Making Measures Meaningful
The Logical Framework Approach

By Dana Frey

The use of performance measures in financial documentation has become commonplace, even recommended, for showing skeptical taxpayers that their money is well spent. This is increasingly important as fiscal distress deepens and governments reconsider what services are provided. When there is not enough money to do everything, governments have to find a way to decide what to do, and performance measures can help.

There are two major challenges, however. The first is finding relevant and appropriate performance measures. Too often, what can be measured easily is not relevant to program results, and measures of activity (such as the number of people trained) are substituted for outcome-based measures (such as reduced poverty). Without a direct tie-in to the logic that underpins a program, many indicators fall into the “so what?” category — even if targets are met, there is no assurance that the program is successful. The second challenge is the result of implementing programs in an uncertain world. Outside factors affect results and can cause a well-designed program to fail. Activities and outputs can usually be controlled, but results — the desired changes — are subject to real-world risk, which often isn’t adequately accounted for in program design or communicated clearly to stakeholders.

Local governments in other parts of the world have adopted a useful standard for dealing with this issue: the logical framework approach, or “logframe” for short. A logframe is a method of setting out program logic, performance measures, and assumptions in one integrated table, a simple way of demonstrating that measures are relevant, appropriate, and linked to the overall success of a program. Richard Boyle, with the Institute for Public Administration in Dublin, lists a key attribute of good performance measurement design as “a consistent, comparable, and structured approach to underpin the indicators reported.”1 The simple process of developing a logframe is valuable in improving communication between a program’s implementers and stakeholders; according to the World Bank, using a logframe results in “common understanding and better communication between decision makers, managers, and other parties.”2

Program Logic

Performance measurement ideally begins with an understanding of the logic that underpins a program: how its activities — what happens day-to-day — and its outputs — what the program produces — are linked to results in the community. One tool commonly used for this is the logic model, a simple...
table in which the first column lists the activities within the program; the second, outputs; and then short- and long-term results. Although it is read from left to right, using “if-then” logic, a logic model is developed from right to left, beginning with the long-term outcome, or the reason for the program. Next comes the short-term outcome needed to achieve it, then the output needed to achieve the short-term outcome, and so on. Exhibit 1 shows an example of a very simple logic model for a jail literacy program.

Although effective, the logic model has limits. The basic logic can be very well described but not necessarily link up with performance measures (some models list measures below each of the columns) or an analysis of any associated risks. As a consequence, it becomes difficult to link outputs to outcomes, or to tie what a program produces to its near-term effect in the outside world with a high degree of confidence. But this linkage is critical: Without a detailed risk analysis, the assumption that a result will occur may be a mere leap of faith.

THE LOGICAL FRAMEWORK

While building on the advantages of the logic model, the logical framework addresses these shortcomings directly. Originally developed by the U.S. Agency for International Development, it is now a standard in the European Union, with numerous development agencies and with the World Bank. Although developed as project evaluation tool, it is also directly applicable to program evaluation.

A logframe is a 4x4 table or matrix, and its first column is essentially a logic model turned 90 degrees counterclockwise: the bottom row lists activities; the next row, outputs; the next row, results; and the top row, impacts. Columns 2 and 3 show how the objective in the first column will be measured and verified, and column 4 describes risks or assumptions outside of the implementer’s control. Exhibit 2 shows this structure.

Exhibit 3 is a logframe for the jail literacy program. The impact of this program — why it was created — is to improve safety and reduce costs. The
activities — what the implementers do — are providing books to inmates and conducting training sessions. The output — what the program produces and for what it can be held accountable — is improved literacy among participants. The result — the change in behavior attributable to the outputs — is higher employment among former participants. This result is then linked to the impact — improved safety and reduced costs.

A logframe is far more than a reformatted logic model. It is even read differently: instead of the “if-then,” right-to-left logic of a logic model (if this activity is undertaken, then this output will be produced), a logframe is read from the bottom up, using an “if-and-then” logic: if this activity is undertaken and these assumptions are met, then this output will be produced. The performance measures included show whether it is succeeding.

The process of constructing a logframe — especially in participation with stakeholders — can be as valuable as the product itself. As the World Bank LogFrame Handbook states, “Because the logframe is about results, benefits, and impact benefit outcomes, it is a useful conflict resolution for determining political outcomes. Political, because setting objectives defines how scarce resources will be used, who will benefit, and who will not.” The logframe also helps users “ask the right questions,” taking the focus away from day-to-day activities and focusing instead on results and ultimate impact, and smoothing continuity in the case of staff turnover.

### BUILDING A LOGFRAME

Constructing a logframe begins like a logic model: identifying program logic, the activities, outputs, results and impact. Starting with the impact — the top row — identify the short-term results needed to achieve this impact, the outputs needed to achieve the results, and, finally, the activities needed. Wherever possible, this logic should be bolstered by outside evidence from academic or other outside studies. Although simple, this method is limited in not readily allowing for consideration of alternative approaches to the overall program goal. It may well be that there are multiple causes of the problem that the program is to address, and completely different program structures that could work to resolve that problem.

