specific need.

#### Publications and Dissemination Services

In addition to responding to individual development information requests, DS/DIU produces various regular and ad hoc publications of development interest.

-- A.I.D. Research and Development Abstracts, published quarterly since 1973, provides abstracts of A.I.D. supported research reports. With a mailing list of approximately 7000 worldwide, ARDA offers to requestors, full research documents in

microfiche or paper copies of reports cited, at cost or subsidized cost to LDC requestors. ARDA items are free to A.I.D. staff and other U.S. Government development agencies. In the last four years over 124,000 documents have been provided. Over 92% of these were provided directly to LDC institutions, individuals or others outside the U.S.

-- Director of Development Resources first published in June of 1979, is a 400-page compendium of information resources including data banks, newsletters, information clearinghouses, and development resource institutions in the LDCs and the U.S. that have been financed or otherwise sponsored by A.I.D. A detailed description of each resource and means of direct access by the reader is provided. It is published in English, Spanish and French and updated annually.

-- A.I.D. Resources Report first published in February 1978, is a bi-monthly newsletter which presents concise information on new technology, procedures and development findings that is directly applicable and useful to the development technician. On request, full documentation is provided to the reader on any of the items included and personal contact encouraged with the technical office responsible for the item. A.I.D. Resources Report is produced in French, Spanish and English and the mailing list includes the Peace Corps, the Private and Voluntary Agencies and LDC institutions or individuals who wish to participate. There is no cost to the requestor for the services.

-- Research Literature for Development, (Vol. I, December 1976, 427 pages Vol. II, December 1977, 596 pages). This is a catalog of approximately 70% of A.I.D.-sponsored research and development reports from 1962-1977. All are available to LDC institutions and USAID Missions in paper copy or microfiche on request from DS/DIU.

#### DS/DIU Technical Assistance in Information Science

DS/DIU provides TDY assistance in design, implementation and evaluation of A.I.D. projects with development communication and information components such as publication and mass media extension efforts, clearinghouses, information centers and data systems. Assistance in development of brochures, newsletters and other information support needs is also available.

#### How to Reach DS/DIU

DS/DIU accepts request for information by letter, cable, phone call or personal visit. Be as specific and detailed as possible in describing your information need. Your intended use of the information, language needs, probable audience and many other pertinent

details will help the DS/DIU to select and tailor the response to your requirement in the shortest period of time. All of the information services listed in this Appendix are available to LDC and other donor individuals and institutions, and their use is encouraged. Correspondence for DS/DIU should be addressed:

DS/DIU, Room 509, SA-14  
Agency for International Development  
International Development Cooperation Agency  
Washington, D.C. 20523

#### OTHER U.S. PROGRAMS IN STATISTICS AND DATA PROCESSING

The U.S. Government, primarily through the U.S. Agency for International Development (USAID), funds a variety of activities of interest to statisticians, demographers, economists and data processors interested in economic development. These activities fall into the broad categories of training, technical assistance, data processing, and software.

Generally, the initial point of contact for an LDC government to obtain information on or accessing the services and materials outlined below, should be through the country USAID Mission to the appropriate regional bureau in AID/W.

##### I. For assistance in training:

A. The Bureau of the Census (BuCen) offers training programs for survey and mathematical statisticians, subject-matter specialists, and data processing technicians. This training falls into three categories:

1. BuCen offers practical, applications-oriented 11-month training programs for experienced, working statistical and data processing staff in the areas of:

- sampling and survey methods
- agriculture surveys and censuses
- population statistics and demographic analysis
- economic survey and censuses
- computer data systems
- statistical technology and survey management

A special 11-month program in agricultural censuses is now also available. These courses of study are held in Washington and instruction is provided in English.

71'

2. Building on the 11-month training programs outlined above, BuCen cooperates with George Washington University in offering a 16-month Combined Degree Program leading to a Master's Degree in Special Studies (social and economic statistics) and with Georgetown University in offering an 18-month Demography Degree Program leading to a Master of Arts in Sociology (demography). In these Master's degree programs, the BuCen training is supplemented by several graduate level courses offered at these Washington-area universities.

3. BuCen offers a variety of special programs which include:

-- Planning and Implementing a Household Survey

This 8-week, Washington-based program is based on the guidelines of the U.N. National Household Survey Capability Program and includes 4 weeks of lecture, discussion and laboratory work and 4 weeks of participation in a demonstration survey. This workshop is in English.

-- Planning and Implementing a Census of Agriculture

This 8-week, Washington-based program is presented in cooperation with the U.N. FAO and follows a 4-week lecture and 4-week demonstration survey format. This workshop is in English.

-- Workshops on Mapping and Census Planning

A series of regional 3-week workshops in Mapping for Censuses and Surveys and 4-week workshops in Population and Housing Census Planning and Implementation are conducted. Two mapping workshops, one in French and one in English have been held overseas.

-- Special Courses

BuCen also offers a variety of courses tailored to specific host-country needs in terms of content, location and language. Examples of the topics of such courses include agriculture surveys, program and project evaluation, data processing software, sampling, etc.

B. The Bureau of Economic Analysis (BEA) offers training programs in national economic accounting at various levels. They include a basis, 11-month training course, regularly scheduled short-term

programs, and ad hoc opportunities for advanced study in national economic accounting. Instruction is in English.

The basic course emphasizes the conceptual framework and methodology of national income and product accounting based on the System of National accounts (SNA). Particular applications of national accounts to the problems of measuring growth and development are considered. Problems relating to improving the accuracy and usefulness of the estimates of subsistence and non-monetary activities of developing economies are basic considerations throughout the program.

There are 8-week seminars which are designed to meet the needs of experienced technicians for advanced study in one or more areas of national economic accounting. Seminars which have been offered include Real Product Accounting, Capital Finance Accounts and Balance Sheets and Input-Output Accounting. A new seminar on Economic Indicators (Short-term Measures of Income and Product and Cyclical Indicators) has been added to the program.

C. The U.S. Bureau of Labor Statistics (BLS) provides training in labor statistics at its training facility in Washington, D.C. The current BLS program features a series of seminars lasting 6 to 8 weeks which are designed to strengthen capabilities in collecting and analyzing manpower data and related economic and social statistics and in applying the results to policy formulation, especially for human resources development. Although the training is in English, interpreter services can be provided if a sufficient number of participants require these service in a specific language.

The 8-week seminar, Techniques of Measuring and Analyzing Prices, Income Distribution, and Poverty in Rural and Urban Areas, focuses on the design, collection, processing, and compilation of consumer price indexes, producer and industrial price indexes, and consumer expenditure surveys and the measurement of living conditions, income distribution and poverty levels.

The second 8-week seminar, Analysis of Labor Statistics for Policy Formulation in the Human Resources Sector, presents systematic methods for analyzing statistics related to labor and human resources.

Topics of other seminars vary from year to year, and include the measurement of wages, salaries and other compensation paid to workers and the determination of minimum wages and compensation; economic growth, income distribution, and poverty; characteristics of the labor force, including measurement of employment, under-employment and unemployment; and manpower projections and forecasting for planning. BLS also conducts 2-4 week seminars overseas on request.

II. USAID-funded technical assistance can be obtained most readily on a bilateral basis through its field missions. The following represents only a partial list of the technical assistance resources available in the areas of statistics and related data processing.

