The Logical Framework Approach – An Introduction

1. What is the Logical Framework Approach?

1.1. The background

The Logical Framework Approach (LFA) was developed in the late 1960’s to assist the US Agency of International Development to improve its project planning and evaluation system. It was designed to address three basic concerns during project design which have been identified as the following:

- Project planning was too vague, without clearly defined objectives and indicators that could be used to objectively monitor and evaluate the success (or failure) of a project;
- Management responsibilities and tasks were unclear; and
- Evaluation of project implementation was often an adversarial process, because there was no common agreement as to what the project was really trying to achieve.

The LFA has since been adopted as a project planning and management tool by most multilateral and bilateral development agencies. The European Commission has required the use of LFA as part of its Project Cycle Management (PCM) system since 1993, and it provides a core set of tools with which to undertake assessments of project quality based upon the LFA (see separate document and for further details refer to European Commission, Project Cycle Management Guidelines, Volume 1, 2004).

1.2. The LFA as an analytical process to foster project design

The LFA is an analytical process and comprises an open set of tools used to support project planning and management. It provides a set of interlocking concepts which are used as part of an iterative process to aid structured and systematic analysis of a project idea. The LFA should be thought of as an ‘aid to thinking’. It allows information to be analysed and organized in a structured way, so that important questions can be asked, weaknesses and risks identified and decision makers can make informed decisions based on their improved understanding of the project rationale, its intended objectives and the means by which objectives will be achieved. It is crucial to adapt the LFA whenever necessary, e.g. by complementing it with other tools to meet specific circumstances and requirements. When the LFA is applied in a flexible and creative way it can be a “frame for logical work” instead of a “blueprint” resulting in “logic-less frames” or “lockframes” (see point 4. Risks and limitations of the LFA).

The LFA entails a format for presenting the results of this process, which sets out systematically and logically the project objectives and the causal relationships between them. This internal logic of a project is summed up in the Logical Framework Matrix (LFM), often mistaken as the LFA itself. In fact the LFM can be seen as a product, a summary of the entire process reflecting intense analysis.

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The LFA itself is the analytical process which consists of two phases: an analysis and a planning phase which are introduced in the following.

### 1.2.1. Analysis phase

A project usually starts with a basic idea generated from stakeholders at local, national or global level as a result of an existing, undesired situation. Ideas have to have a clear link to global benefits and national priorities.

As mentioned before the LFA is an evolutionary, iterative process starting with the profound analysis of this existing, undesired situation as a basis for later planning. Crucial steps during the analysis phase (with some of them usually performed in parallel and/or in an iterative way) are the

- Problem/situation Analysis (in EU projects incl. analysis of state-of-the-art)
- Stakeholder Analysis
- Analysis of Objectives
- Project strategy selection

which are indispensable elements during idea and project development independent from the methods or tools of your choosing.

**Problem/situation analysis** identifies the negative aspects of an existing situation and establishes the ‘cause and effect’ relationships between the identified problems. It involves three main steps:

1. Definition of the framework and subject of analysis;
2. Identification of the major problems faced by target groups and beneficiaries (What is/are the problem/s? Whose problems?); and
3. Visualisation of the problems in form of a diagram (also mind map), called a “problem tree” or “hierarchy of problems” to help analyse and clarify cause–effect relationships.

To be able to analyse the important characteristics of a situation and to develop the most concise and sustainable strategy to tackle clearly defined problems within a situation the perception of the different stakeholders involved has to be considered. This is to be done in a thorough stakeholder analysis. Ignoring the perceptions, experience and realities of the different stakeholders can only have an adversary effect on the success of projects or programmes, as experience has shown. Stakeholders and projects affect each other – in positive or negative ways. A project that does not take into account the views and needs of the various relevant stakeholders will hardly be able to achieve any objectives in a sustainable way. It is therefore crucial to start identifying and analysing the relevant stakeholders, their interests, problems, potentials, etc. at an early stage to then integrate the stakeholders accordingly into the project design and management.

The findings of the stakeholder analysis rather accompany the LFA process and can be pictured as a “transparency” that evolves throughout the early stages of the LFA project design process and should be used as an overlay be it for further elaboration or crosschecking during other LFA stages.

