1. Introduction

The Logical Framework Approach (LFA) was first developed by Practical Concepts Inc. in 1969 for the U.S. Agency for International Development (USAID). It has since been widely adopted and adapted by the international donor community and is used for participatory project planning, as an analytic tool (See Note) for project approval, or as a monitoring and evaluation framework. The diverse purposes to which the LFA has been put to use over the years is a testimony to its enduring strengths as a management approach.

(Note: Here we refer specifically to the matrix or chart which is the product of using the Logical Framework Analysis and often referred to as the Logical Framework Analysis, logical framework, logframe or LFA.

The LFA has been used at CIDA since 1975-76, shortly after its introduction to the international donor community. At CIDA, the logical framework has always been an integral part of the project design and approval documentation, thus capitalizing on its potential to communicate complex projects clearly and understandably on one or two pages. It has also been relied on extensively as a starting point for mid-term and final project evaluations, conducted either internally or externally.

To facilitate the use of the LFA by Agency staff and the development community, CIDA's Evaluation Division published the "Guide for the Use of the Logical Framework Approach in the Management and Evaluation of CIDA's International Development Projects" (1985). Several other donor agencies have since published manuals and handbooks that also serve as guides to using the approach e.g.; "The Logical Framework Approach (LFA): Handbook for Objectives-Oriented Planning" (NORAD 1992); the "Logical Framework Approach: A Flexible Tool for
2. Purpose of Guide

With the advent of Results-Based Management (RBM) in CIDA, there was an expressed need to modify the logical framework so as to render it more "results-oriented" and less input-oriented. With 5 or 6 versions in use throughout the three bilateral Branches, there was also a need to "harmonize" the approach across the Branches. In the context of revisions to the Bilateral Roadmap in 1997 (See Note), the strengths and weaknesses of the original 16 cell logical framework were examined and modifications were made to further sharpen its utility as one of the standard results-based management tools.

(Note: Roadmap '97 is under a 60-day review after which it will be updated and revised.

The LFA was to reduced to three horizontal rows to correspond to the three levels in the chain of results: Outputs, Outcomes, and Impact. In keeping the vertical columns at four, it was decided that the issue of reach (beneficiaries or target groups) should be an integral part of the Narrative Summary and/or Expected Results. The Results-oriented LFA is designed to reflect the simple, basic logic of RBM.

The purpose of this document is therefore to provide guidance in the preparation of a results-oriented logical framework, one that uses only a 12 cell matrix and integrates the basic concepts underlying CIDA's Results-Based Management Policy. It does not attempt to be a comprehensive guide to using the "LFA" approach, but rather assumes that the reader has some prior knowledge and experience on which to draw. Some familiarity with the RBM Policy and its principles is also assumed. Should this not be the case, we recommend any of the LFA manuals mentioned above which are available through CIDA's International Development Information Centre.

The intention here is to provide Guidelines that focus on the structure of a results-oriented logical framework and to provide a relatively succinct explanation for its preparation.

3. The LFA Process

A results-oriented Logical Framework Approach (LFA or Logframe) can be used most effectively in conceptualizing projects by asking some fundamental questions of the key
stakeholders i.e., project delivery partners, beneficiaries, and donors. Why are we doing this project? What results do we expect to achieve for the resources being invested? Who will the project reach out to in terms of beneficiaries? What are the differentiated needs and priorities of women and men from the target group? How will progress toward the achievement of results be measured? The effectiveness of this approach depends on the extent to which it reflects the full range of stakeholder views and the intended outcomes of the project when responding to these questions.

Stakeholder participation is an essential ingredient when using the LFA methodology for project design and planning because it helps build the necessary level of understanding and, whenever possible, consensus. The LFA is best used to assist stakeholders:

- set strategic objectives;
- define a chain of expected results;
- identify underlying assumptions and risks
- select appropriate gender sensitive performance indicators to measure progress towards the expected results.

