Chapter-3

Logical Framework:
Approach and Application

Logical Framework Approach (LFA) is a framework for designing change process, monitoring progress and evaluating impact. It is a powerful tool for project design, management, assessment, follow up and evaluation of projects. In designing change process, monitoring progress and evaluating impact, ordering the change process in a logical sequence where inputs or resources identify as necessary means for performing activities are very important. Specific activities are then identified because they result in outputs which are necessary to achieve objectives. The two terms I,e; log frame and logical framework approach are sometimes confused by many. The log frame is a document whereas the logical framework approach is a project design methodology. LFA originally developed by the American Defense Department and was first formally adopted as a planning tool for United State Agency for International development (USAID) by the end of 1960's and today it is being used, in one form or other and with different names, by major organisations in the field of development co-operation and private industry. Among these are British DFID, the OECD expert group on Aid Evaluation, ISNAR International Service for National Agricultural Research, Germany's GTZ and the Inter-American Development Bank. It has also been widely adopted by NGOs, though not without reservations and

concerns by some. In the 1990s it was often mandatory for aid organisations to use the LFA in their project proposals.

The log frame approach provides a set of designing tools which can be creatively used for planning, designing, implementing and evaluating the effectiveness, efficiency and relevance of projects and programmes. It can be used for:

- Preparing the project design in a systematic and logical way
- Analyzing the existing situation during activity preparation
- Identifying and assessing activities that fit within the scope of programme
- Establishing logical hierarchy of means by which objectives will be reached
- Identifying potential risk to achieving the objectives and to sustainable outcomes
- Establishing how outputs and outcomes might best be monitored and evaluated
- Monitoring, reviewing and evaluating project progress and performance

The different needs for LFA, depending on the role a party may have. The international donor agencies use the method for assessing, following up and evaluating projects and programmes, while implementing parties use the method for planning, implementing and following up projects/programmes.

As per SIDA, (2004) LFA is:

- An instrument for logical analysis and structured thinking in project planning
- A framework, a battery of questions which, if they are used in a uniform way, provide a structure for the dialogue between different stakeholders in a project.

- A planning instrument, which encompasses the different elements in a process of change i.e; problems, objectives, stakeholders, plan for implementation etc
- An instrument to create participation/accountability/ownership

Basic Principles of Logframe

Logframe thinking starts out with an almost trivial but nevertheless extremely important principle: first, one decides where to go and, secondly, how one may get there. In other words, objectives are formulated which can be achieved by performing a set of activities. The principle can be defined as 'a statement of policy to guide decisions and actions in a proper manner.' A principle is a sufficiently proven or tested observation. The most important principles are given below:

- The log frame should be participatory team process
- The log frame should be concise. It should not normally the two sides of a paper.
- The log frame should be treated as a free standing document and should be comprehensive to those coming to it for the first time
- If beneficiaries are included in the project, they should also take part in the design of the logical framework
- The log frame will provide a basis for subsequent monitoring and evaluation. It must therefore be kept under regular review and amended whenever the project changes occur
- The "log frame matrix" which summarizes all important planning decisions, assumptions, and resource allocations is a frame which has to be specified for operational purposes.
- Logframe should consider considered external environments and factors:

- Research projects are not isolated islands, success is to a large degree affected by a project's environment. The logframe process includes a reflection on important external factors which are crucial for the success of a given project. "Assumptions" are hypotheses about factors which are outside the managerial control of a project, centre, or the system as a whole.
- Realism and consistency:
- Logframe thinking is more than just output orientation, it requires clear (or at least plausible) specifications of the intended impact of planned products. Thus, the "hierarchy of objectives" is linked by a set of hypotheses indicating the intended impact, i.e., the utilisation of outputs and, ultimately, the resulting benefits.
- The LFA method must be used with flexibility and with a great sense of feeling of what is required in each situation.

Steps in LFA

To conduct LFA the following four major different steps may be followed:

A. Situation analysis
B. Strategy analysis
C. Logframe matrix
D. Implementation

A. Situation analysis

Prior to beginning work on activity design and the construction of a Log frame matrix it is important to undertake a structured analysis of the existing situation. LFA incorporates four main analytical elements to help guide this process. The elements are context analysis, stakeholder analysis, problem analysis, objectives analysis.

Context analysis is the background analysis of the project or programme. It is necessary to make an initial overall analysis of the project context by SWOT analysis *etc.*

Stakeholder analysis is analysis of problems, expectations, interests, motivation, attitudes and potentials of all the agencies, organizations, groups and people will influence/be influenced by the project, directly or indirectly.