A. The department of Agriculture (USDA) offers technical assistance in the general area of agriculture statistics, with a focus on remote sensing, area sample frames and production statistics.

B. The National Center for Health Statistics (NCHS) offers technical assistance in the development and improvement of vital registration systems.

C. The U.S. Bureau of the Census (BuCen) offers a variety of statistical and data processing technical assistance in support of:

- sample design;
- survey planning, implementation and processing;
- program and project evaluation;
- planning, implementation and data processing of agriculture, population and housing censuses.

This assistance has been provided in such diverse substantive areas as agricultural and rural development, health and nutrition, population, economic statistics, education, rural electrification, water systems and migration.

D. Other

In addition to the above, AID/W also funds a variety of organizations to provide technical assistance in support of demographic data collection and analysis.

III. For assistance in Data Processing Software AID has funded the development of a wide range of statistical software packages, several of which are designed for use in developing countries. A brief description of those of particular interest to developing countries follows:

A. U.S. Bureau of the Census

1. CENTS and COCENTS

CENTS (Census Tabulation System) and COCENTS (COBOL Census Tabulation System) are designed for tabulating housing and

74

population census data, and aid in the tabulation of all types of survey and census data. CENTS is written in IBM 360/370 Assembler language (ALC) and allows for very rapid execution time and minimal core requirements (24K). For hardware other than IBM 360/370, COCENTS may be used as it is written in standard COBOL so that it can be used on virtually any machine with a COBOL compiler and 64K core available. The COCENTS system has been installed on smaller machines but commands are removed and the capabilities of the package are reduced. For normal statistical processing needs, a minimum of 64K is recommended.

CENTS and COCENTS were developed expressly for producing census and survey tabulations and are very powerful in aiding the user in this function. The major benefits of these systems is their high degree of flexibility in the handling of input data and producing tabular results and the speed and efficiency with which they process data files. There are no substantial peripheral equipment requirements for CENTS or COCENTS.

## 2. CONCOR

CONCOR (CONSistency and CORrection) an edit and automatic correction package, was initially developed in IBM assembler-language coding by the U.N. Latin American Center for Demographic Studies (CELADE). It has since been converted to COBOL.

Presently, this software is available only for IBM OS computers. Possible, future conversions to other computer systems such as IBM DOS systems, ICL, NCR, Honeywell, etc., would make CONCOR operational on most computers with 128K core storage.

3. The X-11 Variant of the Census Method II Seasonal Adjustment Program. This FORTRAN program was developed by the U.S. Bureau of the Census for use in the analysis of a wide variety of statistical series. The X-11 program utilizes a ratio-to-moving-average method to decompose an original series into a trend-cycle component, a second component, and an irregular component. The program includes options which permit adjustments for variation due to calendar composition and known irregularities in the input series, user selection of moving average weights, identification of extreme values and flexibility in specifying output.

## 4. Computer Programs for Demographic Analysis

This set of computer programs is designed to analyze the quality of population data as well as to calculate and estimate a variety of demographic parameters. These subroutines can be used for such purposes as estimating levels and trends of fertility and

APPENDIX D

AID'S PROJECT EVALUATION SUMMARY

**INSTRUCTIONS FOR COMPLETING FORM AID 1330-15 & 15A,  
PROJECT EVALUATION SUMMARY (PES)—PART I & II**

**EVALUATION PROCESS** - Officials of the Host Government and AID Mission should collaborate in periodic evaluation of the progress of each project. (For AID/W projects, participation of grantees is appropriate.) Timing of such regular evaluations should be linked to the key decisional requirements of the project, as listed in the Evaluation Plan included in the Project Paper and as confirmed in the Evaluation Schedule ~~of the Annual Budget Submission, otherwise annually.~~ A description of the evaluation process is found in Handbook 9, Part II, Chapter 8. *required change*

**PURPOSES OF SUMMARY** - The Project Evaluation Summary (PES) is prepared after each review to record information which is useful both to the implementors (including the Host Government and contractors) and to concerned AID/W units. It serves four purposes:

- (1) Record of decisions reached by responsible officials, so that those who participated in the evaluation process are clear about the conclusions, and so that headquarters is aware of the next steps.
- (2) Notice that a scheduled evaluation has been completed, with a brief record of the method and participation for future reference.
- (3) Summary of progress and current status for use in answering queries.
- (4) Suggestions about lessons learned for use in planning and reviewing other projects of a similar nature. The PES and other project documentation are retained in DS/DIU/DI and are available to project planners.

**CONTENTS OF SUMMARY** - A PES submittal has two parts, plus relevant attachments if any.

**PART I REQUIRED:** Form AID 1330-15 contains identifying information about the project and evaluation (Items 1-7), action decisions about the project's future (Items 8-10), and signatures (Items 11-12). Since the PES reports decisions, it is signed by the Director of the Mission or AID/W Office responsible for the project. Space is also provided for signatures of the project officer, host country and other ranking participants in the evaluation, to the extent appropriate.

**PART II, OPTION 1:** For regular evaluations, use continuation sheets to respond to Items 13-23 as outlined in the attached Form AID 1330-15A.

**PART II, OPTION 2:** For a special evaluation, the reporting unit may opt for a somewhat varied format, with a different sequence or greater detail in some areas, however, Items 13-23 should all be addressed.

**ATTACHMENTS:** As appropriate, reports of host governments, contractors, and others, utilized in the preparation of the evaluation summary, should be labeled A, B, C, etc., attached to the PES submittal (Missions are to submit 7 copies and AID/W Offices 7 copies) and listed under Item 23. Where it is necessary to transmit these source documents separately from the PES, Block 23 of the PES should note how this material was transmitted, when, number of copies and to whom.

**SUBMITTAL PROCEDURE:** Missions will submit the PES Facsheet, continuation sheets, and attachments under cover of an airgram which will be received by the Cable Room. AID/W Offices will submit the PES Facsheet, continuation sheets, and attachments to MC/PAV, Room B-930, NS under cover of a memorandum which cites any distribution instructions beyond the standard distribution. All AID/W Offices and most Missions will use the blank cut PES Facsheet and plain bond for continuation sheets, which can be reproduced on copiers. Those Missions preferring to use hecto, may order the form in hecto sets from AID/W, Distribution Branch. There will be a standard distribution made in AID/W of all field-originated PES's. Copies will be sent to the corresponding bureau's DP, DR, the country desk and Evaluation Office. Other copies will be sent to PPC, SER, PDC and DS (including DI and ARC). For AID/W-generated PES's, copies will be distributed to all bureaus.

PROJECT EVALUATION SUMMARY (PES) - PART I

APPENDIX B-1

Report System 11447

1. PROJECT TITLE		2. PROJECT NUMBER	3. MISSION/AID/W OFFICE
		4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)	
		<input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION	
A. First PRC-AG or Equivalent FY _____	B. Final Obligation Expected FY _____	C. Final Input Delivery FY _____	A. Total \$ _____	B. U.S. \$ _____	From (month/yr.) _____	To (month/yr.) _____
					Date of Evaluation Review _____	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., telegram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT		
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan, e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	A. <input type="checkbox"/> Continue Project Without Change		
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____	B. <input type="checkbox"/> Change Project Design and/or		
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Change Implementation Plan		
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____	C. <input type="checkbox"/> Discontinue Project		

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)	12. Mission/AID/W Office Director Approval	
	Signature _____	
	Typed Name _____	
	Date _____	

10

## PROJECT EVALUATION SUMMARY (PES) – PART II

The following topics are to be covered in a brief narrative statement (averaging about 200 words or half a page per item) and attached to the printed PES facesheet. Each topic should have an underlined heading. If a topic is not pertinent to a particular evaluation, list the topic and state: "Not pertinent at this time". The Summary (Item 13) should always be included, and should not exceed 200 words.