Like many other aspects of development, the quality of the process is sometimes as important as the completed logframe it produces. Developing a sense of ownership among all stakeholders and a commitment to continuous performance self-assessment from the very beginning will pay dividends in terms of improved implementation later in the project cycle. The LFA can help establish a common ground for discussion and shared understanding, thus forming the basis for partnership and shared responsibility for achieving results. Although producing a logical framework understandable and agreeable to all major stakeholders is the initial objective, the logframe should not remain static throughout the life of the project.

In the context of results-based management, there is a regular flow of information collected from performance indicators that informs the management decision-making process. This performance information is formally appraised, at least once a year, by the project stakeholders and used to make adjustments in the design or implementation of the project.

In the context of results-oriented management, changes to the original project logframe are inevitable and should reflect an improved stakeholder understanding of the causal relationships between the different levels of expected results and the underlying assumptions made about them. (See Section 8 below.)
4. The Logical Framework Structure

The LFA involves the preparation of a three row by four column 12 cell matrix called the "logical framework" or "logframe." A result-oriented logframe describes the logical relationships between a project's strategic components, expected results, performance indicators, assumptions and risks at the conceptual level. The logical framework should not be used to illustrate how the project would be implemented. The CIDA Project Management Strategy, the Executing Agency Project Implementation Plan and the performance measurement frameworks are better suited to that purpose (see Roadmap '97 for further details).

A description of a results-oriented logframe is provided as Figure 1 below and an explanation of its vertical logic and horizontal logic follows.

**Figure 1 - The Results-Oriented Logical Framework**

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Project No.</th>
<th>Project Title</th>
<th>Project Budget</th>
<th>CEA/Partner Organization</th>
<th>Project Manager</th>
<th>Related C/RPF Dated</th>
<th>Project Team Members</th>
<th>Narrative Summary</th>
<th>Expected Results</th>
<th>Performance Measurement</th>
<th>Assumptions/Risk Indicators</th>
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<td>Performance Indicators</td>
<td>Assumptions - Risk Indicators</td>
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<td></td>
<td>A long-term developmental result at the societal level that is the logical consequence of achieving a specified combination of outcomes.</td>
<td>Performance indicators that will provide evidence that the project has made a contribution to the achievement of the stated developmental impact.</td>
<td>Assumptions</td>
</tr>
</tbody>
</table>

**Project Goal (Program Objective)**

The program objective from the C/RPF to which this project is intended to make a contribution.

**Assumptions**
The necessary conditions that must exist for the cause-effect relationships between outcomes and impact to behave as expected.

**Risk Indicators**
Risk indicators that will measure the status of the...
## Project Purpose

The project objective which addresses the priority development needs of the identified beneficiaries and is achievable within the scope of project activities.

### Outcomes

Medium-term development results benefiting an identified target population that are achievable within the timeframe of the project and are the logical consequence of achieving a specified combination of outputs.

### Performance Indicators

Performance indicators that will provide evidence that the project has achieved the stated developmental outcomes.

### Assumptions

The necessary conditions that must exist for the cause-effect relationships between outputs and outcomes to behave as expected.

### Risk Indicators

Risk indicators that will measure the status of the assumptions identified above.

## Resource Listing

Listing by categories of resources (inputs and/or activities) required to achieve the project purpose, planned budget for each type of resource and total project budget.

### Output

Short-term developmental results produced by or for the benefit of project delivery partners that are the immediate consequences of project activities and inputs.

### Performance Indicators

Performance indicators that will provide evidence that the project has achieved the stated developmental outputs.

### Assumptions

The necessary conditions that must exist for the cause-effect relationships between inputs and outputs to behave as expected.

### Risk Indicators

Risk indicators that will measure the status of the assumptions identified above.

## 5. The Vertical Logic

The results-oriented logframe has three rows representing
different levels of analysis in a project and three columns which describe the vertical logic of the project's: strategic elements (Narrative Summary); the chain of results (Expected Results); and the uncertainties related to their realization (Assumptions/Risk).

The third column, Performance Measurement, is dealt with in Section 6.1 below. While indicators are recorded within a column, their logic is horizontal to the appropriate expected result.

