**Chapter 1: Project Planning and Preparation**

**1.1. Basic Concepts**

**1.1.1 Concept of a Project**

A project is a complex set of activities where resources are used in expectation of returns and which lends it to planning financing and implementing as a unit. A project usually has a specific starting point and a specific ending point intending to accomplish specific objectives. It usually has a well-defined sequence of investment and production activities and a specific group of benefits that can be identified, quantified and valued either socially or monetarily. Projects also have boundaries which make it distinguishable from each other. In addition to its time sequence of investments, production and benefits, the project normally has a specific geographical location, with identifiable targets and beneficiaries.

To enable analysis of projects as defined above, a project format is conventionally used. This format provides an analytical framework for a proposed investment in which the cost and benefit accounts are prepared year by year in the form of a project cost and benefit stream. Information from a wide range of sources feed into the framework. Since a good plan depends on accurate information, the framework enables various specialists to judge the accuracy of the information provided and the appropriateness of the assumptions. The format gives an idea of costs, year by year, so that those responsible for providing the necessary resources can do their own planning.

The administrative and organizational problems likely to be encountered during implementation are also detailed in the present project format. This enables the planners to make arrangements for strengthening the project management if this appears weak. At the same time managers, planners, and stakeholders are given better criteria for monitoring the progress of implementation, as the objectives, targets and work plans are set out at the onset of implementation.

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The project format facilitates systematic and objective examination of results of alternatives. For instance, the effects of a proposed project on national income and other objectives can be compared with the effect of projects in other sectors, or other projects in the same sector, or alternative formulations and design of the same project including not undertaking the project altogether.

Once national objectives are known, unreliability of data at the national level can be overcome by confining the project meant to achieve a national objective in a specific location with a specific target and beneficiaries. Thus local information on which to base the analyses can be efficiently gathered, field trials undertaken and judgment can be made about social and cultural institutions that might influence the choice of project design and its pace of implementation.

* + 1. **The Link between Projects and Programmes**

It is necessary to distinguish between projects and programmes because there is sometimes a tendency to use them interchangeably. While a project refers to an investment activity where resources are used to create capital assets which produce benefits over time and has a beginning and an ending with specific objectives, a programme is an on-going development effort or plan.

A programme is therefore a wider concept than a project. It may include one or several projects at various times whose specific objectives are linked to the achievement of higher level of common objectives. For instance a health programme may include a water project as well as construction of a health centre both aimed at improving the health of a given community which previously lacked easy access to these essential facilities. Projects which are not linked with others to form a programme are sometimes referred to as “stand-alone” projects. Such kind of projects is not usually driven from programs.

* + 1. **Types of Projects**

Basically three types of projects can be identified depending upon how new resources committed to them relate to existing economic activities. First the **largest type of project**, around which project analysis grew up, involves new investment. New investments are designed to establish a new productive process independent of previous lines of production. They often include a new organization, financially independent of existing organizations. Secondly there are **expansion projects** which involve repeating or extending an existing economic activity with the same output, technology and organization. Thirdly there are **updating projects** which involve replacing or changing some elements in an existing activity without major change of output. Updating projects involve some change in technology but within the context of an existing, though possibly reformulated organization. With changing economic circumstances the balance between these types of projects may change. New investments predominated in developing countries in the 1960’s and 1970’s. However with declining investment resources and limited access to operational inputs, the proportion of expansion and updating projects has increased.

Whatever type of project is being analyzed, the effect of using new resources has to be distinguished from the effect of existing operations. The incremental resource cost has to be identified, that is that will be committed in a project over and above what would otherwise have been used. Similarly the incremental benefits, the additional benefits over and above what would otherwise have occurred, have to be identified. Both incremental costs and incremental benefits have to be valued. For new investments the whole of the output and the whole of the costs will be incremental for expansion and updating projects, the effects of the new resources have to be separated from the effects of the existing resources.