For EU projects, in particular in a planned participation in an FP7 funding programme, it is necessary not only to analyse the existing situation with regard to problems or negative aspects of an existing situation but it is crucial to be aware of lessons learned from other research groups and/or research projects as well as from experience and linkages with other ongoing/planned projects or programmes. It is also important to analyse not only the respective EC funding programme and call which is of interest for the project but to understand relevant country strategies (e.g. for Germany:
Hightech Strategie 2020 of the German Federal Government, BMBF-Programmes etc. and according programmes in the relevant partner countries).
Once the problem and stakeholder analysis have been brought to a satisfying level for all key stakeholders, the analysis phase enters the **analysis of objectives**. While problem analysis presents the negative aspects of an existing situation, analysis of objectives describes a future situation that will be achieved by solving the problems identified.
During the analysis of objectives potential solutions for a given situation are identified. This involves the reformulation of the negative aspects ("problems") identified into positive ones (envisioned for the future) drawing up an “objectives tree”. In the objectives tree now the objectives are structured in a hierarchical order and the former cause–effect relationships between the key problems are turned into means–end relationships between objectives (what needs to be done to achieve what?). The objectives derived should reflect the future, desired situation but should be realistically achievable (which can be achieved by e.g. qualifying the objectives). The rationale of the reformulation is to derive the objectives directly from the actual existing problems identified and not from elsewhere.

The final stage of the analysis phase involves the identification of possible solutions that could form a project strategy and the selection of one or more strategies to be followed by the project. During **strategy analysis** (or “analysis of alternatives”) a decision is being taken on which objectives will/can and which objectives will not/cannot be pursued within the frame of the project. The starting point for strategy analysis is the objectives tree. The choice of one ore more strategies is made on the basis of criteria which have to be agreed upon and defined with the stakeholders, depending on the specific project context.
Possible criteria could be: costs, urgency, resources available, social acceptability, gender aspects, time perspective of benefits, feasibility, development policy guidelines, etc. The information gained during stakeholder analysis (potentials, support, resistance, etc.) and analysis of potentials should also be taken into consideration as a reference for decision taking.

**Notabene:** It is important to understand that already during the analysis phase even if this is not specifically stated an initial analysis of assumptions and risks that might influence the success of a potential project will have to be listed and addressed for further elaboration during the planning phase.

1.2.2. **Planning phase**

The main output of the LFA is the logframe matrix (short form for logical framework matrix) – it could also be called the “product” of the LFA. The logframe matrix is a format for presenting the results of the LFA as a process, and is developed on the basis of the LFA tools applied earlier during the analysis phase:
Out of the strategy analysis (based on problem and stakeholder analysis and the analysis of objectives) the different levels of objectives are being transposed into the first column of the matrix (project strategy). During the planning phase of the LFA it is further elaborated which external factors are crucial for the projects success (assumptions), where to find the information required to assess it’s success (indicators and sources of verification) which means are required to achieve the project’s objectives and what the project will cost. On this basis activity and resource schedules can be established (activity schedules can also be formulated as work packages or work package templates complemented by Gantt Charts).
1.3. The Logical Framework Matrix (Logframe Matrix or LFM)

It is true that the Logframe matrix (see Annex) comprises 16 “boxes”, but it is not true that establishing a Logframe matrix means to “fill in the boxes”. Behind every “box” there is careful analysis and logical reasoning that has to be pursued before filling in the boxes which is only the final activity, the product.

If this process is not carried out during idea and project development – and this applies to project development in general, independent from the preferred method or strategy – poor, unstructured project design and a lack of ownership among stakeholders will most likely result. The quality of a project summary (presented in form of a matrix) always depends on the quality of the analysis work done before establishing the summary.

What was said earlier about the LFA as a whole approach can also only be true for the logframe matrix as its principal outcome: flexibility in its use is essential as it is based on the analysis of an existing situation, and situations or circumstances can change as the project develops. Those changes might have to be taken up by reviewing and adapting the project design – and the matrix consequently. A logframe matrix should reflect a project strategy derived from the careful analysis of an existing situation – not vice versa.

Within the **vertical logic** of the matrix (first column = project strategy) it can be identified what the project intends to achieve and how (clarifying the causal relationships between the different levels of objectives), specifying important underlying assumptions and risks (fourth column of the matrix).

Within the **horizontal logic** of the matrix indicators to measure progress and impact are specified and the sources or means by which the indicators will be verified.

