

# Logical Framework Analysis

Adapted in part from "Designing Projects and Project Evaluations Using The Logical Framework Approach" by Bill Jackson

## Objectives

- To introduce Logical Framework Analysis (LFA) and its uses
- To become familiar with the main steps involved in conducting an LFA
- To provide the necessary background for the working group exercise on the Project Planning Matrix

## Main Points

- Logical Framework Analysis is one of several methodologies for developing programmes or projects.
  - LFA consists of 4 main steps:
    - Situation Analysis
    - Strategy Analysis
    - Project Planning Matrix
    - Implementation
  - Within each of these steps are a number of activities that help in formulating the logic and sequence of the intended programme or project.
  - LFA has a strong participatory component in the situation analysis calling for the involvement of different actors in formulating and developing a programme or project. In this regard it is in keeping with the principles of the bottom-up approach in the CCD.

## What is LFA?

There is no set methodology for developing and implementing a dryland management programme. There are many techniques and methodologies available but there is not, and most likely never will be, a single blueprint.

The logical framework (or logframe) approach provides a set of designing tools that, when used creatively, can be used for planning, designing, implementing and evaluating projects. The purpose of LFA is to undertake participatory, objectives-oriented planning that

DURATION: 30 Minutes

ACTIVITY: Presentation on the main features and steps in conducting an LFA

MATERIALS: Prepared presentation on LFA, slides, flip charts with skeleton for problem trees and a LogFrame

## LogFrame Approach

- (1) Methodology to structure the project planning process
- (2) Planning is an iterative element of Project Cycle Management
- (3) Emphasis on the analytical steps within the planning process
- (4) Organises all relevant information in a systematic overview

*Taken from Martin Krause, UNDP-GEF, Monitoring and Evaluation Co-ordinator*

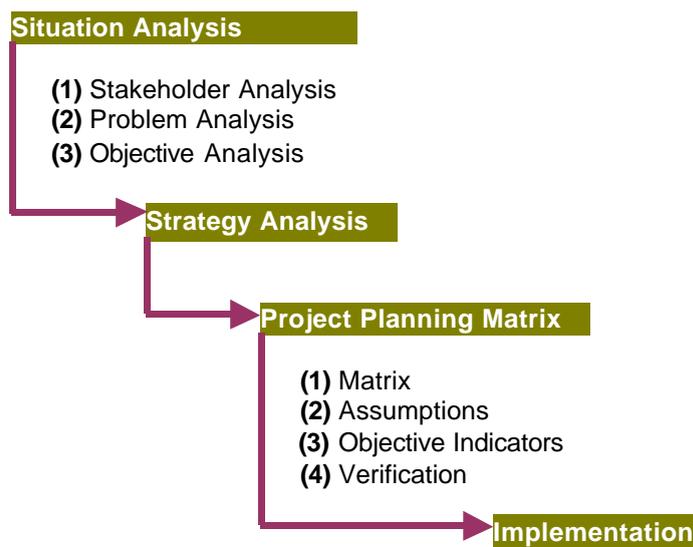
spans the life of project or policy work to build stakeholder team commitment and capacity with a series of workshops.

The technique requires stakeholders to come together in a series of workshops to set priorities and plan for implementation and monitoring.

It provides in-depth analysis of project objectives, outputs, and activities. A major component of it (the project planning matrix or PPM) results from stakeholder workshops that are scheduled through the life of a project to encourage brainstorming, strategizing, information gathering, and consensus building among stakeholders. As such, LFA provides a structured, logical approach to setting priorities and determining the intended results and activities of a project.

### Steps in an LFA

There are 4 major steps in conducting an LFA, each with a set of activities to be carried out as outlined below:



What follows is an introduction to the first three steps to understand the general principles in undertaking an LFA.

### Situation Analysis

The LFA approach begins by analysing the existing situation and developing objectives for addressing real needs.

A situation analysis has as its core task to find out the actual state of affairs with respect to an issue to be analysed; it is focussed by problems and an attempt to understand the system which determines the existence of the problems. As problems are always connected to

unfulfilled objectives, a situation analysis comprises of an Objectives'- as well as a Problems'-Analysis. And as it is always people's problems and objectives which make up a situation, the analysis includes a Participants'-Analysis.

The analysis phase is the most critical, yet most difficult, phase of the logframe approach. The analysis phase consists of three stages,

- I. Analysis of stakeholders
- II. Analysis of problems
- III. Analysis of objectives.

**The situation of the proposed project or programme needs to be analysed. Answers to the following questions are needed:**

- What are the general areas of concern, or themes, that the project will focus on?
- What is the project aiming to achieve?
- At what spatial levels will the project focus, in terms of subject (broad/macro to specific/micro) and or geography (local to global)?
- What political, socio-economic, technological and biophysical environment will the project operate within?
- Who are the major stakeholders?
- How will stakeholders be involved in the process of design, implementation, monitoring, evaluation and reporting?
- Who is working on the issues already? What are they doing?
- What is the niche of the project?
- Who will implement the project?
- What is the intended duration of the project?
- What is the anticipated level of funding?
- Who will fund the project?

### **I. Stakeholder Analysis**

Projects are influenced by many actors. Their different interests, potentials, deficiencies and other characteristics play a role in the process of designing and implementing a project. It has been a frequent experience in development that marginal groups were not sufficiently considered in the planning, and hence caused poor implementation. Thus it is usually necessary and expedient to analyse stakeholders in a project as part of the planning process.

In using the LFA approach, the stakeholder analysis is an analysis of the problems, fears, interests, expectations, restrictions and potentials of all:

- important groups
- organisations and institutions

- implementing agencies
- other projects and
- individuals

who may have an influence on a situation/(intended) project or are themselves affected by it. Those analysed in detail should be limited to those who are perceived to:

- be able to contribute to questions to be answered
- be important with regard to decisions to be taken.

They should constantly be referred to in developing the LFA. Key questions to ask in preparation for developing the logframe are:

- Who will be involved in the logframe development?
- Where will the development be conducted?
- Who will facilitate the development of the logframe?
- What background materials, papers and expertise may be needed?
- What materials and logistics are required?

## II. The Analysis of Problems

The analysis phase usually begins with an analysis of problems. The problem analysis is undertaken by identifying the main problems and developing a 'problem tree' through an analysis of cause and effects.

The guiding principle in the Analysis of Problems is: *problem-focused analysis combined with a systems' understanding*

- Problem-focused analysis means:
  - analyse only those issues which are identified to be problematic, be guided by problem view
  - narrowing the focus with respect to the scope of analysis and at the same time digging deep into these problems and their causal factors.

System's understanding means:

- understand how the system (in which the problem and its causing factors occur) operates
- widening the view with respect to analysing the interlinkages and feed-back mechanisms between components of the system

Brainstorming techniques can be used to identify the main problems. Before the brainstorming exercise commences it is important that the facilitator explain the process and the group agrees on some rules for brainstorming.

### **An example of brainstorming rules:**

- (1) All ideas are accepted without argument
- (2) Aim for quantity rather than quality
- (3) No debate about whether ideas are accepted or not, only about whether the idea has already been listed.
- (4) No evaluation now (limit the discussion on the significance of the material and concentrate on getting full cross-section of ideas)

### The brainstorming exercise:

- (1) Commences by asking workshop participants to identify the main problems that the project will address
- (2) The main problems should be written on small pieces of card, and stuck on the wall.
- (3) High order problems should not be described as 'lack of' something, for example lack of knowledge, but instead they should be described as an effect, for example lack of knowledge may become 'destructive forest harvesting practices'
- (4) After all of the problems are displayed on the wall they should then be clustered into groups of similar issues
- (5) Problems that are duplicated can be discarded
- (6) At this stage a simple 'weeding' exercise can be undertaken. The aim of the weeding exercise is to remove any problems that are clearly not problems that can be addressed by the project.