Project costs are generally easier to identify and estimate than project benefits. Costs may be met directly by a particular institution; benefits are frequently more diverse. A distinction can be drawn between directly productive and indirectly productive projects. The former are those where the immediate costs and benefits accrue to a single organization; a consequence is that this organization is able to calculate and commit any resulting surplus to new activities. Indirectly productive projects broadly speaking are those where the benefits received from new resources do not accrue to the organization responsible for carrying the costs. In these circumstances, any resulting surplus is not concentrated in the hands of a single organization. Most infrastructure projects, such as roads are indirectly productive; the benefits accrue to users and producers whilst costs are met by government. Of course, several projects, especially large ones, may be a mixture of directly and indirectly productive activities, for example, a rural development project involving both increases in agricultural output through farmer investment as well as roads, schools and other infrastructure facilities. The importance of the distinction between directly and indirectly productive projects is that benefits from new resources are more difficult to estimate in the case of indirectly productive projects. Nonetheless whenever possible they should be incorporated in the project statement.

**CHAPTER-TWO: PROJECT CYCLE MANAGEMENT**

* 1. **Project Cycle**

A cycle is a sequence of events which a project follows. These events, stages or phases can be divided into several equally valid ways, depending on the executing agency or parties involved. In practice this division is less distinct than that discussed here, with elements of one activity spilling over into one or more of the others. In fact comprehensive project planning should be an iterative or repetitive process whereby results in one stage of the project influence decisions in the other stages.

**Stage 1: Project Conception**

At this stage, an idea regarding a required intervention in a specific area to address an identified problem is formed or developed. This idea is usually hatched through discussion by specialists and local leaders in a community as a need-based issue and crystallized into a proposal.

The project can therefore be conceived on the basis of:

* Needs – to make available to all people in an area minimum amount of certain basic material requirements or services. A needs assessment survey establishes the urgency for intervention;
* Market demand –domestic or overseas;
* Resource availability –opportunity to make profitable use of available resource.
* Technology – to make use of available technology
* Natural calamity –hedging or protective method against the adverse effects of natural events as drought or floods; and
* Political consideration

**Stage 2: Project Identification**

Potential projects arising from the ideas crystallized in the first stage above are determined. The information in the proposal from project conception may be submitted by an individual or community representative to an agent or agency capable of identifying an institution to provide the necessary support to realize the expectation. The type of information provided at this stage is usually general and descriptive.

The information is basically provided to justify an intervention through an expression of a felt need in the area. Usually some objective judgment is applied to assess the proposal or set of proposals to establish if the proposal can proceed to the next stage in the cycle. In many ways, stages 1 and 2 are so interlinked that some prefer to consider both as forming the **“identification phase”**.

**Stage 3: Project Preparation**

This stage involves a more through exercise of collection of data and information on the proposed project. The exercise is conducted by personnel with technical and analytical skills in consultation with the target and beneficiary community.

At this stage of the cycle the objective of the project is defined and alternative solution described. The project preparation contains the design of a set of operational proposals that are technically, financially and economically feasible. Decisions are made on the scope of the project, location, site and size, among others. The detail of a feasibility study depends on the complexity of the project and on how much is already known about the proposals.

In fact a succession of increasingly detailed feasibility studies are sometimes called for in complex projects. The feasibility studies provide an opportunity to shape the project to fit its physical and social environment and exclude preparation relatively poor alternative ways of achieving the project goal. A careful preparation may cost up to 10 percent of the total project investment but this is absolutely necessary to ensure the project’s effectively.

**Stage 4: Project Appraisal**

Project appraisal involves a further analysis of the proposed project. At this stage, a critical review of the proposal is undertaken. The systematic and comprehensive review is usually undertaken by an independent team of experts in consultation with the stakeholders of the project. This provides an opportunity to re-examine every aspect of the project plan to assess whether the proposal is justified before large sums are committed. The appraisal process builds on the project plan but may involve new information if the appraisal team feels that some of the data used at preparation or some assumptions are faulty. The implications of the project on the society and the environment are also more thoroughly investigated and documented. Similarly, the technical design, financial measures, commercial aspects, incentives, economic parameters are thoroughly scrutinized. On the basis of an appraisal report, decisions are made about whether to go ahead with the project or not. The appraisal may also change the project plan or develop a new plan.

**Stage 5: Project Selection**

After appraisal, the visible project proposals are chosen for implementation on the basis of the priorities of the stakeholders and the available resources. For instance, Treasury may impose a ceiling on the ministries with a big portfolio of investments, calling for prioritization of the core and lower priority projects.