**13. SUMMARY** - Summarize the current project situation, mentioning progress in relation to design, prospects of achieving the purpose and goal, major problems encountered, etc.

**14. EVALUATION METHODOLOGY** - What was the reason for the evaluation, e.g., clarify project design, measure progress, verify program/project hypotheses, improve implementation, assess a pilot phase, prepare budget, etc? Where appropriate, refer to the Evaluation Plan in the Project Paper. Describe the methods used for this evaluation, including the study design, scope, cost, techniques of data collection, analysis and data sources, identify agencies and key individuals (host, other donor, public, AID) participating and contributing.

**15. EXTERNAL FACTORS** - Identify and discuss major changes in project setting, including socio-economic conditions and host government priorities, which have an impact on the project. Examine continuing validity of assumptions.

**16. INPUTS** - Are there any problems with commodities, technical services, training or other inputs as to quality, quantity, timeliness, etc? Any changes needed in the type or amount of inputs to produce outputs?

**17. OUTPUTS** - Measure actual progress against projected output targets in current project design or implementation plan. Use tabular format if desired. Comment on significant management experiences. If outputs are not on target, discuss causes (e.g., problems with inputs, implementation assumptions). Are any changes needed in the outputs to achieve purpose?

**18. PURPOSE** - Quote approved project purpose. Cite progress toward each End of Project Status (EOPS) condition. When can achievement be expected? Is the set of EOPS conditions still considered a good description of what will exist when the purpose is achieved? Discuss the causes of any shortfalls in terms of the causal linkage between outputs and purpose or external factors.

**19. GOAL/SUSGOAL** - Quote approved goal, and subgoal, where relevant, to which the project contributes. Describe status by citing evidence available to date from specified indicators, and by mentioning the progress of other contributory projects. To what extent can progress toward goal/subgoal be attributed to purpose achievement, to other projects, to other causal factors? If progress is less than satisfactory, explore the reasons, e.g., purpose inadequate for hypothesized impact, new external factors affect purpose-subgoal/goal linkage.

**20. BENEFICIARIES** - Identify the direct and indirect beneficiaries of this project in terms of criteria in Sec. 102(c) of the FAA (e.g., a. increase small-farm, labor-intensive agricultural productivity; b. reduce infant mortality; c. control population growth; d. promote greater equality in income; e. reduce rates of unemployment and underemployment). Summarize data on the nature of benefits and the identity and number of those benefiting, even if some aspects were reported in preceding questions on output, purpose, or subgoal/goal. For AID/W projects, assess likelihood that results of projects will be used in LDC's.

**21. UNPLANNED EFFECTS** - Has the project had any unexpected results or impact, such as changes in social structure, environment, health, technical or economic situation? Are these effects advantageous or not? Do they require any change in project design or execution?

**22. LESSONS LEARNED** - What advice can you give a colleague about development strategy, e.g., how to tackle a similar development problem or to manage a similar project in another country? What can be suggested for follow-on in this country? Similarly, do you have any suggestions about evaluation methodology?

**23. SPECIAL COMMENTS OR REMARKS** - Include any significant policy or program management implications. Also list titles of attachments and number of pages.

APPENDIX E  
ANALYTIC DESIGNS FOR EVALUATION STUDIES

## ANALYTIC DESIGNS FOR EVALUATION STUDIES

The analytic design of an evaluation study will help determine the answer to the question "What Happened?" and "Why?". The answer to the first question calls for the measurement of change by comparing the current state of the project against some standard that was established at an earlier time (e.g. against initial baseline conditions or BOPS). The answer to the second question is a bit more complicated. It calls for the measurement of change by comparing the current state of the project:

- against what happened in a similar but untreated (i.e., control) group with the same initial baseline conditions;
- against similar projects elsewhere;
- against planned targets;
- against some external or universally recognized standard such as the FAO human nutrition standards.

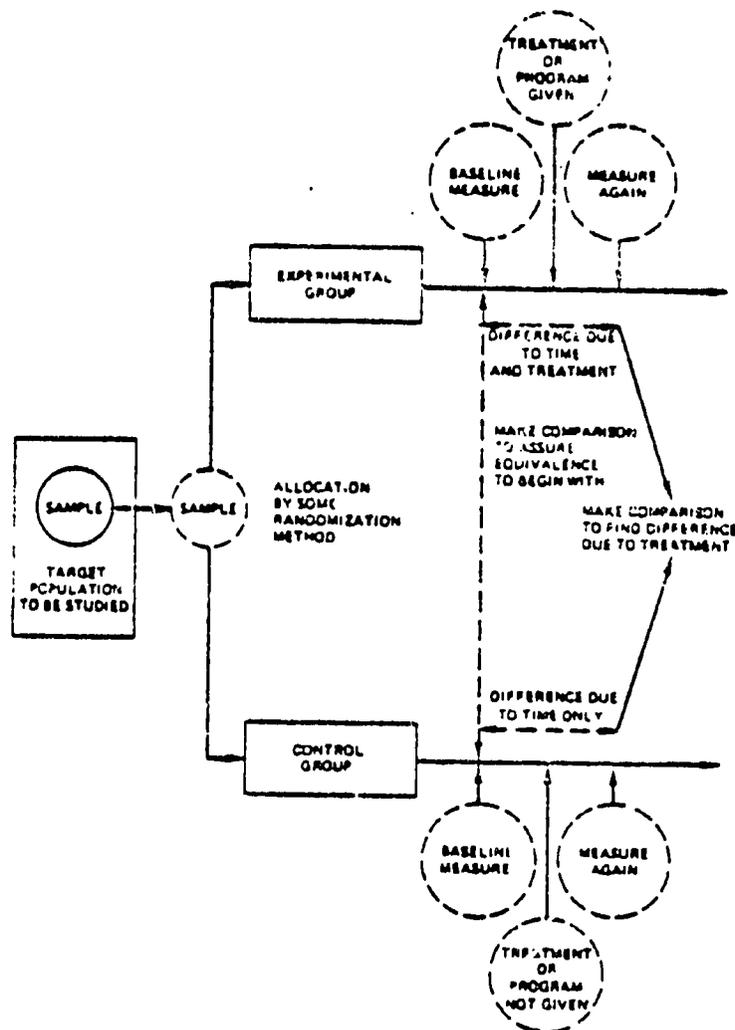
In addition, the analytical design of an evaluation study is a logical model which, when in operation in the real world can demonstrate the validity or the disproof of hypotheses about causes and effects which have been built into the design of the project. The particular analytic design that may be chosen to make this sort of comparison may be determined by technical considerations, by the samples of the population available; by the statistical techniques permissible, and sometimes--and possibly most importantly--by the motivation of the people making up the groups to be compared.