The main purposes of stakeholder analysis are to understand the interests of different groups, and their capacities to address identified problems, and design activities that appropriately address institutional capacity, distributional and social issues. The tools such as stakeholder analysis matrix, SWOT analysis, Venn diagrams, and spider diagrams may be used to support stakeholder analysis.

SWOT analysis (strengths, weaknesses, opportunities and threats) is used to analyze the internal strengths and weaknesses of an organization and the external opportunities and threats that it faces.

Venn Diagrams are created to analyse and illustrate the nature of relationships between key stakeholder groups. The size of the circle used can help indicate the relative power/influence of each group/organization, while the spatial separation is used to indicate the relative strength or weakness of the working relationship/interaction between different groups/organizations.

Spider diagrams can be used to help analyse and provide a visual summary of institutional capacity.

Stakeholders: individuals or institutions that are directly or indirectly, positively or negatively be affected or influence a specific activity.

Beneficiaries: Are those who benefit in whatever way from the implementation of the Activity. Distinction may be made between:

Target group(s): The group/entity who will be directly positively affected by the Activity at the Activity Outcome level. This may include the staff from partner organizations;

Final beneficiaries: Those who benefit from the Activity in the long term at the level of the society or sector at large, e.g. "children" due to increased spending on health and education, "consumers" due to improved agricultural production and marketing.

Partners: Those who implement the Activity in-country (who are also stakeholders, and may be a 'target group').

Problem analysis is identifying the main problems. It is necessary to select these problems which are most urgent and of widest concern. Choices of problems must be from among those highlighted by an analysis of the facts regarding what are felt and unfelt needs are and establishing the cause and effect relationships which result in, and flow from, these problems. The key purpose of this analysis is to identify the 'root causes' and subsequently addressed in the activity design. A clear and comprehensive problem analysis provides a sound foundation on which to develop a set of relevant and focused activity objectives. One main tool used in problem analysis is the 'problem tree',. Problem tree is constructed by selecting a problem from the list of problems identified and relating this problem to starter problem using the cause-effect relationship. If the problem is a cause of a starter problem it is placed below the starter problem. If the problem is an effect it must be placed above of the starter problem. If it is neither a cause nor an effect it should goes at the same level. The tree should be end up with one main problem and a series of lower

order problems that branch out below the main problem. An example of a problem tree is stated below in Figure 1:
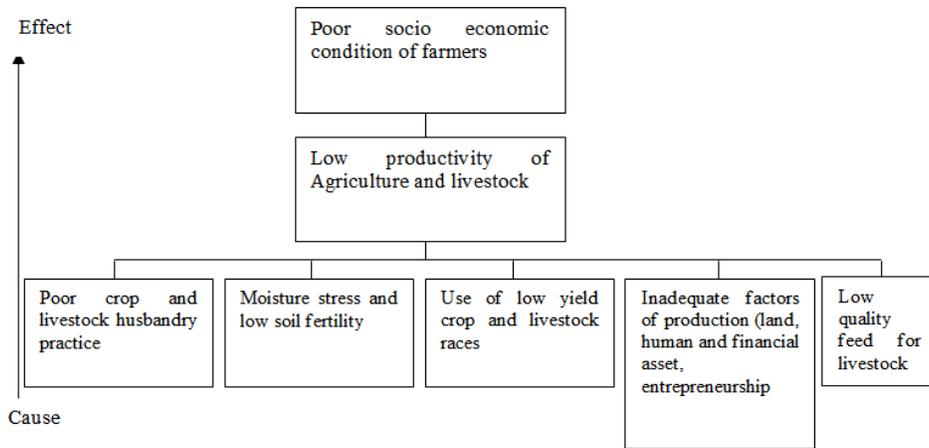