**Stage 6: Negotiation and Financing**

Once the project to be implemented is agreed on for donor funded projects, discussions are held on funding and associated aspects of funding such as conditionals for grants, repayment period and interest rates of loans, flow of funds, contributions from stakeholders and if there is co-financing or not. This culminates into an Agreement Document for the project which binds all the parties involved during implementation of the project. Such process exist particularly in business projects but is social service projects, funding mainly granted with the intention of addressing problem of the target population or improving their life.

**Stage 7: Planning for Implementation**

This is the stage either before actual implementation begins or before the start of a new implementation phase of the project. The exercise is conducted at the level of the project and involves the implementers, the beneficiaries and the funding agency or all stakeholders. The exercise involves enabling the realism of project objectives, scope, financial arrangements and implementation schedule given the overall resource structure of the project and the working environment. The likelihood of further changes occurring either in design or physical and policy environment to affect the project are also discussed.

During the exercise, the team should define, as clearly as possible, the objectives and hierarchy of objectives. One technique for defining and analyzing the objectives is the Logical Framework (LF) Approach or Goal Oriented Project Planning (GOPP). It allows definition of activities, or inputs, outputs and objectives with corresponding verifiable indicators and assumptions to attain the goals of the project. A plan of operation for a specified period is usually desirable to form a basis for activities to be undertaken during the plan period.

**Stage 8: Implementation**

This is the crucial stage of any project since the objective of the earlier effort in the stages above was to have projects to be undertaken. At this stage, activities of the project are actually carried out and funds are disbursed to facilitate the activities. The management should ensure that the project is carried out according to the design. However, depending on the physical and policy environment, there may be need for flexibility in response to the reality on the ground. Monitoring of progress and reporting, therefore, becomes crucial implementation is a process of refinement or learning from experience and actually be considered as a “mini cycle” within the larger project cycle.

The implementation period usually has three phases the investment period, the development period, and full development. This forms the life of the project. The investment period refers to when the major project investments are undertaken and could take one to three years, depending on the nature of the project. The development period occurs as the production peaks up and continues until the project ends. Both financial and economic analyses of the project relate to the time horizon.

**Stage 9: Monitoring and Reporting**

This should be an on-going activity during implementation. Monitoring can be carried out by the beneficiaries, the managing staff, supervisory staff and the project management staff. The aim should be to ensure that the activities of the project are being undertaken on schedule to facilitate implementation as specified in the project design. Any constraints in operationalizing the design can quickly be detected and corrective action taken. This would enable the management to be proactive (take initiative) rather than being reactive in correcting mistakes during implementation. The channels of communication should also be clear and easy to allow transparency and accountability for all staff involved. Thus relevant actions, results and barriers to implementation should be monitored for smooth implementation.

**Stage 10: Evaluation**

This stage involves a systematic review or examination of the elements of success and failure in the project experience during the project life to learn how better to plan for the future. This implies that evaluation is a continuous exercise during the project life and is much related to project monitoring. Monitoring provides the data on which the evaluation is based. However, formalized evaluation is undertaken at specified periods. There is usually a mid-term and a terminal evaluation. Evaluation can also be undertaken when the project is in trouble as the first step in a re-planning effort. Careful evaluation is also undertaken before any follow-up project.

Evaluation can be done internally or by external reviewers. Some organizations have monitoring and evaluation units. Such a unit can provide project management with useful information to ensure efficient implementation of projects, especially if it operates independently and objectively, because what the unit needs is to judge projects on the basis of objectives, original project design and the reality on the ground (the operating physical and policy environment). With no free hand, the feedback mechanism will be stifled and information be “held-back” instead of being “fed-back”. Some projects may be subjected to external evaluation. The aim of evaluation is largely to determine the extent to which the objectives are being realized.

**CHAPTER-THREE: ANALYSIS FOR PROJECT IDENTIFICATION**

* 1. **Analysis for project identification and selection**

Participatory planning approach consists of analysis around four sequential areas.