Analytic rigor and quality in the evaluation process is determined to a large extent by the choice of method. The paragraphs that follow briefly describe the major analytical methods used in evaluation, in descending order of rigor. (Note: this topic can become highly complicated and the reader is, therefore, referred to any good book on social experimental design).

Experimental design with random selection - This is the ideal method. Where circumstances permit, and this occurs very infrequently, the project designer should specify the random selection of treatment and control groups with similar initial socio-economic conditions and should provide for the use of similar progress indicators to measure changes in both groups. Evaluators should base their findings on a comparison of the results in the previously identified experimental and control groups. The differences--if any are found--will be attributable to the treatment given the experimental group in the project (see Figure 1).

- 91 -

# "IDEAL" STUDY DESIGN FOR MAKING COMPARISONS



The diagram shows a particular target population selected for study and a sample taken from that population. The sample next is divided into two groups by a scheme which assumes that the factors in the groups which might influence the results have, if not an equal, at least a probable chance of occurring in both groups. Tests are given, or baseline measures are taken, in both the experimental and control groups. This comparison is made to assure that the two groups are similar at the beginning. If there are differences, at least the differences are known. Then one group receives "treatment" or program input, and the other does not. The same measurements applied at the baseline are applied again after the "treatment" has had time to take effect. Then three more comparisons are made:

1. The experimental group is compared with itself before and after "treatment";
2. The control group is compared with itself before and after the "nontreatment" period;
3. The main comparison is really a comparison of the comparisons ( $3 = 2 - 1$ ).

This design permits independent, unbiased measurement of the effects of the treatment. It has the least likelihood of non-valid inferences of most of the designs given here. However, there is no way of determining the effects of being involved in an evaluation. Results with individuals involved in an evaluation can be generalized only to other situations in which identical evaluation activities are involved. To permit generalization of findings from this design, evaluation activities must be as unobtrusive (or non-destructive) to participants as possible.

One variant selects multiple groups by random assignment. Several groups (the experimental ones) are exposed to different treatments and one (the control group) is not. The performance of all groups is measured prior to the treatment period and following the treatment period. (See Figure 2 where:

- M = measurement
- N = non-random selection
- R = random selection
- T = treatment (the change agent in a project)

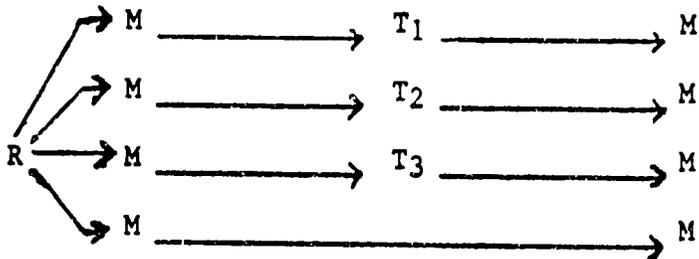


Figure 2

Another variant of Experimental Design with Random Selection is one with a Post Test only (no Baseline measures). Of the two groups formed by random assignment, only one is exposed to the treatment. The performance of both groups is measured after treatment only. (See Figure 3).

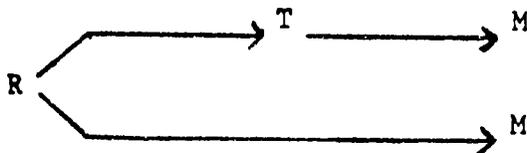


Figure 3

There is also an approach which is called Quasi-experimental design with non-random selection. This typically provides for comparisons between treatment and control group, except that (a) the groups are not randomly selected--they are purposely selected for having certain known characteristics, and (b) the selection of

control individuals or groups is sometimes made after the treatment rather than before. One of the problems with this design is that generalizations will be fully justified only for individuals who have been exposed to similar pretreatment measurement. Any of the techniques which attempt to adjust for pretreatment differences between groups are subject to assumptions which frequently cannot be justified. (See Figure 4).

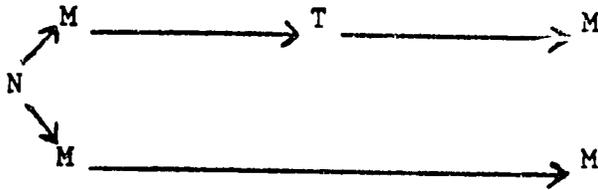


Figure 4

There is a variant of this Quasi-Experimental Design with Non-Random Selection—which uses only one group (i.e., no control group). A single group is tested immediately prior to and after the treatment. This is the simplest design and is probably used most frequently in AID's development efforts. (See Figure 5).

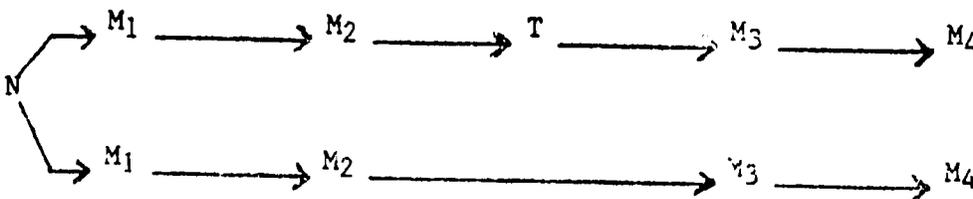


Figure 5

This design does not, in itself, control for nontreatment factors causing differences in the measures. The possibility cannot be ruled out that the characteristics of the group treated, or other events in the lives of members of the group during the treatment period may have caused the difference. Neither is there any control for the influence which exposure to the initial measurement might have had on post-test performance. This design relies heavily on using rational thinking to derive possible alternative explanations of any change found. If alternative explanations can be thought of which are plausible or persuasive, then the probability that the change was caused by the project is lower.

Still another variant of the Quasi-Experimental Design with Non-Random Selection uses a Two-Group Interrupted Time Series. (See Figure 6).

Figure 6



This design has no control for factors which might cause differences between pretreatment and post-treatment status. There is some control for "maturation", i.e., the tendency for measured performance to improve or degrade over time, to the extent that the amounts of maturation effect are identical for the two groups. Here again, however, evaluation activity could affect measurement. Generalizations are appropriate only to a population of individuals exposed to a series of similar measures.

This Quasi-Experimental Design with Non-Random Selection has a variant that uses only One-group in Interrupted Time Series. (See Figure 7).

Figure 7



This design provides for a series of comparable measurements both before and after treatment. But it does not control for factors which might influence difference between pretest and post-test values. Also, it may cause interaction between the evaluation measurement and the project treatment. Sensitivity to the measurement process or to the treatment or to the reinforcement of the effects which occur after treatment could be cumulative. In all of these experimental designs, a cause and effect relationship is hypothesized--with the project inputs being the cause and the project outputs being the effect. Or it might be that the project outputs are the cause and the project purpose is the effect. Verification is accomplished by the use of the indicators which measure the occurrence or non-occurrence of the predicted effects over time.

Probably the least rigorous method whereby projects are evaluated is the Case Study. Usually there are no baseline measures and there is no group with which the case study group may be compared. Beware of the fallacious reasoning behind the statement that "You can't make any comparisons; this is a unique group (or project)". The fallacy lies in the fact that if it has already been found to be "unique", a comparison must have already been made--against some other group or project.