### Developing the Problem Tree

The problem tree is developed by moving problems from the clusters of problems on the wall and by adding new problems that emerge as the tree is developed. Problems can be moved up or down the tree as required. The tree should end up with one main problem and a series of lower order problems that branch out below the main problem.

The problem tree is constructed by selecting a problem from the list and relating this problem to a starter problem using the cause-effect rationale described below:

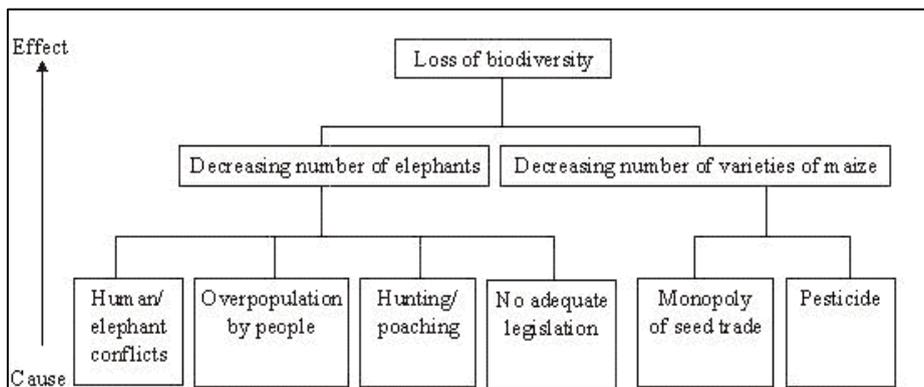
If the problem is a cause of the starter problem it is placed below the starter problem

If the problem is an effect of the starter problem it goes above

If it is neither a cause or effect it goes at the same level

The easiest way to develop the problem tree is to begin with a 'starter' problem and progressively add the other listed problems to the tree. It does not really matter which problem is chosen as the starter problem but it is best if it is a problem that participants agree is of major importance.

An example of a problem tree is shown below (IUCN, 1997)



### III. Objectives Analysis

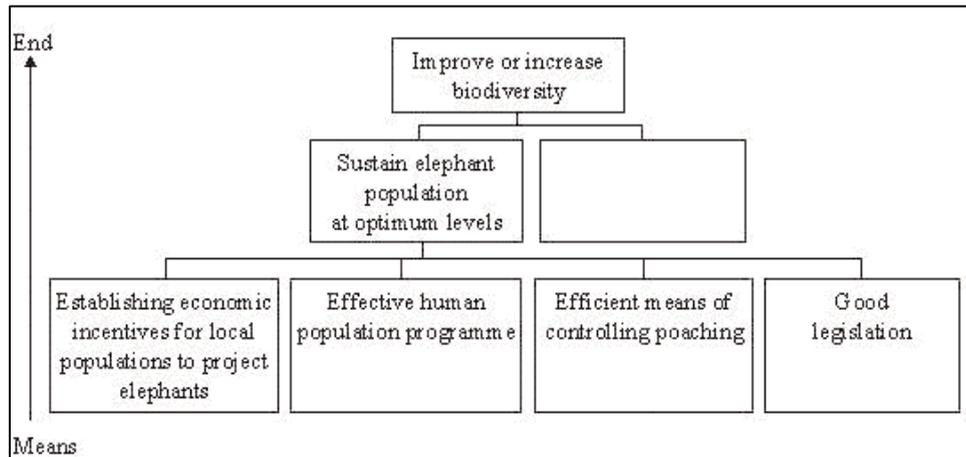
An objectives'-analysis in a wide sense is a procedure for systematically identifying, categorising, specifying and - if required - balancing out objectives of all parties involved in a specific situation (for which those objectives apply).

The problem tree is transformed into an objectives tree by restating the problems as objectives. The objectives tree can be viewed as the positive mirror image of the problem tree. It is usually necessary to

The objectives-analysis and the problems-analysis influence each other: the more information one has about the problem situation, the more specifically one can formulate objectives; the kind and outline of the objectives analysed influence the perception of problems.

reorder the position of objectives as you develop the tree. The objectives tree can also be considered as an 'ends - means' diagram. The top of the tree is the end that is desired and the lower levels are the means to achieving the end.

An example of an objectives tree is shown below (IUCN, 1997).



## Strategy Analysis

A strategy analysis or analysis of alternatives is a systematic way of searching for and deciding on problem solutions. It follows the problems and objectives analysis and is a prerequisite to designing action strategies.

Choices among different solutions to problems may concern

- overall concepts, strategic plans, objectives
- people, target groups, organisations, agencies
- methods, procedures, processes
- technologies, services, products, outputs
- measures, actions, materials, inputs

All alternative strategies considered must contribute to solving a problem, or in other words: they must be suitable steps towards the attainment of identified guiding objectives (=relevance).

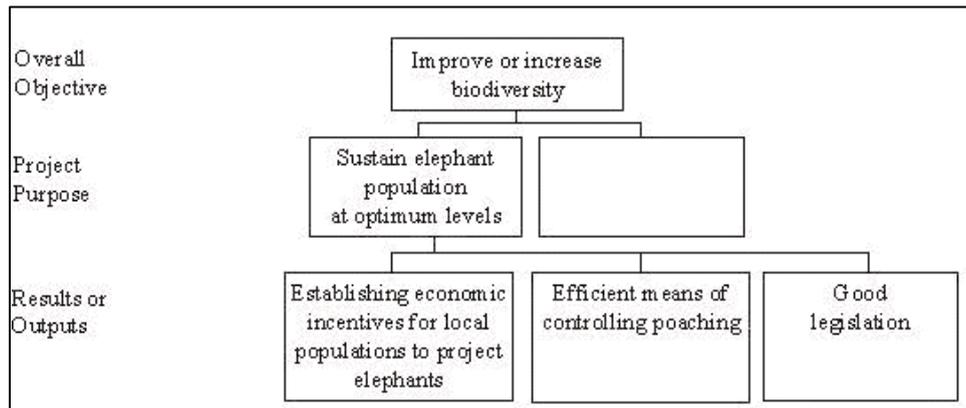
Based on the situation analysis and the ordering sequence of the problem and objective trees, the strategy analysis involves clustering objectives and examines the feasibility of different interventions. The main objective becomes the project purpose and the lower order objectives become the outputs or results and activities.

The strategy analysis phase involves the selection of a strategy to achieve the desired results. The strategy comprises the clusters of objectives to be included in the project. In addition to examining the logic, strategy analysis also looks at feasibility of different interventions. This may mean that the focus of the project shifts,

Alternative strategies can only be analysed as different means (the "how": doing the thing right) to reach a pre-defined end (the "what": doing the right thing). Analysing the strategies thus is not a once for all exercise, but it is a continuous task in project management.

therefore once the strategy has been selected, the project purpose and overall objectives are finalised.

An example of a strategy analysis is shown below (IUCN, 1997). In this example it is unlikely to choose "efficient human population programme" (identified in the objectives analysis) but rather one or all of the other means. The process of making choices should be carried out in a very methodical way, giving due consideration to the ends/means relationship in the objectives tree.



## Project Planning Matrix (PPM)

### What is a PPM?

The Project Planning Matrix is developed from the strategy analysis by filling in the columns of the matrix as shown below. The goals, purpose, outputs/results and inputs/activities are transposed from the strategy tree to the columns and rows in the matrix.