**1.3.1. Participation Analysis or Stakeholder Analysis**

Participation or stakeholder analysis seeks to identify the major interest groups involved (all those affected by or involved) in the project. The conditions and characteristics of local community groups and organizations likely to be affected are identified and analyzed to establish whose problems merit priority solution. The idea is to involve at least a representative of each interest group, if possible, in the subsequent analysis of problems. If not possible, the workshop should try to perceive problems from each of their perspectives.

It should be noted that even if people come from a particular area their interests and problems may differ, depending on the organization and on social classes to which they belong. Even within a group, men and women can have different problems. Moreover, several groups with conflicting interests may exist within a community and in extreme cases; some groups may even be anti-development. Therefore, it is desirable at the outset to identify to clarify different social, political, economic, cultural and religious background of potential target group members.

*1.3.1.2. Group categorization and detailed group analysis*

The following is an example of how the stakeholders can be categorized into groups before subjecting them into a detailed analysis.

* 1. ***Target Group Identification***

A target group is the main group for which positive change is desired and intended by implementing the project. Usually, it is selected from among the groups identified in the group categorization stage of participation analysis. Selection is through a process of considering which groups’ interests should be given the highest priority or which group is the most deserving this project.

Once a target group is identified, their unique or core problems, the causes of the core problem and impact of the core problem can be identified and easily analyzed. In cases where a consensus is hard to reach out on the deserving target group, a tentative group can be selected for the purpose of initial analysis and be changed later if an alternative group is found to deserve a higher priority.

* 1. ***Group Categorization***

Group categorization can be done in many ways but the following is the generally accepted one:

***Beneficiaries***: Groups likely to benefit from the expected project;

***Negatively affected groups:*** Groups likely to be adversely affected by the expected project;

***Decision makers***: Groups with decision-making authority

***Funding agencies***: Groups which can bear expenses

***Implementing agencies***: Groups which can implement the expected project

***Community leaders***: Groups representing the community and actively participating and sometimes running the projects or take leadership and facilitation role at the end.

***Potential opponents***: Groups which may oppose or obstruct a project because of its design;

* 1. ***Supporting groups***: Groups likely to co-operate with the expected project actually they are not funders, but they have special association to the project, e.g. if HAPCO fund a project intended to check spread of HIV in the higher educational institutions, ministry of education and ministry of health can be potential supporting groups.
  2. ***Detailed Group Analysis***

Detailed group analysis is done using several factors. Characterize the community members to be affected by the project by considering the following major issues:

* + - Interests;
    - Potential or actual conflicts
    - Inter-dependencies
    - Social relationships (social capital).

Structure, organization, size, and leadership are important aspects in a group. Social, religious and cultural backgrounds and gender issues as well as economic, political, and institutional aspects should be given consideration.

Problems, needs and demands of the group should be identified and be related to the group. Also to be identified are: potentials, strengths, weaknesses, constraints and opportunities.

* Strengths of the group, and abilities and potentials that can be developed;
* Constraints and weaknesses of the group that may hinder development of such potential.
* Implications for project planning should also be established.
* Roles and positions of groups within the expected project should be carefully examined;
* Benefits and adverse effects of the expected project should be spelt out; and factors that could possibly impede implementation of the expected project, glaring or hidden opportunities should be anticipated.

**1.3.2. Problem Analysis**

Planners use a problem tree analysis technique to identify all the problems surrounding a given problem condition and displaying this information as a series of cause and effect relationship. A problem tree approach can also be used for a general diagnosis of a problem in some situation or organization. In this case no specific problem needs to be taken as the starting point. Instead all existing problems are identified and then interrelated in the cause and effect linkages for the situation as a whole.

The problem analysis begins with identifying a *core problem* (the trunk). The tree is then expanded upwards and downwards as the causes and effects of the problem are identified.

1. ***Procedure of a Problem Analysis***

Begin with the specific problem or *need to be solved*. List all other interdependent conditions and problems, brain storming or other group’s idea generating techniques can be used, or simply ask the following questions for each problem as it is identified:

* + What is this problem caused by?
  + What does this problem cause?

To ensure a more complete diagnosis, include as many relevant perspectives as possible as discussed in the participation analysis earlier.

1. ***The clientele – those affected by the problem***

* Top decision-makers
* Ordinary people within the organization or setting
* Appropriate experts
* National or regional planning organization
* The view of unbiased outsiders
* Others involved.