Figure-1: Problem tree

Objectives analysis is systematically identifying, categorizing, specifying and balancing out objectives of all parties involved in a specific situation. Objective trees should be prepared after the problem tree has been completed and an initial stakeholder analysis has been undertaken. The objectives tree can be viewed as the positive mirror image of the problem tree. In its simplest form, the objective tree uses exactly the same structure as the problem tree, but with the problem statements (negatives) turned into objective statements (positives). The top of the tree is the end that is desired and the lower levels are the means to achieve the end. The objectives should be SMART i.e; Specific, Measurable, Attainable, Relevant, Timely. Once these main points for the objectives have been checked as per SMART, the proposed objective tree structure can be circulated for further comment and feedback. An example of a objective tree is given below in Figure 2:
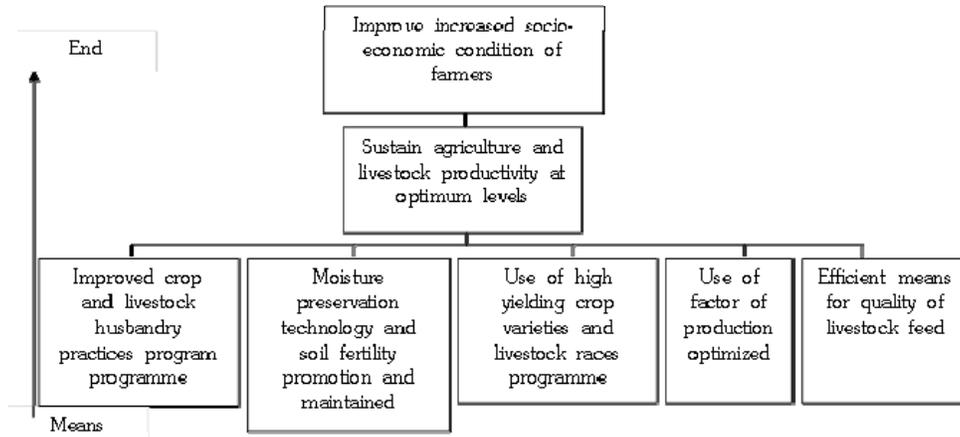
Figure-2: Objective Tree

According to SIDA(2004) the project group should set three levels of objectives: Overall objectives, Project purpose and Results. The relationship between the problem analysis and objective analysis is given below in Figures- 3:
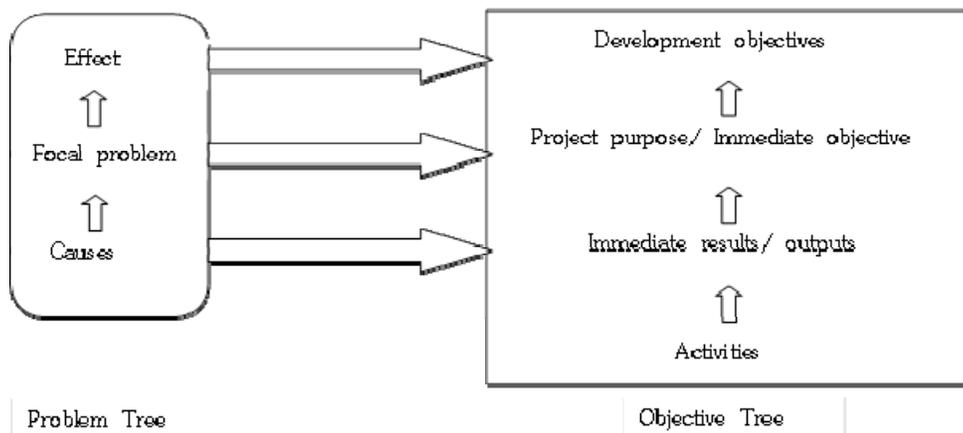

Figure-3: Relationship between the problem analysis and objective analysis

Hence the objectives are explanations of what the project is going to achieve in the short, medium and in the long run.

1. Goal/Overall Objectives/Development Objectives:

State the long-term social and/or economic (impact) benefits to which the project will contribute, and describe why the project is important for the beneficiaries and for the society. This is the highest level of objective and states the direction the project shall take, i.e. the changes which will take place in the long term partly as a result of the project. The goals constitute the long-term vision for the project owner. The objectives should answer questions such as what shall the project contribute to achieving in the long run? Why is the project important? What are the long-term policy objectives to which the project will contribute? However, some external factors outside the scope of the project are important for the fulfillment of the overall objectives.

2. The Project Purpose/Immediate Objective:

States the expected outcomes, or direct effects, of the project. These are the benefits which the beneficiares derive from the project. The purpose states why the project is needed by the beneficiaries. It clarifies why the target group needs the project. What is the focus of this project?

3. Results/Outputs:

States the service(s) the beneficiaries will receive from the project. What the project will be responsible for delivering. The outputs are the direct results of the activities that are implemented within the framework of the project. Outputs are actual, tangible results that are a direct consequence of the project's activities. Several activities are often necessary in order to reach one result/output. Results, as well as the project purpose, should be "SMART" (Specific, Measurable, Approved; Realistic and Time-Bound). The output should answer the

question such as which different components/sub-goals are needed in order to achieve the purpose and the overall objectives?