The PPM provides a one-page summary of:

- **Why** a project is carried out (= who/what will benefit ?)
- **What** the project is expected to achieve (= utilisation of services)
- **How** the project is going to achieve its outputs/results (= measures executed)
- **Which** external factors are crucial for the success of the Project (= risks and frame conditions)
- **How** we can assess the success (= indicators)
- **Where** we will find the data required to assess the success (= means of verification).

### What does the Matrix look like?

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
GOALS/ OBJECTIVE	Measures of goal achievement	Various sources of information; methods used	Goal-purpose linkages
PROJECT PURPOSE	End-of-project status	Various sources of information; methods used	Output-purpose linkages
OUTPUTS/R ESULTS	Magnitudes of outputs; planned dates of completion	Various sources of information; methods used	Input-output linkages
INPUTS/ ACTIVITIES	Types/levels of resources; starting date	Project data, other sources of information	Initial assumptions regarding the causality of the programme

When used properly the logframe helps to make logical relationships between activities, results, purpose and objectives more transparent.

## What are the Main Elements of the PPM?

### (1) Narrative Summary

#### GOAL

The development goal describes the developmental benefits which the respective target groups can expect to gain from the program or the project

It contains hints on: the kind of benefits which are expected to accrue to the target groups and by what type of capabilities they should be enabled to keep up or improve their conditions in changing economic, social and institutional environments

#### PROJECT PURPOSE

The purpose of a program or a project describes the changes in behaviour, structures or capacity of the target groups which directly result from the utilisation of the deliverable outputs or results the program or project will be expected to yield.

It contains aspects like: a changed type / method of resources utilisation, an improved system of production / organisation which allows the target groups to participate in the project / program, and which is adjusted to their economic, social, ecological and institutional frame conditions

#### OUTPUTS / RESULTS

The outputs or results describe the goods and services, the direct deliverables which are contributed from the side of a project or program.

Outputs or results must express the nature, scope and intensity of support or of the solution being sought. This includes:

- (1)provision of information on support / solution
- compatibility of support / solution with prevailing frame conditions
- (2)access to support / solution by specific target-groups, including gender-aspects
- (3)availability of support / solution

#### INPUTS/ACTIVITIES

Measures / tasks carried out by the project / program in order to achieve and obtain the outputs/results (actions)

### Performance Indicators vs. Descriptive Indicators

Performance indicators measure the achievement of objectives. e.g. the percent annual change in forest area; life expectancy at birth.

Descriptive indicators measure phenomena that may influence objectives but which the objectives are not expected to change. e.g. national monthly rainfall index; ethnic composition of population.

## (2) Objectively Verifiable Indicators:

For each cell of the narrative summary, indicators need to be developed. Objectively verifiable indicators or OVI should meet the following criteria:

- Measurable: An indicator must be able to be measured in either quantitative or qualitative terms
- Feasible: An indicator should be feasible in terms of finances, equipment, skills and time.
- Relevant and Accurate: An indicator should reflect what we are trying to measure in an accurate way.
- Sensitive: An indicator should be capable of picking up changes over the time period that we are interested in.
- Timely: An indicator should be able to provide information in a timely manner.

Indicators should show who is benefiting from the project and allow for evaluation of the intended and unintended impacts of the project on various social groups and stakeholders. This requires the collection of information separately for men and women, for different ethnic groupings, for different age groupings (children, adults, elderly) and for different economic (rich, poor) and social groupings (agriculturists, pastoralists, businesses).

## (3) Means of Verification

Once indicators have been developed, the source of the information and means of collection (means of verification (MOV)) should be established for each indicator. An MOV should test whether or not an indicator can be realistically measured at the expense of a reasonable amount of time, money and effort. The MOV should specify:

- The format in which the information should be made available (e.g. reports, records, research findings, publications).
- Who should provide the information.
- How regularly it should be provided.

**Means of verification indicate:**

- (1) How to acquire evidence that the objectives have been met
- (2) Where to find proof, which will provide the data/information, required for each indicator

## (4) Assumptions:

The aim of specifying assumptions is:

- (1) to assess the potential risks to the project concept right from the initial stages of project planning
- (2) to support the monitoring of risks during the implementation of the project (assumptions can be specified by indicators and are an object of monitoring the frame conditions of a project / program and the changes in the frame conditions)
- (3) to provide a firm basis for necessary adjustments within the project whenever it should be required.

## Vertical and Horizontal Logic within the PPM

The matrix functions on two dimensions, vertical and horizontal.

**Vertical:** The vertical logic can proceed from very specific inputs moving up to a general goal. It can also be considered in reverse from a general goal to the necessary specific inputs.

If the project or programme has good causality, then the vertical logic should be correct and demonstrable. Testing the vertical logic is important because it makes explicit the relationship between the particular inputs and outcomes. LFA also causes project participants to examine not only the causality of their project but also the resource requirements.

### Linking of Matrix Cells through Vertical Logic

Intervention Strategy		Important Assumptions
Goal		Assumptions for sustaining the goal in the long term
Project Purpose	Achieved plus	assumptions for achieving the goal
Outputs/Results	Achieved plus	assumptions for achieving the project purpose
Inputs/Activities	Carried out plus	Assumptions for achieving the outputs/results

**Horizontal:** The horizontal logic of the matrix considers how to determine the status of inputs, outputs, achieving the project purpose and contributing to the overall goal by listing the indicators and verification and the assumptions overarching the project implementation.

### An Example of a Matrix

Below is a simplified example of a filled out matrix with the overall goal to improve human nutrition.

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
GOAL/ OBJECTIVE  Improving human nutrition in X	Improved human nutrition	Quantitative measures available from public sources or records of the project	Having more food produced will increase availability and improve nutrition
PROJECT PURPOSE  increase food production	Increased food production	Quantitative measures available from public sources or records of the project	Better yields will lead to increased production
OUTPUTS/ RESULTS  increased yields of	Increased quantities of vegetables	Quantitative measures available from public sources or records of the project	Using irrigation water will increase yields

vegetables			
INPUTS/ ACTIVITIES	Irrigation water	Quantitative measures available from public sources or records of the project	Irrigation water is available and can be distributed  The increased yields will be available to the people
Irrigation water			

## Implementation

The operational phase of a project commences when implementing activities begin in order to achieve the expected outputs/results. In many cases this may be one or two years after the project concept had been established at the end of the design phase (as laid down in the PPM of the project appraisal). In the meantime framework conditions may have changed, so that a verification of the PPM must take place during the operational planning. The project purpose and development goal, however, should be altered only in exceptional cases when major changes have occurred.

Implementation should have a plan of operations i.e. the detailed plan for the implementation of project. It is established by the project team and will be documented as:

workplans / work schedules

project budget / resources plans

personnel plans

material and equipment plan / procurement plan / staff training plans.

The work plan and the project budget constitute the core of the Plan of Operations.

### Constructing a Combined Workplan and Project Budget

**Step 1:** Develop a table (workplan skeleton) and transfer the activities from the Project Planning Matrix to the first column of Define any necessary sub-activities.

**Step 2:** For each activity / sub-activity:

- specify the anticipated milestone(s)
- assign responsibilities for the implementation
- determine the beginning and the end of the implementation of each activity / sub-activity (timing)
- specify staff requirements per activity/sub-activity
- specify the quantity of material and equipment needed per activity/sub-activity
- specify cost and cost category for every activity/sub-activity
- specify important assumptions and their indicators

'Milestones' define the targets that are to be reached by each activity or sub-activity. As the activities or sub-activities are listed in a consecutive order the completion of each activity may be seen as a 'milestone' on the way to achieving the relevant result.

**Step 3:** Final check with focus on:

- consistency of cost with overall allocation / availability of financial resources.
- workload of assigned / responsible personnel
- consistency of the timing.

It may be advisable to transfer the reviewed workplan into a bar-chart with time axes.