5.1 Narrative Summary Column

The Narrative Summary contains the following three strategic planning elements: Resources, Purpose and Goal. The first two levels - Resources and Purpose - are specific to the project itself. The logic that links them can be illustrated with the following question. What Resources (inputs and/or activities, usually with the $ amount) will have to be invested in the project in order for the women and men from targeted population group(s) to benefit from the achievement of the project Purpose? It is important that we not only design projects to achieve meaningful results, but we must also ask ourselves, “For whose benefit and at what cost?” The Purpose statement must identify the intended beneficiaries. The first two levels of the Narrative Summary are essential to the strategic planning process and must be taken into consideration in a results-oriented logical framework.

Although the Purpose is the reason or basic motive why the project is to be undertaken, it should be defined in the context of a broader strategic objective - the Goal. This third level of the Narrative Summary makes the project - program link that is so critical to strategic planning. Projects must not be designed, selected or approved in isolation, nor in disregard of the applicable Country/Regional Programming Framework (C/RPF). The implementation of RBM in CIDA depends on a coherent and consistent approach to strategic planning based on CIDA’s mandate, its ODA priorities and policies through to the program and project levels. Country/Regional Programming Frameworks play a critical role in ensuring strategic coherence from policy to program planning to project selection. A Goal statement should, in effect, be the same as one of the program objectives from the C/RPF to which this project and other related projects would contribute. A results-oriented Logical Framework thus serves program level management purposes by ensuring that projects are identified, selected, designed and approved within the context of a strategic planning framework at the country/regional desk level.

5.2 Expected Results Column
The internal logic of the Expected Results column is based on the principle of causality running from program and project management through to the different levels of Developmental Results. Developmental Results are defined as "the outputs, outcomes and impacts that are the logical consequences of a CIDA investment in a developing country" (CIDA 1996). Developmental results should reflect the actual changes that are attributable to program and project activities.

For example, in a human resources development project, the results chain could involve: a training workshop, individual learning, organizational change/reform, client benefits and socio-economic development. When defining expected results, all the key project stakeholders should be involved. (Whenever possible, expected results relating to improvements in gender equity should be indicated at all three levels of results.) Agreeing on the different levels of results can be a difficult task. However, a good rule of thumb is to articulate outcomes so that they are realistically achievable within the timeframe and resources of the project. In addition, outcomes should clearly identify the intended beneficiaries, both women and men. In this way, if the outcomes are achieved, then the project will have achieved its stated purpose.

As illustrated in Figure 2 below, expected results are linked in cause effect relationships, in which a level of result is related to the next higher one by being a means of achievement. It may be helpful to think about the results chain as a means-ends continuum. The cause and effect linkages can be expressed with "If...Then" phrases, representing the internal logic of the project. For example: "if" the outputs are achieved as expected, "then" the project should achieve its outcomes, and; "if" the outcomes are achieved as expected, "then" the project should contribute to the stated impact. However, underlying the results chain are some important assumptions and risks that must be made explicit.

**Figure 2 - Internal Logic**
5.3 Assumptions and Risk Indicators Column

Since projects are not implemented in a controlled environment, external factors can often be the cause of their failure. Accordingly, care should be taken to make explicit the important assumptions upon which the project design is based. Assumptions describe the necessary conditions that must exist if the cause-effect relationships between levels of results are to behave as expected. Identifying these assumptions, and the level of risk associated with them not holding true, is critical for appropriate project design and risk management. Whether these assumptions hold true or not, could affect a project’s progress or success. Figure 3 below illustrates how the integrity of the results chain is dependent on the validity of the underlying assumptions about conditions external to the project.

Figure 3 - External Logic
The conditional logic of project design begins with the initial assumptions about the necessary preconditions for project start-up, i.e., available funding, government support, etc. "If" these initial assumptions hold true, "then" the expected program and project activities can be implemented. "If" the activities are achieved, "and" provided that the assumptions about the factors affecting the activities-outputs relationships hold true, "then" the outputs should be achievable. "If" the outputs are achieved, "and" provided that the assumptions about the factors affecting the outputs-outcomes relationships hold true, "then" the outcomes should be achievable.