B. Strategy Analysis

The strategy analysis involves clustering of objectives and examines feasibility of different interventions. The potential merits or difficulties and risks associated with different possible interventions should have been developed and discussed thoroughly and should be omitted if not feasible on account of resources, time etc. The end of the objective tree may become the development objective. Criteria that may be used to help make a broad assessment of different intervention options could include the expected benefits to target groups, sustainability of the benefits, ability to repair and maintain assets post-activity, total cost and recurrent cost implications, financial and economic viability, technical feasibility, contribution to institutional strengthening and management capacity building, environmental impact, and compatibility of activity with sector or program priorities. The main objectives become the project purpose (immediate objectives) and the lower level objectives become the outputs or results and activities. An example of strategy analysis in continuation of problem analysis and objective analysis is shown below in Figure -4.

C. The Logframe Matrix (LFM)

One standard analytical product of the LFA is the Logframe Matrix (LFM). The Logframe matrix has four columns and usually five rows depending on the number of levels of objectives used to explain the means-ends relationship of the activity. The four columns are narrative summary, objectively verifiable indicators, means of verification and important assumptions.

Narrative summary generally defines the project structure and it comprises the following rows viz; Development Objectives/Impact,

Immediate objectives, Outputs, Activities and Inputs. The matrix is prepared based on two logic i.e; (i) vertical logic and (ii) horizontal logic.
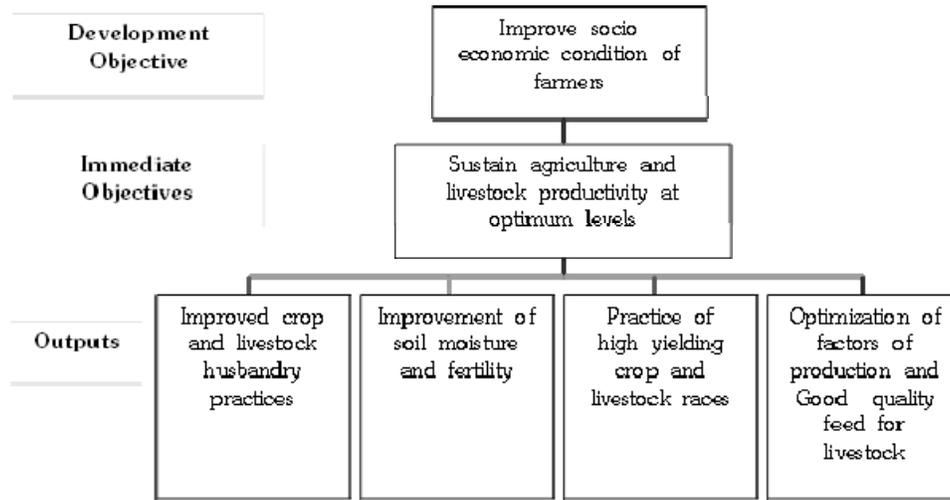

Figure-4: Strategy analysis

(i) The vertical logic (reading up and down columns 1 and 4 of the matrix) clarifies the causal relationships between the different levels of objectives (column 1), and specifies the important assumptions and uncertainties beyond the activity manager's control (column 4). If-then causality is very important in vertical logic as it establishes means-ends relationships. This can be expressed in terms of-

- if inputs are provided, then the activities can be undertaken
- if the activities are undertaken, then outputs will be produced
- if outputs are produced, then immediate objectives will be achieved
- if immediate objectives are achieved, this should then contribute to the overall goal.

Each level thus provides the rationale for the next level down: the goal helps justify the immediate objectives, and so on down the hierarchy.

The logic works this way: resources are invested in a program or project in order for it to carry out its activities. At least some of the activities should result in the production and delivery of services or products, called outputs. These outputs should cause something to change. Changes, in the short term, are referred to as outcomes. The longer-term changes caused by the program are referred to as impacts.

The horizontal logic (reading across the rows of the matrix) defines how the activity objectives specified in column 1 of the Logframe (e.g. Goal, Purpose, Outputs) will be measured (column 2) and the means by which the measurement will be verified (column 3) and the key assumptions that are being made (column 4). This provides a framework for activity monitoring and evaluation.

The components of Logframe matrix is described below in Table-1.