### Possible Format for a Workplan:

Activity	Mile Stone	Assigned to: Responsibility:	2000	2000	2000	2000	Staff / Training Require ments	\$	Equip. Materials	\$	Misc	\$	Remarks
			1 <sup>st</sup> Div.	2 <sup>nd</sup> Div.	3 <sup>rd</sup> Div.	4 <sup>th</sup> Div.							
Activity 1.0			.....										
Activity 1.1			.....										
Activity 1.2			.....	.....									
Activity 2.0				.....	.....								

The workplan and project budget sheet constituting the core of the Plan of Operations, will serve as the basis for further detailed operational planning: e.g. sectional work-plans / budgets, half-yearly/quarterly plans, specific functional plans e.g. for training, procurements, etc.

### Recommended Structure of a Plan of Operation (in the form of a document)

#### 1. Summary

Name of project, location, project executing agencies; overall goal, project purpose, background and major time schedule; indicators regarding ongoing project phase, outputs/results, major activities and resources required in the planned project period.

#### 2. Overall Concept

problem analysis and objectives; target groups, long-term project strategy, outputs/results, assumptions and risks for the overall project period; guarantee of the sustainability (integration planning), organisation of project executing agencies, development of institutional structures; total costs.

#### 3. Description of previous project phase (if applicable)

Description of the situation at the beginning of the planning period; comparison of targets and actual situation, with respect to the results of previous planning period and the utilisation of resources, indications concerning assumptions and major (non-scheduled) impacts, conclusions concerning subsequent planning period or overall concept (modifications, new activities, evaluations, etc.)

#### **4. Description of upcoming project phase**

Description of project goal, the outputs/results and assumptions, providing indicators for this period; description of the major activities; the procedure followed in the individual work areas and time frame (work plan), inter-linking of activities, impacts on target groups, their contributions and how they are integrated; monitoring and project controlling; description of the major organisation, competencies and responsibilities of the project executing agency in the project; functions of personnel; contributions by third parties; how funds are managed; organisation of cooperation in project (co-ordination, work-flows, communications, etc.)

#### **5. Contributions by the partner organisation, the funding agencies and by third parties to the ongoing project period**

Project budget

Personnel plan

Staff training plan

Material & equipment plan / procurement plan

#### **6. Monitoring and Reporting**

Deadlines for reports, addressees, deadlines for re-planning, evaluations.

#### **7. Appendices**

Problem tree for entire project period

Objectives tree for entire project period

Project planning matrix for entire project period

Project planning matrix for upcoming project period

Monitoring and evaluation documents

Organisation chart for project executing agency and for the project

Job descriptions of project staff (expatriate and local personnel)

List of available planning documents

## **Weaknesses with Logical Frameworks**

LFA provide a valuable set of tools for project designing, but they also have a number of weaknesses. Such weaknesses include, but are not limited to the following:

- One of the main criticisms that project designers have of the LFA approach is that it begins by identifying problems. There are three problems that emerge from beginning with problems:
  - Beginning with the problem analysis often produces poor results because the initial negative focus pervades the rest of the LFA process. This often results in limited vision of potential solutions.
  - Beginning with the problem analysis can be particularly serious problem in cultures that consider it inappropriate to openly discuss problems or criticise.
  - Beginning with the problem analysis is not suited to situations where there is a great deal of uncertainty or where agreement cannot be reached on the main problem.

The LFA approach assumes the nature of the problems can be readily determined at the beginning of the planning process. This does not allow for an exploratory style project that seeks to learn from experience.

- The LFA is often developed and used rigidly. This can stifle innovative thinking and adaptive management.
- LFAs are often developed after the project has been designed rather than used as the basis for design. The use of the LFA late in the design process can often be attributed to:
  - a lack of understanding of the LFA approach
  - the LFA is seen as a requirement of funding agencies and not as a design or management tool.
- LFAs do not readily enable monitoring unintended consequences.
- LFAs are rarely considered by project managers to be a key planning tool.

## Conclusions

The logical framework approach provides a powerful set of tools for designing projects and project evaluations. However, like all tools, LFAs are not the complete answer to effective project designing. LFAs are best used towards the end of the project design cycle after information has been collected and analysed, needs assessed, views of stakeholders sought and the external environment of the project understood.

## Bibliography

Gesellschaft für Technische Zusammenarbeit (GTZ). 1991. Methods and Instruments for Project Planning and Implementation. Eschborn: Germany.

GTZ. 1988. ZOPP (An Introduction to the Method). Eschborn, Germany.

GTZ. 1988. ZOPP in Brief. Eschborn, Germany.

ITAD Ltd (1996) "the logical framework approach - a project management tool".

IUCN (1997) Draft PDG Guidelines: A guide to the development, review and further processing of projects in IUCN.

Prescott-Allen R. (1997) The Barometer of Sustainability. IUCN Switzerland.

# **Designing Projects and Project Evaluations Using The Logical Framework Approach**

**written by Bill Jackson  
for the  
IUCN Monitoring and Evaluation Initiative**

**October 1997**

**IUCN**  
The World Conservation Union



Founded in 1948 as the International Union for the Conservation of Nature and Natural Resources, the IUCN - the World Conservation Union, brings together States, Government agencies and a diverse range of non-government organisations in a unique world partnership: over 800 members in all, spread across some 136 countries. As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity, and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. The Union builds on the strengths of its members, networks and partners to enhance their capacity and to support global alliances to safeguard natural resources at local, regional and global levels.

The views expressed in this guideline do not necessarily reflect those of IUCN. Neither do the presentation of material and geographic designations employed imply any expression of opinion whatsoever on the part of IUCN concerning the legal status of any country, territory or area, concerning the delimitation of its frontiers and boundaries.

### **About the IUCN M&E Initiative**

This publication is a contribution to the work of the IUCN Monitoring and Evaluation (M&E) Initiative. Developed in 1996 as a response to the 1994 and 1996 External Reviews of IUCN, the M&E Initiative aims to improve IUCN's capacity to learn from experience by:

- improving our use of methods and tools in project, systems and institutional assessment.
- developing a reflective culture within IUCN.
- improving project and programme design, implementation and M&E.
- improving the policy - field feedback loop.
- improving our communications and reporting of lessons learned.

This is being done through a facilitated approach working in four pilot regions - East and Southern Africa, Central and South America. Bill Jackson was the facilitator for East and Southern Africa during 1996 and is currently the Head of the Forest Programme at IUCN HQ. He uses the approach to logical frameworks described in this paper.

For more information please contact the IUCN M&E Initiative, Rue Mauverney 28, Gland, 1196, Switzerland.

Fax: 41 22 999 0025; Phone: 41 22 999 0001. Email: [Mail@hq.iucn.org](mailto:Mail@hq.iucn.org)

This paper is also on the IUCN Website: <http://www.iucn.org/themes/ssp/index.html>

# Designing Projects and Project Evaluations Using The Logical Framework Approach

Bill Jackson

1997

## Introduction

Volumes having been written on project design and planning, yet there is not, and most likely never will be, a blueprint for designing and evaluating projects. Project designs vary from simple ‘desk-top’ designs to complex exercises involving complex partnership arrangements. Designs can be brief, uncomplicated exercises that last only hours or long complex procedures that involve many cycles of planning, reviewing and adjusting.

This guideline is designed to assist IUCN’s secretariat and members understand the logical framework approach to project design and evaluation.

## Effective project design

The logical framework (or logframe) approach provides a set of designing tools that, when used creatively, can be used for planning, designing, implementing and evaluating projects. Logframes provide a structured, logical approach to setting priorities and determining the intended results and activities of a project. Used correctly, logframes can provide a sound mechanism for developing a project concept into a comprehensive project design document.