The matrix serves as a summary of the key information on the project. It provides an easy overview that allows a quick assessment of the consistency and coherence of the project logic.

1.4. The LFA as a tool to improve project implementation and management

The applicability of the LFA is not restricted to project design but also encompasses the project management during the implementation phase and allows strategic monitoring and evaluation.

One of the major tasks of project management during implementation is to verify that a project is actually achieving the intended objectives. An important means to do that is monitoring.

The logical sequence laid down in the LFA between activities (that, carried out lead to) – outputs (that, achieved will lead to the achievement of the) and immediate objective helps to choose monitoring indicators. The milestones defined in the activity schedule (based on the LFM) form part of the basis for monitoring.

Monitoring helps to see whether objectives are achieved as intended, or whether there are deviations from the initial plan. If this is the case it can be analysed why there are deviations, what the problems are in implementing the project as intended and what could be done to either keep the project on the planned track or, if necessary, what could be alternatives to the original plan. The transparency and structure provided through the application of the LFA during project design, laying open the basis for the planned action (analysis of initial situation) and the rationale behind the project design (logical sequence between different levels of objectives and the role of external factors) can facilitate project monitoring considerably.
2. Benefits associated to the application of the LFA

Used in a flexible and creative way and building on experience, insight and reflexion the LFA contributes to:

- Improving the project design
- Fostering the project performance
- Facilitating the project management

The LFA can help to achieve:

- **A structured project design process.** LFA suggests a logical sequence, interlinking the individual steps in the design process.
- **Transparency.** The reasons why a certain project is meant to be implemented are laid open (what are the problems and whose problems are they?) as well as the internal logic of the project design (what is the project expected to achieve and how?).
- **Participation** of the stakeholders involved in the project design and management, which is an essential prerequisite for the sustainability of a project.
- **A consistent project strategy.** The LFA provides tools to clearly link causes and effects. To better assess risks it also takes into account external factors that are crucial for the success of the project, but lie outside the control of the project.
- **Objectively verifiable indicators.** Indicators describe objectives in measurable “empirically observable” terms and provide the basis for performance measurement and project monitoring and evaluation.
- **Flexibility** in adapting to changing conditions (that are of relevance for the project). The LFA establishes a framework that makes the underlying rationales and assumptions transparent and helps to react to changes by, e.g., revising the design.

The most important benefit however has to be the coherence and compatibility of the LFA as a design approach for EU projects with the Project Cycle Management adopted by the European Commission in the early nineties for their own project and programme design and implementation processes. The structure of the LFA is matching the PCM-derived structure of the EC evaluation criteria which is also applied during the evaluation of proposals submitted in EU Calls. By using LFA you will make it easier for EC evaluators to assess your project idea which will almost always result in higher scores. Furthermore the usage of LFA during project implementation will significantly facilitate monitoring of your project, not only for you and your project partners but also for EC peer reviewers which will result in a better project performance.

3. Link to the Project Cycle Management (PCM) of the European Commission

In 1992 the European Commission adopted “Project Cycle Management” (PCM) as its primary set of project design and management tools (based on the Logical Framework Approach). Project cycle management is a complex and creative process – as much art as science – involving the negotiation of decisions acceptable to key stakeholder groups. Teamwork, negotiation and communication skills are thus central to effective PCM, as is an appreciation of the political context within which decisions are being made.
PCM provides an overall analytical and decision making framework, which must nevertheless be complemented by the application of other specific ‘technical’ and ‘process’ tools.

The LFA is a core tool used within the EC’s Project Cycle Management fulfilling the following functions:

- It is used during the identification stage of PCM to help analyse the existing situation, investigate the relevance of a proposed project and identify potential objectives and strategies;
- During the formulation stage, the LFA supports the preparation of an appropriate project plan with clear objectives, measurable results, a risk management strategy and defined levels of management responsibility;
- During project/programme implementation, the LFA provides a key management tool to support contracting, operational work planning and monitoring; and
- During the evaluation and audit stage, the Logframe matrix provides a summary record of what was planned (objectives, indicators and key assumptions), and thus provides a basis for performance and impact assessment.