APPENDIX F

ACRONYMS COMMONLY USED IN A.I.D. EVALUATIONS

ACRONYMS COMMONLY USED IN A.I.D EVALUATION

ABS	Annual Budget Submission
ADB	Agricultural Development Bank (also Asia Development Bank)
AID	Agency for International Development
AID/W	The Agency for International Development in Washington, D.C.
BIFAD	Board for International Food and Agricultural Development
BOPS	Beginning-of-Project-Status
CBD	Commerce and Business Daily
CDSS	Country Development Strategy Statement
CO	Contracting Officer
DSB	Development Support Bureau
EA	Environmental Analysis
EEOC	Equal Employment Opportunity Commission
EIS	Environmental Impact Statement
EOPS	End-of-Project-Status
FAO	Food & Agriculture Organization of the United Nations
FPR	Federal Procurement Regulations
FY	Fiscal Year (begins October 1)
GPOI	Inputs-Outputs-Purpose-Goal
HC	Host Country
IBRD	International Bank for Reconstruction & Development (World Bank)
IDB	InterAmerican Development Bank
IDCA	International Development & Cooperation Administration
IEE	Initial Environmental Examination
ILO	International Labor Organization of the United States
IRR	Intensive Review Request; also Internal Rate of Return; also Information Retrieval Request
IQC	Indefinite Quantity Contract
JCAD	Joint Committee on Agricultural Development
LAC	Bureau for Latin America and the Caribbean
LDC	Less Developed Country
MIS	Management Information System
MOE	Ministry for Education
MINAG	Ministry for Agriculture
OAS	Organization of American States
OMB	Office of Management & Budget
PAHO	Pan American Health Organization
PASA	Participating Agency Service Agreement
PES	Project Evaluation Summary
PDC	Bureau for Private Development & Cooperation
PID	Project Identification Document
PIL	Project Implementation Letter

PIO/C	Project Implementation Order for Commodities
PIO/P	Project Implementation Order for Participant Training
PIO/T	Project Implementation Order for Technical Services
PLAN	Ministry of Planning
PO	Purchase Order
PPC	Bureau for Program & Policy Coordination
PROAG	Project Agreement
PSC	Personal Service Contract
PVO	Private & Voluntary Organization
FRP	Request for a Proposal
RSSA	Resource Support Service Agreement
UN	United Nations
UNCTAD	United Nations Commission on Trade & Development
UNICEF	United Nations International Children's Emergency Fund
USG	United States Government
USAID	Mission of the Agency for International Development in another Country
WHO	World Health Organization of the United Nations



APPENDIX G

EVALUATION PROBLEMS FOR WHICH THERE ARE NO READY ANSWERS

EVALUATION PROBLEMS FOR WHICH THERE ARE NO READY ANSWERS

QUESTION: WHO SHOULD EVALUATE?

When A.I.D. was introduced its evaluation system in the 1960's, it was proposed that an Evaluation Officer position be created and that that person do all the evaluations for a USAID Mission. The proposition lost because it was felt such a person would be looking over everyone's work, and would be regarded (negatively) as a policeman. It was decided instead to have the project manager evaluate his or her own project. This, at least, was the person who knew most about the project. But since the Project Manager had been so personally involved in the project, he tended to look at it in a biased way. To minimize this potential bias, it was also decided to do two other things:

a. the Evaluation Officer who might not know the technical aspects of the project, but who did understand the evaluation process, would help the Project Manager do the evaluation.

b. a Project Review would be called at the end of the evaluation to review the methods of obtaining the data, the findings, and the conclusions that derived from the findings. The people to attend the Project Review would be as many as possible of the interested parties (host country, other donors, contractor, A.I.D., etc.). These two things would bring others' perceptions into the decision-making process and serve to reduce the Project Manager's influence on the evaluation of his own project.

This sort of question about "who should evaluate?" comes up again and again, whether it be a routine evaluation via the logframe, a special evaluation, or an impact evaluation. We don't really have any "school solutions" to the problem, but we can point to some pros and cons you ought to consider:

ADVANTAGES OF IN-HOUSE PERSONNEL FOR EVALUATION:

-- they are familiar with the programs, the staff and the operations. You don't have to educate them.

-- by and large they hold to the policies established by the U.S. government and A.I.D.

-- to obtain their services you need only get a release from their supervisor. You don't need additional money to pay them. They're already being paid.

On the other hand:

DISADVANTAGES OF IN-HOUSE PERSONNEL FOR EVALUATION:

-- their objectivity and candor is more open to question

-- you may be placing them in an awkward or embarrassing situation or one of conflict in his or her organizational role (e.g. suppose he finds low quality work on the project by someone to whom he is subordinate?)

-- what happens to his regular workload when he is taken off to evaluate something?

Similarly, there are certain:

ADVANTAGES OF OUTSIDE EXPERTS:

-- they probably have somewhat greater objectivity than in-house people because they are not so personally involved.

-- they are more likely to be free of AID's organizational bias since they do not belong to it.

-- they generally have easier access to decision-makers. (This is probably attributable to the cultural value that visitors get red-carpet treatment, whereas family members have to abide by the rules)

-- they are more likely to have the time available.

-- they are usually more familiar with recent advances in technology in their field of expertise.

On the other hand:

DISADVANTAGES OF OUTSIDE EXPERTS:

-- outsiders are "strangers" and tend to arouse anxiety among the in-house staff.

-- you may have to go through time-consuming negotiations to obtain their services.

-- you have to pay them.

-- you have to expend the time and effort to familiarize them with the project, the staff, the culture, etc.

-- they do not always have the language facility.

We don't believe in stereotypes and neither should you. None of the above is a hard and fast rule. They are only considerations you have to think about before you recognize the trade-off. Remember, the best solution may be to get the right "mix" of in-house and outside experts.

A.I.D. policy requires the collaborative style in evaluations, although some A.I.D. personnel are resistant to the idea, feeling that it is the U.S. taxpayers' dollar that has to be accounted for to Congress. It's their country and their project. Who are you to keep them out of the evaluation? In actuality, the same sort of tug-of-war re advantages and disadvantages can take place in trying to enlist host-country representatives to help in the evaluation. Think of it this way:

ADVANTAGES IN USING HOST COUNTRY PEOPLE IN EVALUATION:

- they know the people better
- they know the language better
- they know the geography better, and the history, and the culture
- they may know the project better

All of the above lead to better data. If you want to get valid and reliable data, you'd best get them on the team. Further, once they've been involved in the evaluation, the likelihood that follow-up actions will take place is greater.

On the other hand:

DISADVANTAGES OF USING HC PERSONNEL IN AN EVALUATION:

- they may not be as sophisticated as you'd like in data processing and analysis
- they may do things more slowly--adding time as a cost
- they may inhibit frankness

On balance, it is a rare project where the disadvantages of involving host-country personnel outweigh the advantages. Above all, the learning that can take place in an evaluation can be an important part of the development process, and that, after all, is why A.I.D. is there.

98

QUESTION: HOW MUCH SHOULD AN EVALUATION COST?

When someone is considering costs for an evaluation plan, or a scope of work, one of the questions to be confronted is whether one can afford to get the data required. There is a countervailing question: Can one afford not to get the data? If there is no evaluation, what will be known about the project's success or failure, and will that knowledge be sufficient to your purpose?