Logframes can also provide the basis for evaluating the effectiveness, efficiency and relevance of a project.

There are a variety of approaches to logframes. Many of the institutions involved in conservation and development activities have particular approaches to logframes. This paper does not argue that one approach is better than another, but provides a generic approach that can be adapted to suit the needs of the user or donor agency.

The logframe approach usually consists of an **analysis** and a **planning** phase, each phase has three steps as shown below (adapted from ITAD, 1996).

<b>Analysis Phase</b> ⇒ ⇒ ⇒ ⇒	<b>Planning Phase</b>
• Analysis of problems	• Logframe matrix
• Analysis of objectives	• Activity Schedule
• Analysis of strategies	• Input and cost schedule

Before describing the logframe approach it is worth considering (a) the weaknesses of the approach and (b) what needs to be undertaken before a logframe can be developed.

### **Weaknesses with Logical Frameworks**

Logframes provide a valuable set of tools for project designing, but they also have a number of weaknesses. Such weaknesses include, but are not limited to the following:

- One of the main criticisms that project designers have of the logframe approach is that it begins by identifying problems. Such an approach:
  - Often produces poor results because the initial negative focus pervades the rest of the logframe process. This often results in limited vision of potential solutions.
  - Can be a particularly serious problem in cultures that consider it inappropriate to openly discuss problems or criticise.
  - Is not suited to situations where there is a great deal of uncertainty or where agreement cannot be reached on the main problem. The logframe approach assumes the nature of the problems can be readily determined at the beginning of the planning process. This does not allow for an exploratory style project that seeks to learn from experience.
- The logframe is often developed and used rigidly. This can stifle innovative thinking and adaptive management.
- Logframes are often developed after the project has been designed rather than used as the basis for design. The use of the logframe late in the design process can often be attributed to:
  - a lack of understanding of the logframe approach.
  - the logframe is seen as a requirement of funding agencies and not as a design or management tool.
- Logframes do not readily enable monitoring unintended consequences.
- Logframes are rarely considered by project managers to be a key planning tool.

### **Situation Analysis**

Before the logframe approach can be used the situation of the proposed project or programme needs to be analysed. Answers to the following questions are needed:

- What are the general areas of concern, or themes, that the project will focus on?
- What is the project aiming to achieve?
- At what spatial levels will the project focus, in terms of subject (broad/macro to specific/micro) and or geography (local to global)?
- What political, socio-economic, technological and biophysical environment will the project operate within?

- Who are the major stakeholders?
- How will stakeholders be involved in the process of design, implementation, monitoring, evaluation and reporting?
- Who is working on the issues already? What are they doing?
- What is the niche of the project?
- Who will implement the project?
- What is the intended duration of the project?
- What is the anticipated level of funding?
- Who will fund the project?

Before a logframe can be developed the answers to many or all of these questions need to be collected, synthesised and analysed. In addition, the project needs to be placed in the context of the following four areas of concern:

- The historical background of issues relating to the proposed project;
- The current situation;
- The needs and interests of various stakeholders; and
- Future options.

For projects involving simple issues the information collection, synthesis and analysis stage is often very brief. In other instances, where the project is complicated, the information collection, synthesis and analysis stage requires intensive efforts that can take years.

### **Getting Ready for the Logical Framework Workshop**

Ideally the logical framework analysis should be undertaken in a workshop situation which includes key stakeholders. However, more often than not, the logical framework is developed by a consultant or staff member in isolation from other stakeholders. This latter approach should be avoided where possible.

Before commencing the logframe workshop the above preliminary steps should be complete and the following issues should be considered:

- Who will be involved in the logframe workshop?
- Where will the workshop conducted?
- Who will facilitate the workshop?

What background materials, papers and expertise may be needed for the workshop?

- What materials and logistics are required?

In some situations more than one round of logical framework analysis may be needed. This is particularly the case where there are large differences of opinion between stakeholders. Such differences can be geographic, social, economic or political. For

example, a project may be focused on assisting village communities to manage natural resources while operating simultaneously at district, regional and national levels. Bringing stakeholders together from the national policy level to the resource user level in a single logframe exercise is unlikely to be feasible or productive. An alternative approach involves using a participatory approach to planning at the village level which feeds into a series of logframe workshops at the higher levels. The outcomes of the participatory planning exercises and workshops can be fed into an overall project logframe workshop at the national level involving key stakeholders national, regional, district and grassroots organisation levels.

## **The Analysis Phase**

The logframe approach begins by analysing the existing situation and developing objectives for addressing real needs. The analysis phase is the most critical, yet most difficult, phase of the logframe approach. The analysis phase consists of three stages, analysis of problems, analysis of objectives and analysis of strategies.

### **The Analysis of Problems**

The analysis phase usually begins with an analysis of problems. However, beginning the process with an analysis of problem can produce poor results as it focuses on negative issues to begin with. This can be a particularly serious problem in cultures that consider it inappropriate to openly discuss problems or criticise. An alternative is to begin by formulating objectives, this is discussed below.

The problem analysis is undertaken by identifying the main problems and developing a 'problem tree' through an analysis of cause and effects.

#### ***Identifying the main problem***

Brainstorming techniques are used to identify the main problems. Before the brainstorming exercise commences it is important that the facilitator explain the process and the group agrees on some rules for brainstorming.

##### **An example of brainstorming rules**

- All ideas are accepted without argument
- Aim for quantity rather than quality
- No debate about whether ideas are accepted or not, only about whether the idea has already been listed.
- No evaluation now (limit the discussion on the significance of the material and concentrate on getting full cross-section of ideas)

For maximum participation, brainstorming groups should be no more than ten or twelve people. For larger groups it is better to split the group into smaller groups. The brainstorming exercise commences by asking workshop participants to identify the main problems that the project will address. The main problems should be written on small pieces of card, post-it notes, or paper and stuck on the wall. Wherever possible high order problems should not be described as 'lack of' something, for example lack of knowledge, but instead they should be described as an effect, for example lack of knowledge may become 'destructive forest harvesting practices'.

After all of the problems are displayed on the wall they should then be clustered into groups of similar issues. Problems that are duplicated can be discarded. At this stage a simple 'weeding' exercise can be undertaken. The aim of the weeding exercise is to remove any problems that are clearly not problems that can be addressed by the project.

### *Developing the problem tree*

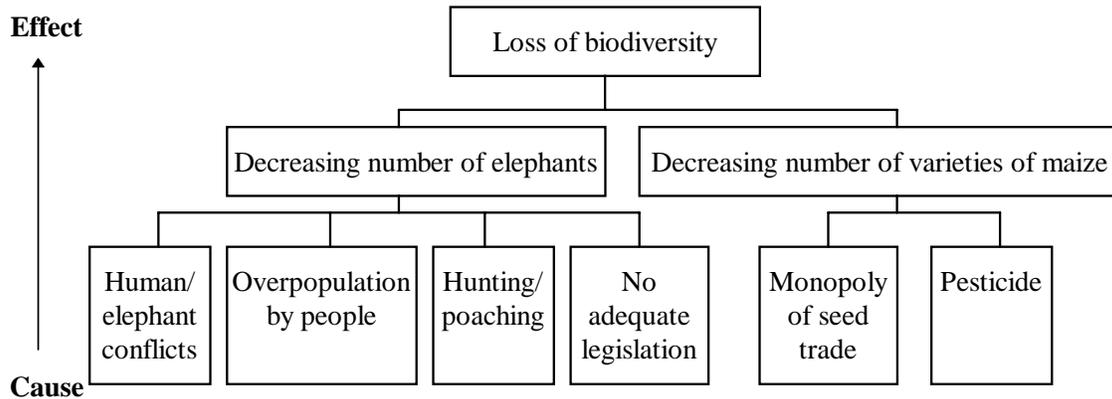
The problem tree is developed by moving problems from the clusters of problems on the wall and by adding new problems that emerge as the tree is developed. Problems can be moved up or down the tree as required. The tree should end up with one main problem and a series of lower order problems that branch out below the main problem.