Using separate sheets of paper for each, arrange identified problems and interdependent conditions in their logical, cause and effect relationship, in the form of a “tree”. Make sure all elements are correctly connected by arrows indicating the directions of causal linkage. The resulting diagram represents a rough but effective causal “model” of the complete problem environment from the root cause of the problem to the impact of the problem. For easy reference, the main procedural elements are stated below as a sequence of analytical steps.

1. ***Problem Tree steps***
2. Identify major interest groups involved (all those affected by or involved in the project)
3. Involve a representative of each, if at all possible, in your analysis of problems. If not possible, try to perceive from each of their perspectives as described in the participation analysis section.
4. List as many problems as possible from each of the above perspectives, remembering that a problem is not the absence of a solution but the difference between what is desired and what the current state of affairs is;
5. For each of the problems you have listed above ask yourselves what are (could be) the major causes. Add any new problems that you have discovered to the list;
6. For each of the problems on the list ask: what are the most important problems to your list;
7. Structure the above problems in cause-effect relationships, checking to see that you have not overlooked linkages or other important causes or effects.
8. Review your logic to see if your cause-effect relationships are correct and to see if you have omitted any linkages or major causes or effects. (It may help to show it to someone who has not been involved in its development for an objective critique); and
9. Change as needed.

**Problem Tree Analysis**

**What is it?**

The Problem Tree method is a planning method based on needs, however it is not a mechanical translation of problems into objectives. While going through the process, taking the different steps, there is continuously room for opportunities, new ideas and contributions from the involved parties. Problem Tree Analysis should be followed by actual project planning, e.g. with the Logical Framework approach. Alongside, or interwoven with the steps of Problem Analysis (at target group level) and project planning (for the target group), one should analyze the capacity and intentions of stakeholders and the wider institutional context, so that relevant and realistic choices can be made on who does what.

**Process**

A properly planned project addressing the real needs of the beneficiaries is necessarily based upon a correct and complete analysis of the existing situation. The existing situation should be interpreted according to the views, needs, interests and activities of parties concerned. It is essential that all those involved accept the plans and are committed to implement them. The Problem Tree Analysis belongs to the family of *participatory* planning techniques, in which all parties involved identify and analyses the needs together. Participatory methods aim to create ownership and commitment among the involved parties (e.g. beneficiaries, implementing organizations, local governments).

Three stages in the analysis process in the Problem Analysis method will be discussed:

• The **analysis of problems** related to the subject (the image of reality);

• The **analysis of objectives** (the image of a future, improved situation);

• The **analysis of strategies** (the comparison of different chains of objective).

There are several complementary methods to analyses a situation:

• Expert studies giving answers to questions as experts conceive them;

• Interviews with representatives of concerned groups and organizations providing perceptions as existing within that particular group or organization;

• a meeting, in which representatives of all parties concerned, including experts, discuss the same questions in a participatory way, often leading to an analysis, which is shared by all (e.g. Participatory Rural Appraisal). The problem analysis is of major importance with regard to project planning, since it strongly influences the design of a possible intervention(s). It is the basis and the justification for the project design. The problem analysis includes:

• Verification of the subject of analysis;

• Identification of problems related to the subject; make and inventory of all problems perceived by all participants in the workshop;

• Establishment of a cause-effect hierarchy between the problems;

• Visualization of the cause-effect relations in a diagram.

It is important that all participants get the chance to express the problems they experience. After discussion and clarification by the ‘problem owner’ all problems should be respected.

It is important to determine whether the different groups of people perceive the problem in the same way; if not the problem should be reformulated or split. For example, if the problem mentioned is ‘our family income is not sufficient’, for a woman it could mean that she cannot buy vegetables and meat, whereas for the man in the family this could mean that he is not satisfied about the yields.

**1.3.3. Objective Analysis**

An objective tree is a technique for identifying the objectives that will be achieved as a result of solving the problems cited in the problem tree. The objectives are also displayed as a series of cause and effect relationships. E.g. what is the objective of HAPCO’s initiative to design a preventive project in higher educational institutions? What was the problem first identified? Always, objectives are derived from problems.