4. Risks and limitations of the LFA

There are a number of risks involved when the LFA is applied improperly. In addition there are a few aspects that have been criticised as conceptual weaknesses or limitations of the LFA. In the following these risks in the application and conceptual limitations of the LFA are summarised under three key words:

a. Logic-less frames

One improper use of the LFA is that often only a matrix is drawn up, and the matrix is drawn up after the project has already been designed. In this case the LFA is not used to guide the whole project design process. Instead, only the format used to summarise the findings of the LFA process is applied to describe a pre-existing design, rather than create a logically solid one. The result is a “filling in the boxes – exercise”.

b. Lack-frames

One of the LFA’s limitations criticised is that in complex and sometimes even relatively simple project settings the logframe can be too simple for describing the project design so that important aspects are left out. The logframe matrix in this case is no summary of a project’s key aspects but rather a “lack-frame”. The logframe matrix may be complemented by additional important information, but by doing this the idea of the matrix as a project summary providing a rather quick overview of the most important aspects of a project does not exactly hold true any more. Nevertheless, the LFM, for example in addition with a Gantt Chart, budget tables or complementary sketches still provides an excellent format for summing up the project strategy compared to forcing all stakeholders to read narrative texts to understand the main project idea. Furthermore, often the LFM seems to be too simple for describing the project design because the project design is too complex (= not feasible) or not coherent. That way, the LFA can help identifying basic issues during project design at an early stage (before EC evaluators do – and they will!).

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2 European Commission, Project Cycle Management Guidelines, Volume 1, 2004
c. Lock-frames

Another risk with the application of the LFA that frequently occurs is the freezing of analysis and planning results derived from an initial situation by leaving a logframe matrix, once it has been drawn up, as it is without updating it. The result is a “lock-frame” that limits flexibility. As mentioned a number of times during the introduction to the LFA, the logframe matrix should always reflect changes (be it in the analysis of the project’s environment, concerning the objectives envisioned for the project, etc.), and stay flexible.

In short: The results that can be achieved by applying the LFA strongly depend on how this set of tools is being applied.
## Annex 1 – Logical Framework Matrix

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Indicators</th>
<th>Means of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wider Objective</strong></td>
<td>Measures of the extent to which a sustainable contribution to the goal has been made.</td>
<td>Sources of information and methods used to collect and report it.</td>
<td></td>
</tr>
<tr>
<td>Goal: The broader development impact to which the project contributes – at a national and sectoral level.</td>
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<tr>
<td><strong>Specific Project Objectives</strong></td>
<td>Conditions at the end of the project indicating that the purpose has been achieved and that benefits are sustainable.</td>
<td>Sources of information and methods used to collect and report it.</td>
<td>Assumptions concerning the purpose/goal linkage.</td>
</tr>
<tr>
<td>Purpose: The development outcome expected at the end of the project. All components will contribute to this.</td>
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<tr>
<td><strong>A. Outcomes</strong></td>
<td>A. Measures of the extent to which component objectives have been achieved and lead to sustainable benefits. Used during review and evaluation.</td>
<td>Sources of information and methods used to collect and report it.</td>
<td>A. Assumptions concerning the component objective/purpose linkage.</td>
</tr>
<tr>
<td>Component Objectives: The expected outcome of producing each component’s outputs.</td>
<td>B. Measures of the quantity and quality of outputs and the timing of their delivery.</td>
<td></td>
<td>B. Assumptions concerning the output/component objective linkage.</td>
</tr>
<tr>
<td><strong>B. Outputs</strong></td>
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</tr>
<tr>
<td>The direct measurable results (products, processes and services) of the project which are largely under project management’s control.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activities / Work Steps</strong></td>
<td>Resources you need for carrying out the tasks, i.e.</td>
<td>All costs emerging from inputs/resources</td>
<td></td>
</tr>
<tr>
<td>The tasks carried out to implement the project and deliver the identified outputs.</td>
<td>- Staff</td>
<td>- Staff costs</td>
<td></td>
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<tr>
<td></td>
<td>- Equipment</td>
<td>- Equipment</td>
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<tr>
<td></td>
<td>- Travelling</td>
<td>- Travel costs</td>
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<td>- Printing &amp; Publishing</td>
<td>- Printing &amp; Publishing</td>
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<td></td>
<td>- Marketing</td>
<td>- Marketing costs</td>
<td></td>
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<tr>
<td></td>
<td>- Other</td>
<td>- Other costs</td>
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