The easiest way to develop the problem tree is to begin with a 'starter' problem and progressively add the other listed problems to the tree. It does not really matter which problem is chosen as the starter problem but it is best if it is a problem that participants agree is of major importance. The problem tree is constructed by selecting a problem from the list and relating this problem to the starter problem using the cause-effect rationale described below:

- If the problem is a cause of the starter problem it is placed below the starter problem;
- If the problem is an effect of the starter problem it goes above;
- If it is neither a cause or effect it goes at the same level.

An example of a problem tree is shown below.

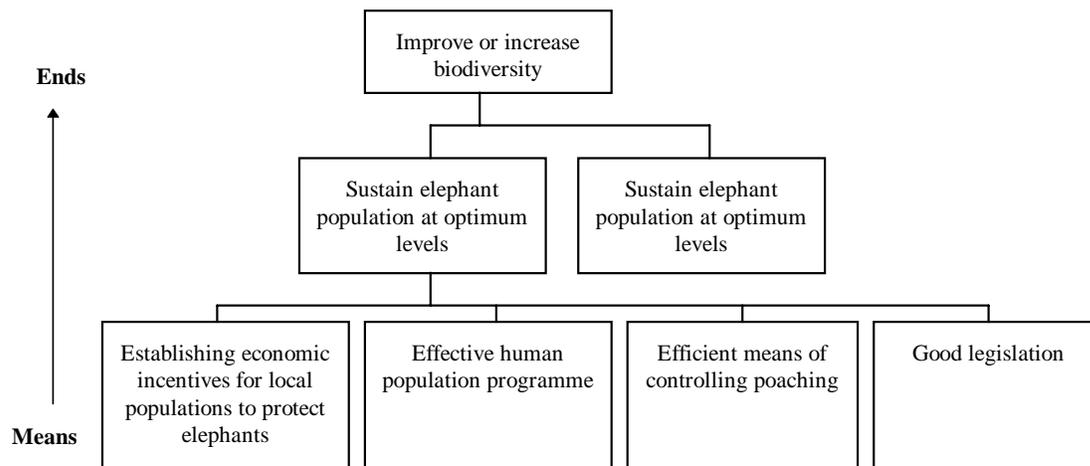
**Figure 1 A simple problem tree (from IUCN, 1997)**



### Objectives Analysis

The problem tree is transformed into an objectives tree by restating the problems as objectives. ITAD (1996) describe the objectives tree as the positive mirror image of the problem tree. It is usually necessary to reorder the position of objectives as you develop the tree. The objectives tree can also be considered as an ‘ends - means’ diagram. The top of the tree is the end that is desired and the lower levels are the means to achieving the end. An example of an objectives tree is shown below.

**Figure 2 An objectives tree (from IUCN, 1997)**



### Strategy Analysis

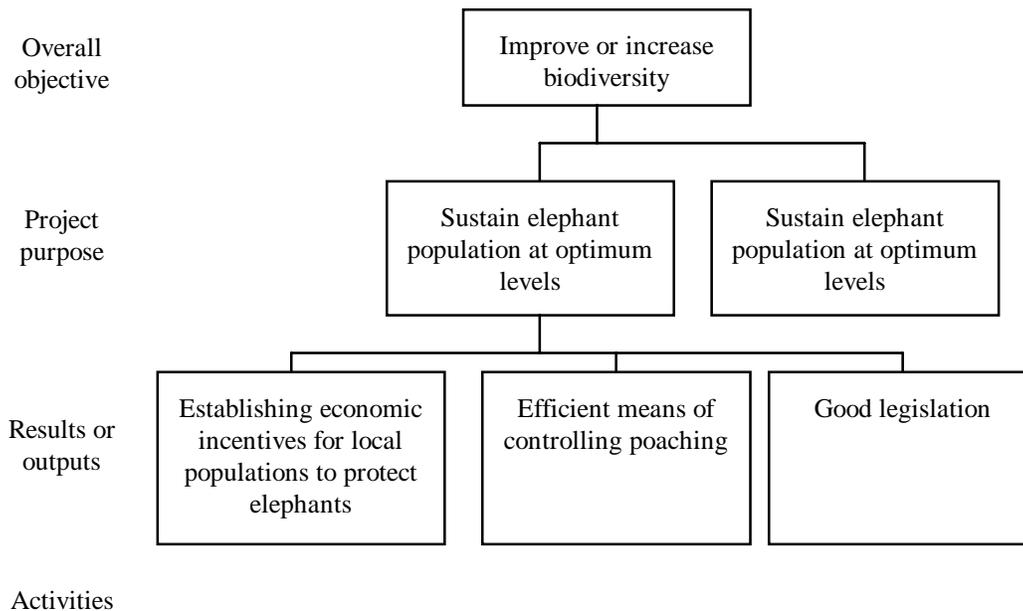
The strategy analysis involves clustering objectives and examines the feasibility of different interventions (ITAD, 1996). The main objective becomes the project purpose and the lower order objectives become the outputs or results and activities.

ITAD (1996) state ... “the final stage of the analysis phase involves the selection of a strategy to achieve the desired results. The strategy comprises the clusters of objectives

to be included in the project. In addition to examining the logic, strategy analysis also looks at feasibility of different interventions. This may mean that the focus of the project shifts, therefore once the strategy has been selected, the project purpose and overall objectives are finalised.”

An example of a strategy analysis is shown below. In this example it is unlikely that IUCN would choose “efficient human population programme” but rather one or all of the other means. The process of making choices should be carried out in a very methodical way, giving due consideration to the ends/means relationship in the objectives tree (IUCN, 1997).

