

Logical Framework Analysis

Logical framework analysis (LFA) is an approach to planning that is used widely in relief and development programs. LFA takes planners through a series of steps to define clearly what the project or program will accomplish and how. The final product – the logical framework – is a helpful way to present a quick overview of inputs, activities, expected results, and the evaluation plan for a given project. The logical framework is a good way to present a project to potential supporters and helps to identify any gaps in project planning. Bear in mind that, while the logical framework is a useful tool, the *process* of designing it is more important than the end product.

The logical framework is a table with two dimensions – vertical and horizontal. The vertical dimension (the series of rows from top to bottom) illustrates the links between the inputs (resources), activities, outputs, outcomes, and impact of the project. The horizontal dimension (the series of columns from left to right) provides more information on how the results will be monitored and identifies other external factors that might affect the success of the project. Let's look at each dimension separately.

1. The Vertical: One thing leads to another

From top to bottom, the logical framework illustrates the steps that must take place in order to achieve the project's ultimate goal. The inputs and activities at the bottom of the framework are expected to result in certain immediate results (**outputs**) that lead to other changes in the community (**outcomes**) that in turn contribute to the overall purpose of the project (**impact**). This chain of events – sometimes referred to as the "project logic" or "results chain" clearly shows the link between the activities and the project's results, based on the project cycle (see tips 101).

The example often used to illustrate the results chain is of a person dropping a stone into a pond. The input (the stone) and the activity (dropping it) have certain results. The immediate result is a splash. After that, ripples spread

out in wider and wider circles. Soon, these ripples can reach other parts of the pond, far from where the stone was dropped. In the same way, a project usually has some immediate results (the outputs) that lead to more widespread results (outcomes and impact) over time.

It is not necessary to spend too much time trying to define exactly what an output is, what an outcome is and what an impact is. The important thing to understand is that there is a chain of causes and effects that link a set of activities with series of results: one thing leads to another.

Using **results-based management**, we start with the results that we are trying to achieve and work our way back to the activities and inputs that we require in order to achieve those results. Following the project cycle, we begin with a **situation**

assessment and analysis to clearly define the problem. Let's say that our analysis shows that children are sick and malnourished in the community. We may use a tool like the **problem tree** (tips 103) to define the roots of this problem. Having described the problem and potential solutions, we can plan our project.

We begin with the overall goal

(**purpose**) of the project. In this case, it may be to reduce the number of children who are suffering from malnutrition. One of the **causes** of malnutrition identified in our analysis was that children are not getting enough food to eat because of poor harvests following a drought when everyone lost their seed and sold their tools. One of our **objectives** may be to increase the amount of food that children are eating. One of the **outputs** required to achieve this objective could be increased food production by the families of malnourished children. The **activities** would include plowing, planting, and weeding the household farms. To do this, families would require certain **inputs**: including seeds and tools.

Once we have defined the purpose, objectives, outputs, activities, and inputs, check the logic by reading the framework from bottom to top. Starting from the bottom, you can follow the logic as a series of IF-THEN statements: IF we have these inputs (e.g. seeds and tools)

Sample Logical Framework for a seeds and tools project			
	Indicator	Data Source	Risks and Assumptions
Purpose: Reduce the prevalence of child malnutrition in community x	% of children with low weight-for-height decreased by 10%	Pre- and post-project anthropometric survey	Children have access to clean water and diarrhea is not a problem
Objectives: 1. Increase the amount of food eaten by children in targeted households 2. etc.	1. 20% more children eating at least 2 meals/day 2. etc.	1. Pre- and post-project dietary surveys (questionnaire) 2. etc.	1. The additional harvest is consumed within the hhd or sold in exchange for food that is consumed by the family. 2. etc.
Outputs: 1.1 Increased maize production 1.2 etc. 2.1 etc	1.1 Maize yield increase (kg/ha) 1.2 etc. 2.1 etc.	1.1 Field assessments by ag. promoters 1.2 etc. 2.1 etc.	1.1 Area receives adequate rainfall 1.2 etc. 2.1 etc.
Activities: 1. Distribute improved seed varieties 2. Distribute hoes and cutlasses 3. etc.	Inputs: 1. 20mt improved maize seed 2. 5000 hoes and cutlasses 3. etc.		

and do these activities (plow, plant, and weed), THEN we should produce these outputs (bags of grain harvested). IF we produce these outputs (bags of grain), THEN we should achieve these outcomes (people consume more food). IF we achieve these outcomes (people eat more food), THEN we should see this impact (improved health and nutrition).

