

A SUMMARY OF THE
VIDEOTAPE PRESENTATION

THE LOGICAL FRAMEWORK

A Project-Level Design Tool

PREPARED BY
RICHARD L. RAMEY

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PASITAM: c/o Geology 545, Indiana University, Bloomington, Indiana 47401 U.S.A.

The Logical Framework: A Project-Level Design Tool

The Agency for International Development uses a tool known as the *Logical Framework Matrix*, or *Logframe*, as the means of imposing a format upon its projects. The aim is to devise and present a *rational* design and description of development projects.

In this format, the key *causal relationships* in a project must be stated, along with the *assumptions* about the effects of the project's environment. In principle, the two statements will identify the necessary and sufficient conditions of project success. In practice, the reliability of the Logical Framework is always limited by the ability to predict events, including the effects of interventions.

The Logframe also requires that project designers present objective indicators of progress and the means of verifying them.

In the final analysis, the Logframe is a tool for organizing and applying expert knowledge and judgment. It is no substitute for them.

CAUSAL LINKAGES

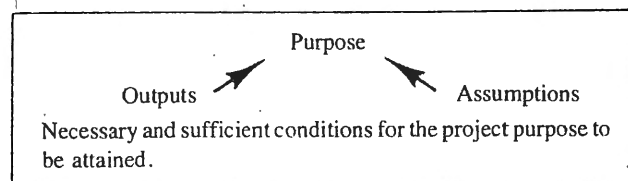
In a Logframe, project designers must explicitly state the projected causal (means-end) linkages between inputs and outputs, between outputs and purpose, and between anticipated purpose and goal. These statements, of course, are hypotheses.

A hypothesis is a conditional statement of cause-effect relationships. A good hypothesis is based on the best available evidence. But it is inevitably a contingent statement. The Logframe contains a sequence of such statements, amounting to a set of working hypotheses that are the core of a project design.

These hypotheses are qualified by the *assumptions* upon which a project is based. For example, producing the intended outputs will not cause the achievement of a

project's purpose—unless the assumptions about conditions over which the project has limited or no control prove to be valid (see figure 1).

Figure 1



SOURCE: Herbert D. Turner, U.S. Agency for International Development, "Principles and Methods of Program Evaluation," *IDR/Focus* (1976/3): 28.

This approach to rational project design requires an explicit action plan, based on the idea that certain aims are desirable and that specified means will probably achieve them. Sound means (including the effective management of resources) and germane assumptions about the project environment are equated with project success.

The necessary means are stipulated. Project *inputs* are identified in specific, concrete terms. They may include personnel, equipment, commodities, training, funding, contract services, etc.

Astutely managed in a supportive setting, it is posited that these inputs will produce *outputs*. Outputs are *specific intended* results, for example, trained in-country staff, handpumps, irrigation systems, rural road networks, village health clinics, and drainage schemes.

Outputs are the means to a project's *purpose*. The purpose of a project is not to produce something—it is to solve a problem. This will be done if an appropriate project is completed on time. The purpose of any project can be formulated by changing a problem statement