**Figure 3 A strategy (adapted from IUCN, 1997)**



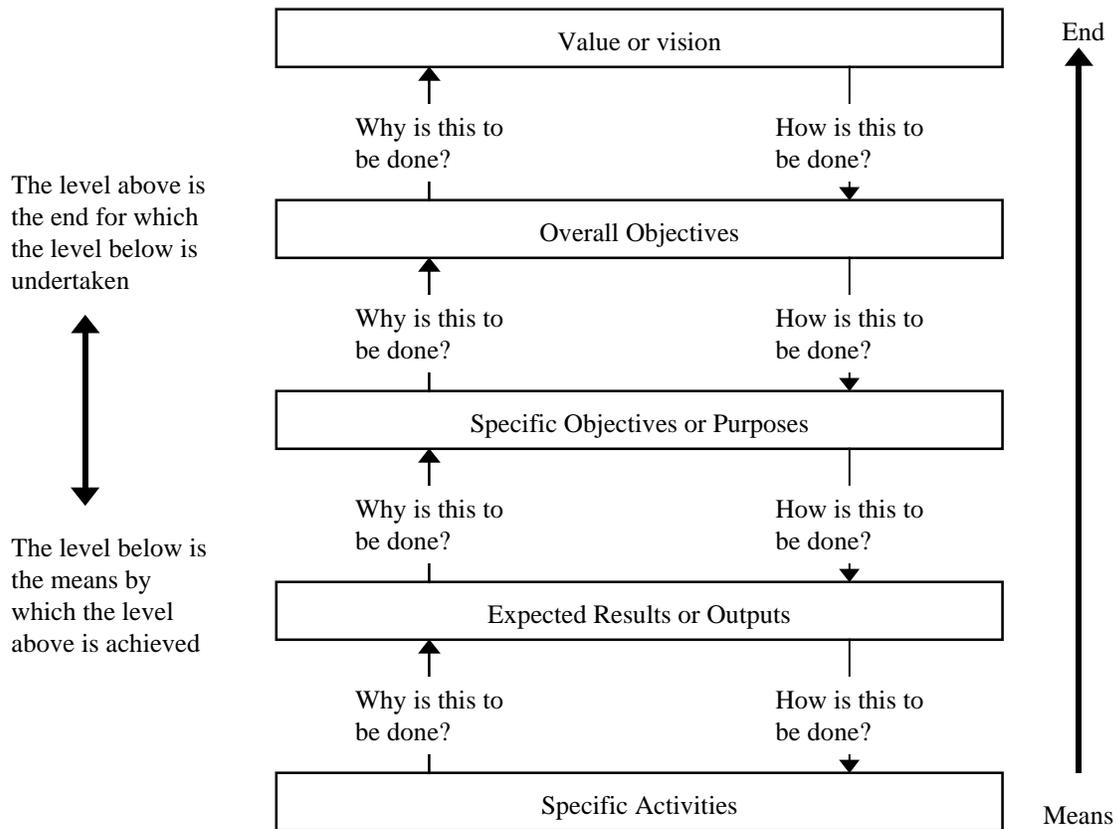
### Testing the logic of the tree

There are a number of tools that can be used to test the logic of the objectives tree and to identify strategies. Three tools are described below.

#### *The intent structure analysis*

The intent structure is a tool from systems methodology, adapted from systems engineering. Lee-Smith (1997) describes it as an ‘ends-means’ diagram that portrays the values, goals, objectives and detailed actions of components of an organisation, program, project or purposeful system. The intent structure is shown below. The logic of the tree is tested by starting at the top of the hierarchy and asking the question how is each level in the hierarchy to be achieved, and or by starting at the bottom of the hierarchy and asking the question “why is this objective/action being undertaken”.

**Figure 4 The Intent Structure (adapted from Lee-Smith, 1997)**



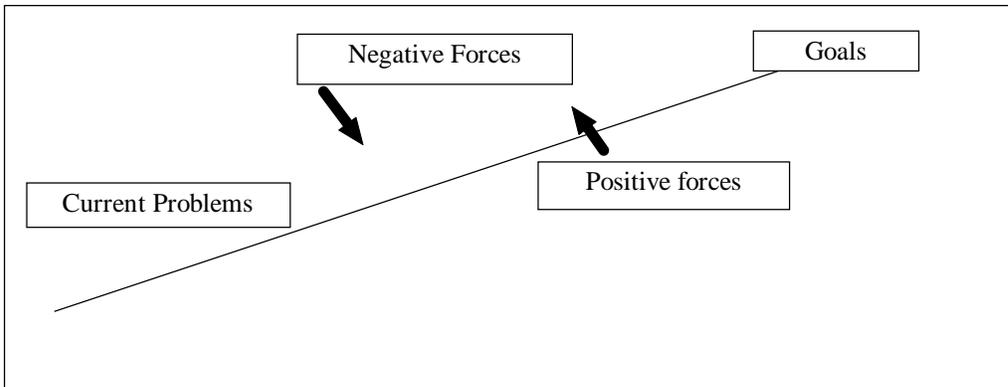
***Force Field Analysis***

Force field analysis is a simple approach that is used to develop a list of the factors that may promote or inhibit reaching the goals and objectives of the project. The aim of force field analysis is to provide a model for encouraging the participants to:

- Examine current characteristics of the present state or situation;
- Develop a list of positive and negative forces influencing the achievement of the goals and objectives;
- Discuss the means to strengthening the positive forces and overcoming the weak forces sought.

A graphical representation of the force field analysis is shown below:

**Figure 5 Force Field Analysis**



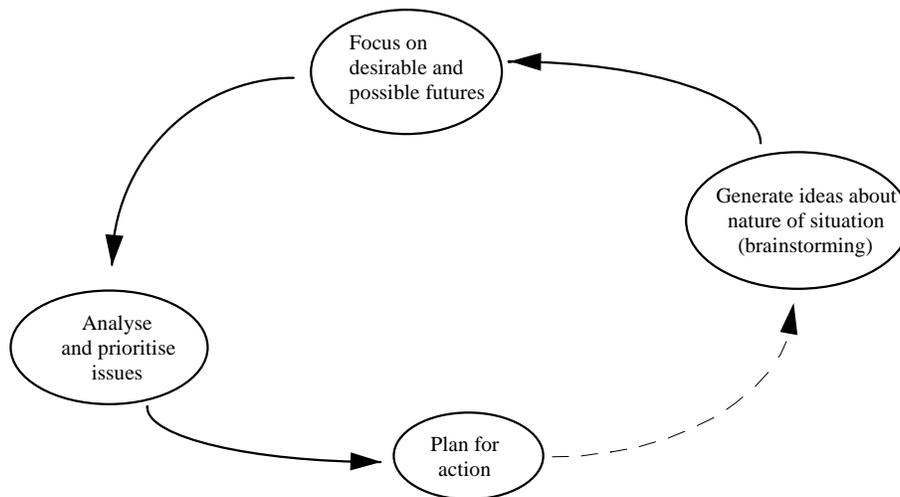
**SWOT**

SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is widely used as tool for exploring the constraints and opportunities of a proposal. It can be used to test the completeness of a goal. Strengths and weakness refer to those strengths and weaknesses within the project. Opportunities and threats refer to the opportunities for and the threats to the project achieving the goal.

**An Alternative Approach to the Analysis Phase**

An alternative approach to the analysis phase is to use the search conference approach. Crombie (1983: 9) describes the search conference as a methodology of participatory planning that involves groups searching future possible environments for a more desirable future. The search conference process involves generating information and ideas through diverging techniques (brainstorming), synthesis and analysis of ideas and finally to planning future actions (Crombie, 1983: 9), see figure 6.

**Figure 6 The search conference approach**



## The Planning Phase

The logframe matrix is developed from the strategy analysis by filling in the columns of the matrix as shown below. The objectives, purpose, outputs/results and activities are transposed from the strategy tree to the columns and rows in the matrix. Figure 7 indicates the approach to preparing a logframe and indicates the sequence for completing the logframe.

ITAD (1996) suggest that when used properly the logframe helps to make logical relationships between activities, results, purpose and objectives more transparent.

**Figure 7 The logical framework matrix**

<b>Objectives/activities</b>	<b>Indicators</b>	<b>Means of verification</b>	<b>Assumptions</b>
1 Overall Objectives	15 Indicators	16 Means of verification	8 Assumptions
2 Project Purpose	13 Indicators	14 Means of verification	7 Assumptions
3 Results	11 Indicators	12 Means of verification	6 Assumptions
4 Activities	9 Means and Indicators	10 Costs and Means of verification	5 Assumptions