Table 1: The components of Logframe matrix

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumpton
Development Objectives/Impact - The long term development impact (policy goal) that the activity contributes at a national or sectoral level	How the broad achievement will be measured– including appropriate targets (quantity, quality and time)	-Sources of information -Methods of data collection -Methods of data analysis -Periodicity of data collection -Resource needed	What external factors are necessary for sustaining objectives in the long run?
Immediate objectives/ Outcomes- The effect, or result of the activities and outputs. It is the thing that gets changed because of the program–in terms of benefits to target groups	What are the quantitative measures or qualitative evidence by which achievement or distribution of impacts can be judged	-Sources of information -Methods of data collection -Methods of data analysis -Periodicity of data collection -Resource needed	What conditions external to the project are necessary if achievement of project's purpose is to contribute reaching the goal.

Outputs - What we produce? The tangible products or services that the activity will deliver	How the achievement of the Outputs will be measured– including appropriate targets (quantity, quality and time)	-Sources of information -Methods of data collection -Methods of data analysis -Periodicity of data collection -Resource needed	Assumptions concerning the Output to Component activity linkage
Activities-What we do? The main actions of the project. The description may begin with an action verb	What kind of specific task performed by the project staff?	-Sources of information -Methods of data collection -Methods of data analysis -Periodicity of data collection -Resource needed	What external factors are necessary to obtain planned output on schedule?
Inputs- What resources are used?(money, staff, facilities,equipment, and technical expertise.)	What types and level of resources provided by the stakeholders?	Sources of information -Methods of data collection -Methods of data analysis -Periodicity of data collection -Resource needed	Main external factors/ conditions required for implementation of the project over which the project manager has no direct control

The Activity Description is completed first, then the assumptions, indicators, and finally the means of verification. However, completing the matrix must be approached as an iterative process. As one part of the matrix is completed, there is a need to look back at what has been said in previous parts to review and test whether or not the logic still holds. This process will often require the modification of previous descriptions.

Goal/Impact- refers to the sectoral or national objectives which the activity is designed to contribute to, eg increased incomes, improved nutritional status, reduced crime. The goal helps set the macro-level context within which the activity fits, and describes the long-term impact that the activity is expected to contribute towards (but not by itself achieve).

Outcome- refers to what the activity itself is expected to achieve in terms of sustainable development results, if the relevant assumptions of the activity design are correct. It is the positive developmental change which the activity would produce if it were completely successful (and the assumptions were fully accurate). Examples might include increased agricultural production, higher immunisation coverage, cleaner water, or improved legal services.

Outputs- refer to the tangible products (goods and services) produced by undertaking a series of tasks as part of the planned work of the activity. Examples might include: irrigation systems or water supplies constructed, areas planted/developed, children immunised, buildings or other infrastructure built, policy guidelines produced, and staff effectively trained. The delivery of outputs should be largely under activity management's control.

Inputs- refer to the resources required to undertake the work program and produce the outputs, eg as personnel, equipment, and materials. However, inputs should not be included in the matrix format.

Assumptions: Assumptions refer to assumptions made about conditions which could affect the progress or success of the activity, but over which activity managers may have no direct control, eg price changes, rainfall, land reform policies, non-enforcement of supporting legislation.

Indicators: Indicators are measure of progress or lack of progress used to assess progress towards meeting stated objectives. An indicator should provide, where possible, a clearly defined unit of measurement and a target detailing the quantity, quality and timing of expected results.

Means of verification: Means of verification should clearly specify the expected source of the information we need to collect. We need to consider how the information will be collected eg., sample surveys, records, national statistics, workshops or focus groups, observation, PRA techniques?, who will be responsible, and the frequency with which the information should be provided? what source is most appropriate? eg Who should be interviewed? Is the source reliable? who should do it? eg extension staff, supervisors, an independent team? • when and how often should the information be collected, analysed and reported?

The logframe and monitoring and evaluation (AusAids, 2005)

The horizontal logic of the matrix helps establish the basis for monitoring and evaluating the activity. The link between the Logframe and monitoring, review and evaluation is illustrated below in **Table-2:**

Logframe hierarchy	Types of monitoring and evaluation
Goal/Impact	Ex-post evaluation
Immediate objectives/ Purpose/outcomes	Evaluation at completion and on going review
outputs	Monitoring and review
Activities	Monitoring
Inputs	Monitoring

This is of course a simplified framework, and needs to be applied and interpreted in a suitably flexible manner. For example, ex-post evaluation will include some element of assessing whether or not the purpose, immediate objectives and outputs have been achieved, and review will also assess performance in output delivery.