"If" the outcomes are achieved, "and" provided that the assumptions about the factors affecting the outcomes-impact relationships hold true, "then" the contribution to the impact should eventually manifest itself.

A risk analysis should be conducted during project design to determine the probability that the underlying assumptions will not hold true and the potential effect this would have on project sustainability. When this risk assessment is completed, each assumption can be rated in terms of its potential risk e.g., high, medium or low. Measures can then be considered and resources allocated if it is feasible and cost-effective to bring the necessary external factors under the manageable control of the project delivery partners (in which case they are no longer external risks, but are within the manageable interests of the project). However, this is not generally possible when financial resources are limited. In these cases, the best alternative is to monitor the status of those risks and assumptions giving greatest attention to those
with the highest risk rating and taking corrective action when required using the project Risk Allowance, if there is one.

All assumptions should, therefore, be carefully monitored during project implementation. As time passes, the necessary conditions underlying the causal relationships may change, thus jeopardizing the integrity of the project’s internal logic.

For some projects, the use of specific risk indicators to monitor the status of assumptions would be recommended. Very simply, such a technique would involve a regular scanning of the environment in which the project is operating to determine whether the necessary conditions for project success remain present. In cases to the contrary, immediate corrective action would have to be taken to ensure project sustainability. The use of risk indicators should be reserved for either very large, complex or risky projects where the potential benefits of monitoring assumptions/risks would outweigh the additional cost of data collection and analysis.

6. The Horizontal Logic

The logic of the traditional 16 cell logical framework also consisted of two middle columns: Objectively Verifiable Indicators (OVI); and the Means of Verification (MOV). The four cells in each of these columns were meant to assist in project evaluation at each level of the vertical logic. In Results-Based Management, however, there is an emphasis on continuous performance monitoring (including self-assessment by project managers and stakeholders) requiring new methods, techniques and tools for tracking results. These can not be captured in the limited space provided in a logframe.

Consequently, the results-oriented logical framework has only one Performance Measurement column in which performance indicators are identified for all three levels of results. Dropping the MOV column keeps the results-oriented logical framework at the conceptual level of project design and also avoids the dilemma of not having enough space to adequately describe how performance self-assessment will be carried out. Another RBM tool, referred to as the Performance Measurement Framework (see Roadmap '97), fulfills the requirement to describe the planning, collection, analysis, use and dissemination of performance information formerly addressed by the MOV column.

6.1 Performance Measurement

Developing a performance measurement system begins with the identification of performance indicators. It is important that project
stakeholders agree in the initial stages on the indicators that will be used to measure project performance. Performance indicators are qualitative or quantitative measures used to monitor progress made toward the achievement of expected results, i.e., outputs, outcomes and impact.

RBM emphasizes measuring the achievement of developmental results, more than the management of process activities. At the outcomes level, for example, the information collected on performance indicators would be analyzed and used in management decision-making to keep the project on track. They could also constitute evidence regarding project success or failure. Figure 4 below illustrates how performance indicators are identified at all levels of expected results.

**Figure 4 - Performance Measurement**

There are six criteria that should be used when selecting performance indicators. Each one is presented below along with an illustrative question in guise of an explanation:

1. Validity - Does it measure the result?
2. Reliability - Is it a consistent measure over time and, if supplied externally, will it continue to be available?
3. Sensitivity - When a change occurs will it be sensitive to those changes?
4. Simplicity - Will it be easy to collect and analyze the information?
5. Utility - Will the information be useful for decision-making and learning?
6. Affordable - Can the project afford to collect the information?
Project teams, in consultation with other project stakeholders, should begin the process of identifying and selecting performance indicators by preparing a comprehensive list. (Performance indicators at the output level may be very simple.) The next step is to decide how many are needed and apply the above six selection criteria to the list. (The number of indicators per output and outcome should be limited with 3 indicators being the maximum number chosen.) Those that do not meet these criteria should be discarded. The best performance indicators from those remaining should be used and the rest kept in a reserve pool.