Making a budget for an evaluation is not any different from making a budget for any other task. There is no "rule-of-thumb" that can be provided which states that an evaluation should cost about 1%, or 3%, or 5% of total project costs. There are a few guidelines that may help when consideration is being given to costs.

Size of project--There is no one-to-one correlation that says that the bigger the project, the bigger the cost of the evaluation. It seems sensible however, to recognize that if a project is a costly one, it would be wise to ensure that a quality evaluation is conducted so that factual information is available to check on whether the returns justified the investment, and whether future similar investments will be justified.

Type of project--Experimental or pilot projects clearly merit close scrutiny to enable informed decisions about whether more resources should be expended in the same direction. The same holds true for a project which has mass benefits going to a large population. A high proportion of evaluation effort may be called for to assure that the benefits are really getting to the large number of recipients for whom they were intended.

Follow-on Question--It is difficult to imagine a follow-on project or phase without a thorough evaluation of previous projects/phases. Initial efforts must be evaluated, even if it is costly, before "more of the same" is done.

Experience Factor--The fact that someone else expended a certain amount on an evaluation is not sufficient rationale for how much to expend on a similar evaluation. What follows here should be taken with a large grain of salt. The statistics presented are provided only because some people need SOME sort of basis for comparison--even if it is not a very good one. Alors!

AID/W has a computer bank containing abstracts of hundreds of Special Evaluation Reports from 1971 to the present. A sample of 86 contracts was selected (i.e., not randomly) where:

-- the special evaluation was conducted between 1975 and 1979;

-- the contract costs were clearly attributable only to evaluation activities and not other technical services;

-- the contractor was known to have had an Indefinite Quantity Contract to conduct evaluations overseas;

-- the abstract clearly indicated that the activity was a special evaluation of a single project--not a regular (logframe) evaluation; and not an impact evaluation.

For that sample of 86 studies over the five-year period 1975 to 1979 the average cost of the contract with an outside organization ran \$27,565. The average cost in 1975 had been \$19,663. By 1978, the average had become \$23,924. The figure \$27,565 comes from a skewed distribution, because there were a few unusually high amounts (\$73,000, \$115,289, and \$116,408) which pulled the mean up. The range over the five years ran from a low \$1150 (for one person-week) to a high of \$116,408 (for 6 person-months). The average duration of the evaluation tasks under all 86 contracts ran 4.4 months. Of the 86 contracts, 27 had sufficient information permitting estimates of costs per person-month. They averaged \$6821 with a range from \$912 to \$19,000. These figures include international travel costs plus overhead on salaries.

QUESTION: HOW ARE INDICATORS DEvised?

Indicators are to be found in Column 2 of a logframe. They are made out of the measures that are acceptable, plausible, or credible aspects of the targets found in Column 1 of the logframe. For example: If the target at the Output, Purpose, or Goal level is "Increased Crop Yield," one has to sue the unit of measure for crop yield, which is Metric Tons (MT) per unit of land--usually per hectare (ha.). The unit of measure is then turned into an indicator by adding a verb, a time, and a magnitude. Thus:

<u>Target</u>	<u>Unit of Measure</u>	<u>Indicator</u>
Increased Crop Yield	Metric tons/ha	Rice crop will be increased to 50 MT/ha by 1985.

where 50 is the magnitude  
 1985 is the time  
 MT/ha is the unit of measure  
 "will be increased" is the verb

Two lists are given here as suggestions for the kinds of units of measure that could be used to formulate indicators to be used in regular evaluations using a logframe. The first list (I) has units of measure in different substantive areas which have been used at the output or purpose level of a project. The second list (II) has

units of measure which might be useable at levels higher than purpose, i.e., at the sub-sector or sector goal level. In neither case are they indicators in their present form. Even when converted to indicators, there is no guarantee that they will be appropriate for your project. Indicators have to be project specific, country specific, and technologically appropriate for the particular situation. Further, these two lists are not comprehensive. They comprise a small sample of the many potential indicators possible. Most important, they are SUGGESTIVE ONLY:

### I. Agriculture, General

Number of cooperating farmers testing innovations  
 Percent of arable land farmed  
 Percent of farmed land under irrigation  
 Farm families per agricultural extension agent  
 Agricultural productivity by hectare  
 Agricultural productivity by crop  
 Agricultural productivity by labor input  
 Percent GNP expenditure on agriculture  
 Annual food production per capita  
 Number of farmers visiting agricultural Research Center  
 X number of farmer owned ponds producing fish  
 No. of seed storage facilities built and being used  
 No. of tons of yield harvested (milled)

### Agriculture, livestock

Average weight of cattle offered for sale  
 Number of day old chicks produced  
 Number of market eggs produced  
 Number of market eggs produced  
 Number of swine farms established  
 Meat in project area available x days per month

### Agriculture, food crops

At least two higher yielding varieties of seed released for use  
 Export crop commands average price on world market  
 Two crop forecasts published  
 Farmer members of national seed growers association

### Farm/Market Roads

Vehicle utilization rate  
 Collections at toll points for movement of commercial vehicles  
 Kilometers of improved road per square km increased by 16% by 1979  
 Miles of paved road as a % of total roads  
 % of target population within--hours normal travel from market

50

Maternal & Child Health

Life expectancy at birth  
Maternal mortality rate  
Infant mortality rate  
Number of people serviced by MCH facility  
Number of clinics providing MCH/FP services

Sanitary Engineering/Potable Water

No. of house in village with water service  
Garbage collected  
Incidence of water-borne diseases  
No. of days water was rationed  
Rabies control equipment available

Nutrition

Eligible children receiving nutrition education  
Culturally acceptable nutritious food available  
Meat in project area available  
One trained meat inspector in each packing plant

Family Planning

Mobile FP unit is on the road x number of days per month  
National birthrate  
% of fertile age women practicing FP  
Rural health clinics added FP services  
MOH unit able to compile and analyze FP statistics  
FP services available  
Number of commercial outlets for FP devices per 1000 population

Education

Graduates immediately enter employment  
Returned participants employed at or above great X civil civil  
service level  
Number women being trained to teach  
Student-teacher ratio in secondary schools  
Schools have local budget to operate

General Economic Development

GNP spent on R & D  
Technological R & D institute able carry out pre-investment  
evaluation  
Existence of science ministry or committee for science policy  
Capacity of electric power generating facilities  
Government expenditure on health as % of total budget

Rural Development

Percentage of communities electrified  
Four recommended range management practices in effect  
Number of farmers using research centers' advisory service  
System of off-station agricultural trails established  
Sales of irrigation equipment in pilot area  
Tax collections in provinces as % of total collections

Quality of Life

Labor legislation expanded to include agricultural workers  
Number of credit union members  
% farmers on own land  
Equitable representation of tribes among staff and trainees  
LDC staff directing and operating program without outside assistance  
% of rural population within X hours of normal travel from main road  
PQLI--(Physical quality of life index)--This is a recently developed global measure which is a combination of scaled measures of infant mortality, life expectancy, and adult literacy. (See: "The PQLI: Measuring Progress and Meeting Human Needs by Morris David Morris and Florizel B. Liser, Overseas Development Council Communique No. 32, ODC, 1717 Massachusetts Avenue, NY, Washington, D.C. 1978)

Women in Development

Percent females working for salaries and wages  
Level of literacy of female population over 15 years  
Females represent X% of students enrolled in vocational courses  
The number of girls who have access to education  
The number of women in middle-level Ministry positions  
The number of female participants sent to the U.S. for training

II. The following list is an illustrative list of measures that have been used at levels higher than purpose (sub-sector or goal levels). Remember, they are not indicators in their present form, but could become indicators:

-- IF they were plausibly related to the statement in column 1 of a logframe, and

-- IF they were independent of measures at other levels, and

-- IF they were objectively verifiable in your project, and

-- IF they were targetted by adding a time, magnitude, and a verb.