1. ***Procedure***

Examine the problem tree to determine which problems can be simply reversed into objectives by restating negative conditions as positive conditions. Recognize that not all casual relationships are simply reversible, so that solving one problem automatically solves those it caused. For example, although flooding destroys crops, pumping out the water does not thereby restore the crops to health, but it may protect outbreak of health problems like malaria.

For such problem relationships, other types of objectives must be formulated to represent solutions. Recognize that some problems in the problem tree may actually be *symptoms* of other deeper problems. Add new objectives if these appear relevant. Determine the cause-and –effect relationships among the objectives and draw the objective tree. The level of detail required is a judgment that must be made by those developing the problem tree. In general it is the amount of detail that permits a clear understanding of the problem and its environment. If the analysis is too superficial, the solution chosen could itself cause a whole series of additional problems because the cause-and-effect relationships of the first analysis were not well-defined.

**1.3.4. Alternative Tree Analysis or Project Selection**

An alternative tree analysis is a technique for identifying alternative solutions or course of action that can be used to achieve the same or alternative objectives and the display of this information in a simple format.

1. ***Procedure***

Examine the objective tree to determine which objectives are perhaps unrealistic due to resource limitations. Using feasibility analysis tools, examine each branch of the objective tree to determine which alternatives might represent the optimal project strategy in terms of probability of success, cost/benefit and most effective approach.

Sometimes the branches of an objective tree are already a single project-sized solution sufficient for attaining the next higher objective. A strengths, weaknesses, opportunities and threats (SWOT) analysis can be undertaken to establish the priority options of projects to be subjected to further detailed quantitative analysis for implementation.

After the problem analysis follows the analysis of objectives. This analysis includes:

• the translation of the negative situations in the problem tree into a realized positive state (the objectives) for example, 'low rice production' is converted into 'improved rice production’;

• Verification of the hierarchy of objectives;

• Visualization of means-end relationships in a diagram.

Also in this step it is of importance that all stakeholders are involved. While transforming problems into objectives and verifying the hierarchy, discussion and feedback on the objectives is done. This helps building consensus amongst the stakeholders. It might also be necessary to reformulate some of the problems.

Next, often the objective tree shows many objectives that cannot all be reached at once.

Therefore, choices will have to be made. Certain objectives seem unrealistic, too ambitious or not feasible within the context of a possible intervention, so that other solutions need to be generated for the problem concerned. However at this stage of the planning these choices are not yet made. Still all possible ways (objectives) to achieve the desired future situation are considered.

**3 Analysis of strategy (see further ‘Strategic Options’ tool)**

After having formulated the desired future situation the selection of possible interventions starts. To analyses the strategies for implementation the following steps are taken:

• Identification of the different possible groups of objectives contributing to a higher objective (clustering);

• Choice of a strategy for the intervention, choosing the scope of the project (scoping).

In the process of clustering and scoping it is important to realize that the aim is to contribute the maximum possible to an overall objective, keeping in mind the priorities of the beneficiaries, and the limitations and possibilities of the implementing organization. In the diagram of objectives, the different objectives sharing the same nature can be considered to be clusters. The clustering should be based on common sense and should be of practical value in the planning stage. The clusters should be neither too broadly nor too narrowly defined. It concerns the identification and selection of potential alternative strategies towards realizing all or some of the objectives. Clusters are made based on similarity of possible future activities, region or required expertise.

In the demonstration case these clusters are irrigation system, agricultural inputs, soil fertility and immigration. For each of these clusters a different type of expertise is needed. Out of the clusters, one (and often more) will be chosen and used as the strategy to achieve a future desired situation: the aims of the intervention. This is called scoping, or choosing a strategy. Based on a number of criteria, the most relevant and feasible strategy is selected. Unrealistic objectives should be excluded and objectives that certainly should be included should be prioritized.

The criteria have to be chosen and agreed upon by all stakeholders.