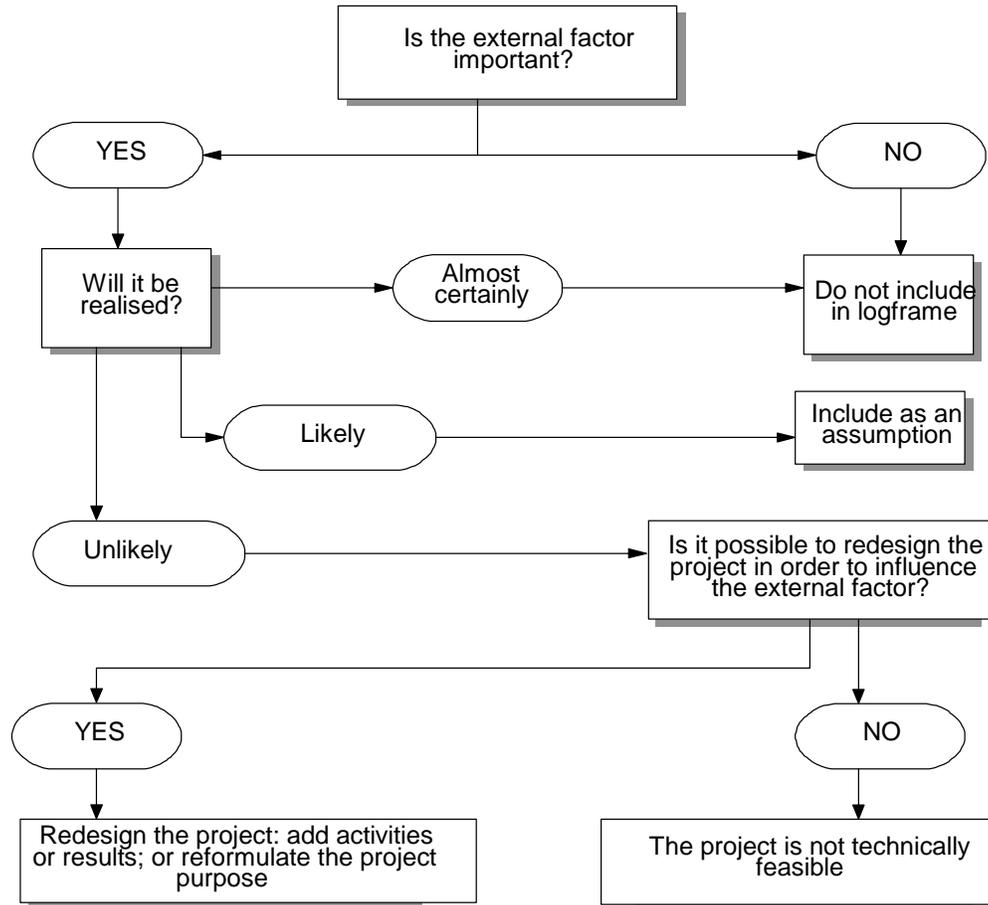
## Assumptions

The aim of specifying the assumptions is to identify the external factors that will affect the success of the project. Once assumptions have been identified, they are stated in terms of the desired situation (ITAD, 1996). Examples of assumptions may be (from ITAD, 1996):

- Land distribution is completed in a timely manner;
- Local institutions collaborate in planning activities;
- Suitable staff are identified and recruited;
- Adequate budget allocations are made;
- Government meets certain preconditions set by the donor.

ITAD provides an assumptions algorithm shown in figure 8.

**Figure 8 The Assumption Algorithm (ITAD, 1996)**



**Objectively Verifiable Indicators**

For each output and activity indicators need to be developed. Objectively verifiable indicators or OVI should meet the following criteria:

<b>Measurable</b>	An indicator must be able to be measured in either quantitative or qualitative terms
<b>Feasible</b>	An indicator should be feasible in terms of finances, equipment, skills and time available
<b>Relevant and Accurate</b>	An indicator should reflect what we are trying to measure in an accurate way
<b>Sensitive</b>	An indicator should be capable of picking up changes over the time period that we are interested in and
<b>Timely</b>	An indicator should be able to provide information in a timely manner

At this stage in the logframe process there is often a tendency to include large numbers of indicators on the assumption that more information is better than less information.

Prescott-Allen (1997) differentiates between performance indicators and descriptive indicators. Performance indicators measure the achievement of objectives. For example, the % annual change in forest area; life expectancy at birth. Descriptive indicators measure phenomena that may influence objectives but which the objectives are not expected to change. For example, national monthly rainfall index; ethnic composition of population.

Prescott-Allen (1997) provides the following details about indicators:

- Performance indicators measure results and responses.
- Results are more convincing indicators than responses.
- The more direct the indicator the more reliable it will be.
- Conditions or states are the most direct measures of results.
- Pressures are strong substitutes for conditions/states.
- Responses are weak substitutes for conditions/states.

He continues, a high quality performance indicator:

- Relates to an explicit objective.
- Accurately and unambiguously reflects the degree to which the objective is met.
- Is measurable.
- Depends on data that are either readily available or obtainable at reasonable cost.
- Is analytically sound and uses standardized measurement wherever possible to permit comparison.
- Shows trends over time and is responsive to changes in conditions and sensitive to differences between places and groups of people.

### **Indicators of Equity and Gender**

Indicators should show who is benefiting from the project and allow for evaluation of the intended and unintended impacts of the project on various social groups and stakeholders. This requires the collection of information separately for men and women, for different ethnic groupings, for different age groupings (children, adults, elderly) and for different economic (rich, poor) and social groupings (agriculturalists, pastoralists, businesses).

### **Means of Verification**

Once indicators have been developed, the source of the information and means of collection (means of verification (MOV)) should be established for each indicator. An

MOV should test whether or not an indicator can be realistically measured at the expense of a reasonable amount of time, money and effort. The MOV should specify:

- The format in which the information should be made available (e.g. reports, records, research findings, publications).
- Who should provide the information.
- How regularly it should be provided (adapted from ITAD, 1996).

### **Means and Costs and Activity Schedules**

Once the logframe matrix has been completed the details should be transferred to an activity schedule and costs for each activity assigned to determine a budget. Gantt Charts can be used to develop a schedule of activities. Cost Schedules should be prepared as a basis for project budgeting. Such budgets should match with the logframe and build in funds for evaluation.

### **Using Logical Frameworks for Project Evaluations**

ITAD (1996) suggest that ‘the logframe approach remains a powerful management tool for analysis of project design’. The difference between using a logframe approach for designing a new project and analysing an existing project is that the analysis phase uses existing project documentation instead of primary data sources.

The following sequence for using a logframe approach for evaluating an existing project is based on ITAD (1996):

- Mark the problems listed in the project documents
- Use these problems to build a problem tree
- Reformulate the problems into objectives
- Mark the objectives listed in the project documents
- Compare the objectives listed in the document with the reformulated problems
- Build an objectives tree, identifying the following:
  - objectives that are identified in the documents and by the review team
  - objectives that are identified by the review team but not in the document
  - objectives that are identified in the document but not by the review team
- Analyse inconsistencies in project design
  - problems not addressed by objectives
  - objectives for which no corresponding problem was identified
  - differences in cause-effect/means-ends relationships between the problem tree and objective tree

Logframes can also be developed for existing projects that have been designed without a logframe or where the logframe is inadequate for evaluating the project or for use in

project implementation. In this situation the analysis phase can be shortened by using the existing project objectives and developing a logical framework matrix.

## **Conclusions**

The logical framework approach provides a powerful set of tools for designing projects and project evaluations. However, like all tools, logframes are not the complete answer to effective project designing. Logframes are best used towards the end of the project design cycle after information has been collected and analysed, needs assessed, views of stakeholders sought and the external environment of the project understood. In situations where the problem identification stage is likely to be a problem in itself, the search conference and the intent structure may be more appropriate approaches for the analysis phase.

## **References**

This publication draws on the following publications:

Crombie (1983) Search Conferencing.

ITAD Ltd (1996) "the logical framework approach - a project management tool". ITAD London

IUCN (1997) Draft PDG Guidelines: A guide to the development, review and further processing of projects in IUCN. IUCN Switzerland

Prescott-Allen R. (1997) The Barometer of Sustainability. IUCN Switzerland.

USAID (1994) GENESYS Gender in Monitoring and Evaluation: A Tool for Developing Project M&E Plans. USAID Washington DC