At each stage, there are external factors that may affect the success of the project. For example, if there is another year of drought, the seeds may not germinate and so the output (a harvest) may not be realized. Also, if children are getting diarrhea because of poor drinking water, they may eat more, but they will remain malnourished. These important external factors should be noted under the **risks and assumptions** column. You may not be able to do anything about some of the risks (it is unlikely that a local NGO could stop a war from breaking out), but it is important to anticipate possible problems. The list of risks and assumptions may also help to explain why a project did not achieve all of its objectives.

2. The Horizontal: Monitoring progress

Having defined a project purpose, objectives, activities, and inputs, it is time to plan how to monitor the expected results. For each result, you will need to define an **indicator** (tips 105) that tells you whether or not that result was achieved.

For example, the expected impact – a reduction in the number of malnourished children – could be measured by the percentage of children who have a low weight-for-height according to internationally accepted standards (tips 204). Number of meals eaten per day could be an indicator of one of the project outcomes – an increase in the amount of food eaten by children from targeted households.

As well as identifying indicators to measure the expected results, the logical framework includes a column to describe the source of information for each indicator. For each indicator, you should decide how you will collect the necessary information.

For example, data for the impact indicator – percentage of children with low weight-for-height – could be collected through a pre-project (baseline) and post-project (follow-up) survey of children who were included in the project. There are many different ways to collect information. Common methods include questionnaires (tips 203), anthropometric (height and weight measurement) surveys (tips 204), and qualitative methods (such as interviews and focus groups – tips 202). It is up to the project managers to decide on the most appropriate methods.

Once the indicators and measurement methods are in place, it is quite straightforward to develop a more detailed evaluation plan since you have already identified the key pieces of information you need and how you plan to get that information. Once you have done your evaluation, you can compare the actual results of the project with the planned results laid out in the logical framework. In what ways did the project meet or exceed expectations? In what ways did it fall short of its goals?

What were some of the unexpected results? What lessons have you learned that can be applied next time around the project cycle, or in another project in another location?

The risks and assumptions – discussed in the previous section – are listed in the final column of the framework.

Other tips sheets and tools will help you with each step of the logical framework analysis. The box gives a brief summary of the process, with suggestions for tips sheets that provide more information on specific issues related to each step.

While the approach may seem tedious or irrelevant at first (even the name can be off-putting!), logical framework analysis can be a powerful planning tool. With a little patience, a healthy dose of common sense, and possibly some modifications to better suit your situation, you may find that it helps you to strengthen your own planning and evaluation process.

10 steps in a logical framework analysis:	
Step	Tips and Tools
1. Assess the situation and analyze the key problem(s), causes, and potential solutions	<ul style="list-style-type: none"> Household Economy (tips 301) FEWS Matrix (tips 302) Problem tree (tips 103)
2. Define the project purpose, as well as the specific objectives that the project will achieve by the time it is completed	<ul style="list-style-type: none"> Defining objectives (tips 104)
3. Identify the outputs that will be necessary in order to achieve each objective	
4. Identify the activities that will accomplish the expected outputs	<ul style="list-style-type: none"> Roles of food aid (tips 401) Risks of food aid (tips 402)
5. List the inputs required for the planned activities	
6. Check the “vertical logic” by starting with the activities and outputs and following the results chain (IF we do these activities, THEN we will accomplish these outputs... etc.)	
7. For each expected result, identify key risks and assumptions	
8. For each expected result (impact, outcome and output) define an indicator	<ul style="list-style-type: none"> Selecting indicators (tips 105)
9. For each indicator, identify how you will collect the required information	<ul style="list-style-type: none"> Questionnaires (tips 203) Qualitative methods (tips 202) Anthropometric Surveys (tips 204)
10. Keep the framework handy as you plan and implement your project. Use the framework as a reference when evaluating the project. What worked well? What needs to be changed? What have you learned?	

Resources

The Australian Agency for International Development (AusAID) has a useful step-by-step guide to LFA, with examples:

<http://www.ausaid.gov.au/ausguide/ausguidelines/1.html>

For more information on the project cycle, or other issues related to planning, monitoring, and evaluation, the Canadian Foodgrains Bank (cfgb@foodgrainsbank.ca).