Developing a performance measurement system is a trial and error experience that can be improved after several cycles of data collection, analysis and appraisal. Some performance indicators may, after some use, prove not to meet the above criteria and must then be replaced from the reserve pool. The RBM principle of "learning by doing" clearly applies to performance measurement.

7. Preparing a Draft Logical Framework

The logical framework of a project can not be finalized after one mission or in one meeting of the project team or other project stakeholders. It will require several drafts interspersed with research and consultation with partners and beneficiaries (both women and men), use of technical experts (both CIDA specialists and local experts), and more discussion among stakeholders and the project team before a working logframe is ready for use during the project approval process. Who participates in this process and how it unfolds will vary depending on the unique circumstances of each project. However, there is a recommended sequence of over-lapping steps that should be followed when preparing the first draft of a logical framework.

Step One: The Narrative Summary should be prepared first, since it represents the more strategic elements of the project. This might occur at the Project Selection or Concept Paper stages in the project cycle, subsequent to a fact finding mission and stakeholder analysis. A participatory process during the project's initial stages should follow as the focus shifts to defining the Expected Results.

Step Two: Next in the process will be to achieve consensus on Expected Results and the internal logic of the project's results chain. This will take time during the planning stage, but how much time will depend on the diversity of opinion represented by the key stakeholders involved. Programming experience, lessons-learned and research can be most helpful in substantiating the
internal logic of a project and Expected Results before identifying the underlying assumptions and risks.

Step Three: The identification of the Assumptions and Risks will depend on a sound understanding of the socio-cultural, political and economic environment in which the project will be implemented. The contribution of developing country partners and beneficiaries is essential during the planning phase if a realistic identification of the Assumptions and Risks is sought. This can be accomplished by reading the logframe from the bottom up, using the "If -- And -- Then" external logic illustrated in Figure 3 above. Again, programming experience, lessons-learned and research are assets when completing this step of the logical framework.

Step Four: The final step in completing the first draft of the logical framework for a project is to identify the Performance Indicators that will be used to monitor progress made toward the achievement of each expected result. If time is limited, then the most productive approach is to focus on selecting performance indicators for output and outcome level results. Quantitative and qualitative performance indicators should be gender-sensitive, wherever possible. Again, participation by major stakeholders in this process is critical for several reasons:

- to ensure that a full range of diverse information needs are identified;
- to benefit from local knowledge of existing performance information; and,
- to build ownership of and commitment to the performance measurement process.

Following these four steps when preparing a draft logframe may not result in a finished product, but it will provide well thought out draft LFA for future development during the Project Design phase and also brings with it the benefits of consensus building amongst the major stakeholders.

8. Updating the LFA

As indicated above, circumstances change on almost all projects, and, on iterative projects, change is built into the project. With RBM, CIDA uses continuous monitoring to detect these changes and respond to them.

An important part of this change management involves keeping the LFA up-to-date so that the logic of the project, the expected results, the main performance indicators and the key assumptions reflect the current reality of the project. The logframe should be
modified, as required, and any such changes should be discussed amongst the key project stakeholders and approved or ratified at Project Steering Committee meetings.

It should be noted that while changes to Performance Indicators and Outputs may be expected and agreed to by stakeholders, changes to the Project Purpose or Outcomes (change in scope) or significant increases to the resources/funding required (cost Increase) will be governed by Section 10.6 of the Roadmap.

LFAs should indicate the version number and date and should be kept in the key documents file/binder in chronological order. The Project Closing Report will require a copy of all versions of the LFA throughout the life of the project.

9. Conclusion

It should be remembered that although a logical framework should be as complete as possible, it should not be too detailed. The logframe should remain a means to facilitate communication and a common understanding of the project among the stakeholders. It should not be a comprehensive explanation comprising all technical details. These should be given in separate documents (e.g., EA Project Implementation Plan), which will be cross referenced to the corresponding aspects of the logical framework. For the logical framework to remain useful during the life of the project, it should remain a valid summary description of the overall project and, therefore, should be revised as stakeholders agree to changes in the project design.