. 97'

Illustrative Socio-economic Measures of Various Substantive Areas  
Sector, Subsector and Target Group Levels:

A. Economic Growth

1. Per capita GNP at market price, by sector, by subsector, and in real terms.
2. Per capita GNP growth rates, at market price, by sector, by subsector, and in real terms.

B. Income

1. Per capita income, by sector, by subsector, and in real terms.
2. Per capita income growth rates by sector, by subsector, and in real terms.

C. Income Distribution

1. Income of target group and other project beneficiaries measured against national average and other economic and social groups.
2. Income of target group and other project beneficiaries measured against a poverty index.
3. Changes over time, differential growth rates.

D. Employment -- Unemployment

1. Employment of target group and other project beneficiaries.
2. Employment of target group and other project beneficiaries measured against national coverage and other economic and social groups.
3. Changes over time, differential growth rates.
4. Amounts and rates of migration occasioned by employment opportunities generated by project.
5. Investment cost of jobs generated by project.
6. Changes in wage rates occasioned by project.
7. Labor output ratio of project.

E. Savings and Consumption

1. Per capita savings and consumption of target group and other project beneficiaries.
2. Savings and consumption of target group measured against national average and other economic and social groups.
3. Changes over time, differential growth rates.

## F. Agriculture

1. Production, yield, losses (restrictions per unit of land).
2. Factor productivity, e.g., production per unit of land.
3. Productivity per unit of labor.
4. Changes in land usage.
5. Changes in farm labor patterns.
6. Production/productivity in project area compared to other economic and social groups, other geographic areas, other types of crop (e.g., cereal grain, fibre, livestock).
7. Access to technology/technical education.
8. Access to institutional/technical services, e.g., ratio of farmers to extension workers, number and percentage of farmers with access to irrigation.
9. Access to factor inputs, including agricultural credit.
10. Cost of factor inputs.
11. Changes in farmgate prices.
12. Ratio of factor costs to farmgate prices, to income, to farm investment.
13. Access to markets, transport, storage facilities.
14. Access to central government investment and resources.
15. Changes in farmer income (see also B and C).

## G. Education

1. Access to education by target group.
2. Access to education by target group measured against national average and other economic and social groups and age groups.
3. Enrollment patterns, education completion patterns, length of instruction.
4. Central, regional and local government expenditures, capital and recurrent, by levels of education and per student.
5. Production of qualified teachers--qualified/underqualified teacher ratios--teacher/student ratios--student/classroom ratios.
6. Literacy rate of target group and comparison with other economic and social groups.
7. Physical facilities.
8. Project expenditures per beneficiary--student.

## H. Health

1. Crude death rate.
2. Life expectancy at birth.
3. Infant mortality rates.
4. Child death rates.
5. Rates of morbidity--days sick per year.

6. Proportion of deaths due to malnutrition, communicable and water-borne diseases.
7. Per capita consumption of water (liters/day).
8. Percentage of population with access to potable water; location and types of water points.
9. Percentage of population having access to basic health facilities.
10. Average number of visits to health clinic facilities per capita per year.
11. Public health expenditures per capita and per patient (beneficiary).
12. Public health expenditures as proportion of total expenditures.
13. Ratio of population per medical personnel and per hospital bed.
14. Hospital bed vacancy rate.
15. Ratio of paramedical personnel per physician.
16. Project expenditures per beneficiary--patient.

I. Nutrition

1. Per capita daily intake of calories.
2. Per capita daily intake of protein.
3. Percent of protein intake from animal sources.
4. Proportion of the population below minimum nutrition standards, by age and sex.
5. Percentage of household expenditures spent on food and potable water.
6. Public expenditures on food subsidation programs and on development of potable water sources; cost per beneficiary.

J. Population

1. Crude birth rate.
2. Total fertility rate.
3. Natural rate of population growth.
4. Percentage of population under 15 years old.
5. Population size.
6. Population density per square kilometer of arable land.
7. Population density per square kilometer of land.
8. Percent of women of reproductive age who accept family planning methods.
9. Rate of growth of new family planning acceptors.
10. Population per family planning worker.
11. Public expenditures on family planning as percentage of public health expenditures and total public expenditures.
12. Public expenditures on family planning per capita and per acceptor (beneficiary).

100

13. Socio-economic, institutional and legal determinants of fertility decline, such as age of marriage, educational and employment opportunities for women, tax policies, old-age support systems, etc.

14. Project expenditure per beneficiary--acceptor.

K. Rural Development

1. Distribution of land ownership and tenures.
2. Rural industrialization.
3. Monitization.
4. Access to institutional services.
5. Employment, including non-farm employment

L. Women in Development

1. Female adult literacy rate.
2. Females as percent of total illiterates.
3. Female enrollment as proportion of school-age female population, by level.
4. Femalees as percentage of total enrollment, by level.
5. Proportion of teachers who are female, by level.
6. Female labor force participation rate.
7. Rates of female unemployment and underemployment.
8. Female employment as percentage of total employment, by economic sector.
9. Within agriculture, female days of labor/ha. as percentage of total days of labor/ha. by type of cultivation.
10. Average female wage as percentage of average male pay.
11. Percentage of women of reproductive age with knowledge of family planning and percentage utilizing contraceptives.
12. Total fertility rate.
13. Cultural and legal constraints against female participation in educational and employment opportunities.
14. Percentage of rural-urban migrants and emigrants who are female.

M. Housing

1. Average number of persons per room.
2. Average number of rooms per dwelling.
3. Proportion of dwellings with 3 or more persons per room.
4. Proportion of dwellings with "temporary" or inadequate materials.
5. Proportion of dwellings with piped water.
6. Proportion of dwellings with electricity.
7. Proportion of dwellings with sewerage connections.
8. Proportion of dwelling owned/rented by inhabitant.

9. Percentage of household expenditures spent on housing, by type of tenancy.
10. Government expenditures on low-cost housing as percentage of total housing expenditures.
11. Average cost per beneficiary of public low cost housing projects.

**APPENDIX H**

**MEASURING PROGRESS FOR WOMEN:  
WOMEN-IN-DEVELOPMENT ISSUES IN EVALUATION**

## MEASURING PROGRESS FOR WOMEN: WOMEN-IN-DEVELOPMENT ISSUES IN EVALUATION

How do you measure progress for women in development? Many approaches to measuring and evaluating progress for women in participation and impact are presently available and should be integral to all design, implementation, and evaluation activities.

The importance of women's participation in the design and implementation of development projects is of critical importance to project success. The fact that women's participation is a development issue that goes far beyond feminine concerns alone has been well documented in the development literature. Our projects will not work, if the special needs of one-half of the target groups are not taken into account during design and implementation.