**LOGICAL FRAMEWORK
FOR
SUMMARIZING PROJECT DESIGN**

ANNEX I

Est. Project Completion Date FY 1981
Date of this Summary October 29, 1976

Project Title: RURAL CLEAN WATER SUPPLY

	NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS										
If Purpose, Then Goal	Sector Goal: The broader objective to which this project contributes: Overall improvement in the level of health in Pakistan.	Measures of Goal Achievement: Significant improvements in all key health indicators.	GOP health statistics.	Concerning long term value of program/project: Other necessary health and nutrition activities will be undertaken.										
	Program Goal: Reduction in the incidence of water-related illnesses among the rural population.	A significant decrease in the indicators of cholera, dysentery, typhoid, amoebiasis, hepatitis, intestinal parasites, eye, skin and genito-urinary infections.	GOP/AID special project evaluation.											
If Outputs, Then Purpose	Project Purpose: Increased and continued use of clean water in rural areas of Pakistan.	Conditions that will indicate purpose has been achieved: End of project status. Project facilities constructed, adequately maintained, and utilized by the intended beneficiaries at an equitable cost.	Inspection of villages, observations and interviews.	Affecting purpose-to-goal link: The facilities provided, and improved health understanding, will deter causal use of the old polluted sources.										
	Outputs: Handpumps, village piped water and drainage schemes installed, operating and maintained.	Magnitude of Outputs necessary and sufficient to achieve purpose. 100,000 handpumps, piped water systems for 500,000 persons, drainage systems for 500,000 persons, 3 waterworks operators' training centers installed and operating.	AID field monitoring and GOP records.	Affecting output-to-purpose link: Clean, convenient water supply will produce the expected health improvements.										
If Inputs, Then Outputs	Inputs: Activities and Types of Resources Handpumps, pipes, pumps, motors, construction materials, installation services (from both GOP and villagers).	Level of Effort/Expenditure for each activity. <table style="width: 100%; border-collapse: collapse;"> <tr> <td>100,000 handpumps</td> <td style="text-align: right;">- \$20,000,000</td> </tr> <tr> <td>Piped water systems and training centers</td> <td style="text-align: right;">- \$13,333,000</td> </tr> <tr> <td>Rural drainage systems</td> <td style="text-align: right;">- \$ 6,667,000</td> </tr> <tr> <td>Monitoring</td> <td style="text-align: right;">- \$ 200,000</td> </tr> <tr> <td style="text-align: right;">Total</td> <td style="text-align: right;">\$40,200,000</td> </tr> </table>	100,000 handpumps	- \$20,000,000	Piped water systems and training centers	- \$13,333,000	Rural drainage systems	- \$ 6,667,000	Monitoring	- \$ 200,000	Total	\$40,200,000	AID field monitoring and GOP records.	Affecting input-to-output link: Local councils collect sufficient water charges to assure adequate maintenance of piped water systems. Satisfactory incentives established for handpump repair and replacements by the beneficiaries.
100,000 handpumps	- \$20,000,000													
Piped water systems and training centers	- \$13,333,000													
Rural drainage systems	- \$ 6,667,000													
Monitoring	- \$ 200,000													
Total	\$40,200,000													

into a statement of the appropriate solution. For example, if the problem is the lack of clean water and certain consequences thereof, then the project purpose will be to provide clean water and its effective use. Other project purposes might be increased agricultural yields, better access to markets, or health services for a target population.

Achieving a project's purpose also contributes to broader program or sector *goals*. Such goals furnish an underlying rationale for a project. For example, if a project purpose is to provide clean water, the *program goal* could be a reduction in water-related disease. The *sector goal* could be an overall improvement in health (see figure 2).

Figure 2

Development Hypotheses	NARRATIVE SUMMARY
	<p>Sector goal: The broader objective to which this project contributes: Overall improvement in the level of health in Pakistan.</p> <p>Program Goal: Reduction in the incidence of water-related illnesses among the rural population.</p> <p>Project Purpose: Increased and continued use of clean water in rural areas of Pakistan.</p> <p>Outputs: Handpumps, village piped water and drainage schemes installed, operating and maintained.</p> <p>Inputs: Activities and Types of Resources: Handpumps, pipes, pumps, motors, construction materials, installation services (from both GOP and villagers).</p>
Manageable Interest	If Inputs then Outputs / If Outputs then Purpose / If Purpose then Goal

PROGRESS INDICATORS AND VERIFICATION

A good project design includes arrangements for verifying causal relationships for answering: are inputs resulting in desired outputs, and are outputs leading to project purpose? To answer these questions, concrete indicators must be identified, along with means of verification, so that actual results can be compared with planned progress.

The project design must state how indicative data will be collected. They may come from statistics, sur-

veys, reports, records, inspection, observations, or interviews. Such data gatherings can be costly and difficult. Without it, however, results cannot be compared with aims.