Monitoring: Originates from latin words 'monere' means 'warn'. It is the routine, daily assessment of ongoing activities & progress. It looks on what is being done? It is continuous assessment of programme implementation and performance.

Evaluation: Originates from latin words 'valere' means 'value'. It therefore means judging a value or worth of something. It is the episodic/ periodic assessment of overall achievements. It examines what has been achieved or what impact has been made. assessment of immediate and long range benefits.

Review: Assesses the project implementation based on consolidated report to take into account all the available evidence for accountability in project management.

Relationship between Program Stages and the Broad Evaluation Question

The first dimension to cover in front-end planning is the relationship between program stages and the broad evaluation question that will be asked. Pancer & Westhues have presented a typology as shown in Table 3.

Table 3: Typology of the Life of a Policy or Program

Stage of program development	Evaluation question to be asked
Assessment of social problem and needs	To what extent are community needs and standards met?
Determination of goals	What must be done to meet those needs and standards?
Design of program alternatives	What services could be used to produce the desired changes?
Selection of alternative	Which of the possible program approaches is most robust?
Program implementation	How should the program be put into operation
Program operation	Is the program operating as planned?
Program outcomes/effects/impact	Is the program having the desired effects?
Program efficiency	Are program effects attained at a reasonable cost?

D. Implementation

After successful completion of Logframe matrix it can then be used as a framework for preparing implementation, resource and cost schedules. Implementation should have a plan of work and it should be established by the project team. Activities leading to outputs should be specified clearly in more detail.

> 'How the LFA method works depends very much on its users. LFA is no better and no worse than its users'- Norad, 1999

The inputs required for each set of activities and/or outputs can then be specified and also scheduled over time. Finally, the cost of inputs can be determined and an activity budget estimate and cash flow calculated.

The advantages and disadvantages of using LFA

The logframe has a variety of advantages and disadvantages that should be considered in advance of any planned project, program, or policy intervention.

Advantages

- Continuity- A plan is available in black & white, the change of personnel will not be affect the tempo or direction of the work.

- Provide reliable information- When and whatever information is required about the programme, situation and resources etc., it is easily available from the records.

- Minimizing conflicts- Many conflicts like conflicts of resources, conflict of personalities etc. may arise while executing a programme. These can easily be removed at the planning stage.

- Avoiding future problems- A good planning always identifies and monitors future developments that will have a major impact on performance or results.

- Provide decision makers with better and more relevant information and ensures that decision-makers ask fundamental questions and analyze assumptions and risks

- Engages stakeholders in the planning and monitoring process

- It facilitates common understanding and better communication between decision makers, managers and other parties directly and indirectly involved in the project

- When used dynamically, is an effective management tool to guide implementation, monitoring and evaluation.

- It separates out the various levels in the hierarchy of objectives, helping to ensure that inputs and outputs are not confused with each other.

- It identifies the main factors related to the success of project as it makes easier to identify unrealistic objectives and weakness in project design.
- During implementation the logframe serves as the main reference for drawing up detailed work plans, terms of reference, budgets, etc.
- To encourage multidisciplinary approach to project preparation and supervision.
- It guides systematic and logical analysis of the inter related key elements which constitute the well designed project.
- Management and administrative benefit from standardized procedure for collecting and assessing information
- Logframe provides indicators against which the project progress and achievements can be assessed.

Limitations of the log frame model include the following:

- The LFA do not readily enable monitoring unintended consequences
- Focusing too much on problems rather than opportunities and vision
- Limited attention to problems of uncertainty where a learning or adaptive approach to project design and management is required
- The LFA often being used too rigidly leading people into a 'blueprint' approach and this can stifle creativity and adaptive management.
- Too project centered
- The full benefits of utilizing LFA can be achieved only through systematic training of all parties involved and methodological follow-up.

Despite these limitations and provided due attention is given to the participation of stakeholders and it is not used too rigidly, the LFA approach remains a very valuable tool for project planning and management. LFA is ideal for developing a project concept with inputs from all the stakeholders. It is also an excellent tool for determining how project success shall be evaluated. Power users of LFA know that the technique can also be used for assessing risk and uncertainty. Many donor agencies in India have begun to use LFA today. DFID, NORAD, SIDA and the UNDP are some of the agencies which require the use of LFA in aid projects. At present, LFA software is available and enabling much more dynamic use of the approach.

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