Similarly in the evaluation process, the "lessons learned" as to what works and what doesn't work diminish accordingly if we fail to measure the impact of the project on 50 percent of the target group.<sup>1</sup> Women everywhere have special needs, face unique problems, and confront particular socioeconomic and cultural constraints that inhibit their taking full advantage of the benefits of development. Failure to measure how our projects have addressed the needs, problems, and constraints facing half the target group is failure to measure impact. Our efforts to build a body of knowledge about what development strategies work best for both men and women can advance to the fullest only if we taken the opportunity to learn about both halves of the target group. The following are some questions that might be asked during the project design, implementation, and evaluation processes that will assist in the measurement of progress for women.

### A. Questions to be Raised During Project Design and Review

Good baseline data collection and social analysis which at the outset provides information about women's needs and women's roles, will be critical for later measuring the impact of the project on women. Where it is not practical to gather extensive baseline data, the social analysis will be especially important.

#### 1. Baseline Data Collection

(a) Has baseline data, disaggregated by sex (i.e., broken down for each indicator into separate statistics for male and

<sup>1</sup>For more comprehensive discussion, see Assessing the Impact of Development Projects on Women, AID Program Evaluation Discussion Paper No. 6, Bureau for Program and Policy Coordination, May, 1980.

104

female, e.g., women's literacy rate = 5%; males = 50%, been collected for this project?

(b) What sources (e.g., indigenous institutions, recent surveys, studies) for baseline data, disaggregated by sex, already exist which could be noted or included in the project paper?

(c) What baseline data has been collected or is available on the number of households headed by men and the number headed by women in the project area? (Women-headed households, estimated to number from a quarter to a third of all rural households, have special access and labor constraints which projects need to address).

## 2. Social Analysis

(a) What aspects of the local culture (e.g., purdah or female seclusion) may prevent women from taking advantage of project benefits? How can the project be designed to take these aspects into account?

(b) What are the unique sectoral (e.g., agriculture, health) problems that women face? Does the proposed project represent the best solution for resolving these problems? A viable solution? Why or why not?

(c) What is the sexual division of labor (e.g., paid and non-paid work in fields, industry, and home performed by men and by women) in the culture and in the region for which the project is being developed?

(d) What are the prevailing local wage rates and income levels for men and women and to what extent do women have control over the income they earn? On what do men and women spend the incomes that they earn?

(e) What are the local un- and under-employment levels for men and women?

(f) What are the local patterns of distribution of labor, income and information among members within each household? What are the patterns of food distribution and consumption within each household? What are the patterns of decision-making in the household? (Not all societies are characterized by e.g., family income pooling or by equitable food distribution at meal times. Evaluators should be sensitive to cultural patterns and variations within the household that potentially may prevent women from taking advantage of project benefit.)

B. Questions for Evaluators Regarding Participation of Women in Project Planning and Implementation

1. What did the project paper say regarding:
  - women as beneficiaries?
  - women as participants?
  - (Was any information presented disaggregated by sex?)
2. If a social feasibility analysis was done for the project, what did it say about women?
3. Were any women involved in the project design? If so, in what way?
4. Were any women among the personnel of the agencies or firms that implemented the project?
5. In what way did host-country women participate in implementing any parts of the project?

C. Questions Regarding Actual Impact of Project on Women

To evaluate project impacts on women, evaluators must speak directly with women beneficiaries. In many cases, this will involve having a woman on an evaluation team in order to facilitate such communication. If no women are on the team, evaluators should consider speaking with groups of women at one time, or with leaders of women's organizations. Most communities contain some form of organization among women--if not formal, then informal networks. Evaluators should also speak with those who are indirectly affected by the project. It is similarly important to interview persons in families other than the male head-of-household, otherwise it is difficult to identify indirect impacts. Moreover, given the several division of labor, one household member cannot always accurately reflect of the details of other members' activities.

1. What do previous evaluations or reports say about the impact of this project or similar projects on women or the participation of women?
2. What are the social and economic roles of women that the project should have taken into consideration in order to have a beneficial impact on women? (For example, to what extent are women involved in economic activities beyond traditional household concerns? To what extent do these activities supplement household income? What kinds of economic activities are these, e.g., agriculture, handicrafts, cooperative and marketing associations?)

3. In what ways did women share in the services or other outputs that the project provided? (e.g., Did they get credit? Training? Instruction? Goods?) How do their numbers compare with those of men in each category?

4. What immediate benefits accrued to women as a result of the project (and to men in the same categories)? Did the women themselves regard these as benefits? (What do the women say about this? i.e., this should not be simply the assertion of either local men or of the evaluation team.)

5. What longer-range benefits have accrued to women as a result of the project? In an analytical sense and in the context of the particular culture, how have women been affected by the longer-range benefits of the project? (For example, if the project increased women's income, do the women retain control of the extra income or is the extra income taken over by the husbands?)

#### D. Indicators

The precise indicators that evaluators will develop should reflect their cultural context, but the following are some illustrative indicators which may be used to assess the projects benefits for women.

##### 1. Hard Indicators

- AGRICULTURE:
- amount of individual income increased
  - changes in proportional (wife-husband) contribution to household
  - amount of time reduced as a result of new technology introduced
  - numbers of contacts with extension officers
  - adoption of crop recommendations
  - information gained
  - land acquisition
  - increases in productivity
  - number of shareholders in cooperatives
  - gains in marketed output

-- increases in food consumption for household members

-- credit recipients

**EMPLOYMENT:**

-- numbers trained

-- numbers successfully placed in jobs

-- numbers retained in job after a certain time period

-- amount of individual income increased

-- child-care availability (number of places in employment-supportive institutions)

-- changes in proportional (wife-husband) contribution to household

**EDUCATION:**

-- numbers enrolled in formal education

-- numbers enrolled in nonformal education

-- numbers literate

-- numbers of diplomas received, at different levels

-- numbers passing examinations

-- number of dormitory places available for each sex

**HEALTH:**

-- numbers of patients served

-- time spent with patients

-- numbers trained

-- maternal mortality

-- infant mortality

-- information gained

- adoption of recommendations
- quantity of food eaten
- quality of food eaten

## 2. Interpretations and Soft Indicators

The most useful part of an evaluation is not simply the presentation of statistical differences between men and women, but the interpretation of why these differences occur and how these differences affect the well-being of men and women. It is in the interpretation of the statistics that the guidance will be found for redesign or future design efforts. The following are some questions that might be asked to assist in explaining and interpreting the hard indicators.

(a) Have women's and men's relationships with each other changed as a result of the project?

(b) Are opportunities, options, and resource for men and women increasing or decreasing because of the project?

(c) Are women's and men's positions in the household or in the community enhanced or diminished because of the project?

(d) Are women's and men's access to local assets (e.g., land) increased or decreased because of the project?

(e) Has the project increased women's access to other information networks?

(f) Has the project undermined or reinforced traditional institutions (e.g., the extended family) that provide support for men and women in their traditional household and economic roles?

(g) Has the project undermined the traditional allocation of authority in the family or the control over particular household tasks?

## E. Questions for the "Lessons Learned" Section of All Evaluation Reports

1. Did the project take into consideration the social and economic roles of women?

2. How might the project have been better designed to improve the participation of and effect upon women?

3. How might it have been better implemented to accomplish the same objectives?