One simple method for considering alternatives is problem analysis, or construction of a problem tree. To do so, start with the central problem a program is to address, like infant mortality or violent crime, written in the middle of a blank piece of paper and circled. Next, draw a line downward from the problem and write the question “Why?” next to that line. At the bottom of that line, answer that question by writing the question “So what?” and by listing new direct causes and their sources until all are identified. These causes become the “roots” of the problem tree. Similarly, the effects of the central problem are identified by drawing lines upward from that problem and at the end of these lines listing the reasons why the central problem is important, answering the question “So what?” These become the “branches” of the problem tree. Exhibit 4 shows an

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**Exhibit 3: Jail Literacy Program**

<table>
<thead>
<tr>
<th>Narrative Summary</th>
<th>Performance Indicators</th>
<th>Monitoring and Evaluation</th>
<th>Assumptions/Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impacts 1. Safer society 2. Reduced costs through reduced recidivism</td>
<td>1. Crime rate 2. Recidivism rate compared to non-participants</td>
<td>1. Uniform crime statistics 2. CrimNET database</td>
<td>No overall increase in crime No major economic or social disruption</td>
</tr>
<tr>
<td>Result Former inmates are able to find employment</td>
<td>Employment rate among former participants</td>
<td>Quarterly survey of former inmates</td>
<td>Adequate area jobs available</td>
</tr>
<tr>
<td>Output Improved literacy among participants</td>
<td>Improvement on standard literacy test</td>
<td>Internal literacy testing</td>
<td>Sufficient staffing</td>
</tr>
<tr>
<td>Activities 1. Providing books and materials 2. Conducting training sessions</td>
<td>1. Number of books distributed 2. Hours of sessions</td>
<td>Program records on circulation and timesheets</td>
<td>Sufficient staffing</td>
</tr>
</tbody>
</table>

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Exhibit 4 shows an
example of a problem tree concerning a polluted river. Causes are agricultural and parking lot runoff and failed septic systems; ultimate consequences are tax base loss, economic impact, and a poorer quality of life.

Identifying the correct central problem is crucial. It must be external to the jurisdiction and a problem its outputs should address, and its resolution should be the desired short-term result. A central problem may be a high crime rate or traffic accidents, and programs resolve these problems through outputs such as police patrols or road signage. For example, in the above problem tree, an output could be “improved septic system maintenance,” and an activity would be “regular inspections and record keeping.” To identify impact, “So what” questions are asked: What happens if this problem is not resolved? For pollution, this is economic damage and lower quality of life; for high crime rates, it is economic costs and poorer quality of life.

A final step is to convert a problem tree to an objectives tree by changing negative statements into positive statements for inclusion in a logframe. The central problem, pollution, would become clean water; the cause, runoff, would become little runoff; and so forth. Note that there can be more than one cause and more than one effect, and a single problem analysis can identify more than one potential program or project.

**ASSUMPTIONS AND RISK**

External factors often determine the success or failure of a program. The program can be well designed, have appropriate performance measures, and be linked to program logic, but still fail completely. Program logic and performance measures are not enough to determine whether a program succeeds. By formalizing risk analysis, a logframe accounts for risk and informs the reader about likely problems upfront.

This analysis is summarized in the last column of a logframe, which lists assumptions that must be met to reach the next higher level — output, outcome, or impact. Again, a logframe is read using “if-and-then” logic: If activi-
ties are conducted and assumptions relating to activities are met, then output will be produced. These assumptions may be obvious — staff turnover, weather events, funding reduction — but one of the strengths of this approach is that they are directly incorporated and systematically evaluated.

This risk analysis begins with activities, identifying sources of risk that could cause the desired outputs not to be produced, along with an assessment of their probability and impact, on a scale of high/medium/low. For activities, risks relate to inefficiencies or implementation issues; for outputs, program design effectiveness; and for results, assumptions as to their impact. Low-impact and low-probability risks can be ignored, and medium-impact, medium-probability risks incorporated in the logframe. High-probability and medium- or high-impact risks should force a program redesign, and if a redesign is not possible, the jurisdiction should consider scrapping the program. The final step in incorporating these risks in a logframe is stating them as assumptions, or that the risk will not occur — for example, that key staff will not depart a program or that inmates will participate.

**MEASUREMENT AND VERIFICATION**

The middle columns — performance measure and source — show the value of logframes in tying performance measures to program logic. Measures for each row should demonstrate that the activity, output, result, or impact is being successfully met, meaning that only activity measures can be used for activities and only results measures can be used for results. In the next column, the source of that measure is entered, so the user can see at a glance not only what is measured, but how (and sometimes when): a survey, financial records, graduation rates, and so on.

There are many excellent performance measurement resources, and there is no need to go into that subject further here except to stress that any measure must be linked to the appropriate level in program logic: activity, output, result, and impact. In addition, as the best impact measures often are very difficult or expensive to obtain, or require a long time to develop (e.g., waiting for children to grow into adulthood), it is important to incorporate external evidence showing that the impact will develop from the result, and sometimes that the result will develop from the outputs. Including such evidence can provide reassurance about program design.

A logframe is a method of setting out program logic, performance measures, and assumptions in one integrated table.

**CONCLUSIONS**

Constructing a logframe is beneficial in refining program logic and developing a common understanding among stakeholders, shifting the focus from activities and outputs to results and impacts. The “if-and-then” logic, incorporating risks and assumptions, helps identify external factors that contribute to the success or failure of a program, and the discipline in the selection of appropriate performance measures does not easily allow the substitution of activity measures for measures of results.

A logframe is one of many approaches to program design, evaluation, and oversight. It is not a substitute for a thorough program evaluation, and complex programs cannot be neatly described in a simple table. Logframes have been criticized for limiting creativity and flexibility in project implementation. But, all told, it does provide a useful framework for understanding and communicating the logic underpinning a program and demonstrating success — or understanding reasons for failure.

**Notes**

4. See, for example, Project Cycle Management Guidelines, the European Commission, 2004.
5. Terms used to describe the rows of a logframe vary greatly. The terms and definitions here are based loosely on the World Bank handbook.
7. For logframe-specific discussions (and much more), see the above referenced publications as well as the AusGuides from the Australian development agency, at http://www.austrade.gov.au/ausguide/Pages/home.aspx.

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