Progress indicators must be applied to inputs, outputs, purpose achievement, and contribution to larger goals. Certain input indicators are easy to identify and measure. These are usually the resources devoted to a project. Inputs can be listed by manhours, cost, bushels, or whatever measure that will quantify resources. Examples of some input indicators are:

Level of Effort/Expenditure for Each Activity	
100,000 handpumps	\$20,000,000
Piped water systems and training centers	\$13,333,000
Rural drainage systems	\$ 6,667,000
Monitoring	\$ 200,000
	\$40,200,000

Output indicators may also be easy to establish and measure. Generally, it is important to indicate the magnitude of outputs. Here is an example of output indicators:

Magnitude of Outputs Necessary and Sufficient to Achieve Purpose
10,000 installed handpumps, piped water systems for 500,000 persons, drainage systems for 500,000 persons, 3 waterworks operators' training centers installed and operating.

Purpose indicators, sometimes called End of Project Status (EOPS) indicators, describe the terminal conditions that will reveal whether a project has met its immediate aims. Such indicators may be relatively difficult to identify and measure. Purpose indicators may be either quantitative or qualitative. If qualitative indicators are used to measure results, they must be objectively verifiable through observation.

If project purpose is to increase the use of clean water in a rural area, the EOPS indicator might be:

Conditions that will indicate purpose has been achieved: End of project status.
Project facilities constructed, adequately maintained, and utilized by the intended beneficiaries at an equitable cost.

As a project designer or design team moves up the hierarchy of causal linkages, establishing and applying indicators tend to become more difficult. Project goal indicators are often troublesome because goals usually

result from more than one project. As a result, it can be difficult to measure the large impact of a single project. For example, if the program goal is to reduce water-related illnesses, goal indicators might include:

A significant decrease in the indicators of cholera, dysentery, typhoid, amoebiasis, hepatitis, intestinal parasites, eye, skin and genito-urinary infections.

If the sector goal is to improve health level, an indicator might be:

Significant improvements in all key health indicators.

ASSUMPTIONS

Projects are designed and implemented in uncertain and complex environments. Yet a project's environment will affect project success. Insofar as possible, assumptions about environmental effects must be stated. For instance, every project designer makes assumptions about the quality, timing, and cost of inputs. He or she may assume that beneficiaries will support the project in certain important ways and that the project will therefore become self-sustaining. It is usually assumed that the host government will adopt and apply policies that contribute to project purpose and goals.

Such assumptions qualify the hierarchy of statements about relationships between inputs, outputs, purpose, and goal. Outputs depend upon inputs and assumptions about input-output relationships. As noted earlier, purposes stem from outputs, provided that assumptions about output-purpose relations are sound.

If key assumptions fail to hold, a project is likely to be impaired. During implementation, statements about assumptions are the potential sources of warning signals. When assumptions begin to slip, a project may have to be redesigned or reassessed.

PROBLEMS

The Logframe aims to make the key features of a project explicit, so they can be judged and tested and so

they can guide implementation efforts. It forces project designers to confront the common problems of complexity and uncertainty.

A common design problem is to identify and analyze input-output-purpose relationships. This is usually the result of inadequate knowledge of cause-effect relationships. For example, a sum of money (an input) may be used to establish credit facilities (an output) to increase crop production (a purpose). If the target group does not use the output, or uses it for other purposes, the project purpose will not be met.

Another design problem involves faulty assumptions. The credit project may have included incorrect assumptions about incentives to which the target group will respond.

There are also very real problems of setting purposes and identifying goals. These may sometimes be resolved by referring to Development Assistance Programs (DAPs), sectoral studies, and other sources of strategic guidance. Such analyses are supposed to indicate key problems and opportunities which will be addressed in part through project-level activity.

Designers often propose heroic purposes. An overly ambitious purpose places an impossible burden upon a project's means. It is important to set a purpose which is *realistic* and *attainable* with the proper management of inputs and outputs, under sensible assumptions about the project's environment.

CONCLUSIONS

The Logframe is not just a form to fill out: it is the summary analysis of a project design. It states projected causal relationships and underlying assumptions about the factors affecting them. It encourages designers to be specific, concrete, and realistic in describing means-end relations. It establishes a basis for project review by providing for indicators which allow comparisons of actual and intended effects. These indicators establish the foundation for project evaluation. Through evaluation, the hard-bought lessons of experience can be garnered for future project design.

The Logframe can be applied to any project. In the hands of experienced professionals, it can be a powerful tool of project design and execution.