Examples of possible criteria:

|  |
| --- |
| - Priorities of beneficiaries - donor policy  - Expertise and experience of implementing organization  - fit with mandate of government authorities, sectorial policies  - Duration of implementation - contributions of different stakeholders  - Urgency - available human resources, institutions  - Contribution to overall objectives - available budget  - Inter-linkages between clusters - shift in power relations  - positive/negative side-effects - gender and social diversity aspects  - Sustainability - likelihood of success  - fit with mandate of implementing organization. |

* 1. **Project Planning Matrix or Logical Framework Analysis**

***1.4.1 Logical Framework***

**What Is Logical Framework Analysis (LFA)?**

A log frame (also known as a Project Framework) is a tool for planning and managing development projects. It looks like a table (or framework) and aims to present information about the key components of a project in a clear, concise, logical and systematic way. The log frame model was developed in the United States and has since been adopted and adapted for use by many other donors, including the Department for International Development (DFID).

A log frame summarizes, in a standard format:

• What the project is going to achieve?

• What activities will be carried out to achieve its outputs and purpose?

• What resources (inputs) are required?

• What are the potential problems which could affect the success of the project?

• How the progress and ultimate success of the project will be measured and verified?

Why use **LFA?**

**Because, most donors prefer it ?**

LFA can be a useful tool, both in the planning, monitoring and evaluation management of development projects. It is not the only planning tool, and should not be considered an end in itself, **but** **using it encourages the discipline of clear and** **specific thinking** about what the project aims to do and how, and highlighting those aspects upon which success depends.

LFA also provides a **handy summary to inform project staff, donors, beneficiaries and other stakeholders**, which can be referred tothroughout the lifecycle of the project. LFA should not be set in concrete. As the projectcircumstances change it will probably need to reflect these changes but everyone involved willhave to be kept informed.

**What is so intimidating about using LFA?**

Perhaps because we are very conscious of the complexity of development projects, we find it hard to believe that they can be reduced to one or two sides of A4. Remember that the log frame isn't intended to show every detail of the project, nor to limit the scope of the project. It is simply a **convenient,** logical **summary of the key factors of the project.**

A logical framework is a four by four matrix, which enables the decision-makers to identify project purposes and goals, and plan for project outputs and inputs. The log frame is useful in planning a project and to provide measures of evaluating the project. Important assumptions about the casual linkages in the project are stated on the log frame, and these are useful when it comes to project implementation. It is important to understand the meaning of various terms which are used in a log frame.

**1.4.2 Concepts used in Logical Framework**

1. The **goal** of a project is a value judgment which satisfies one or more human needs. A program or sector goal is the broader objective to which a project contributes.
2. The **purpose or immediate objectives** of a project its primary intention or aim; it is the reason why a project is designed
3. The **inputs** are defined as financial, human and material resources available to implement the project as planned
4. The **outputs** are the services or products that a project delivers to a target population to produce the expected impacts.
5. The **sector** is the largest system of which a project a part e.g., building a dam is a project in the agricultural sector, if the main purpose is irrigation or in the energy sector if the main purpose is the generation of hydro-electric power.
6. **Objectively verifiable indicators** (OVI) demonstrate that certain desired results have been accomplished.
7. **Means of verification** are the specific mechanisms by which quantitative indicators of the accomplishments of a project may be observed.
8. The **Logic**: The decision-maker uses two types of logic to arrive at explicit statements which serve to help in planning or in evaluating a project in progress. A vertical and horizontal logic.
9. A **vertical logic** clarifies why a project is being undertaken. It specifies the program or sector goal, and project purposes, outputs and inputs.
10. A **horizontal logic** identifies what is to be produced and the evidence that will signal success. It lists objectively verifiable indicators, means of verification and important assumptions.

**Table: 1. Proposed project Analysis Log frame Matrix**

|  |  |  |  |
| --- | --- | --- | --- |
| **Narrative Summary** | **Verifiable Indicators (OVI)** | **Means Of Verification (MOV)** | **Important Assumptions** |
| 1. Goal  Improvement of sanitary conditions and elimination of total disease in Kasese Schools, Kyabarungira Sub County | Provision of one stance latrine for only 25 pupils | Progress report by;  School authorities  Parent Association  Kyabarungira sub county  District Council | Availability of funds  Available space  Local councils  Education policy compliance |
| 2. Purpose  Construction of 4 latrines at one of the schools in Kyabarungira sub county | Dimensions of 4 ft wide, 20 ft long and 30 ft deep with five stances with a lockable door and window | Progress and status report | Funds  Building skills  Local politics  External support |
| * 1. Output   Completion of 7 latrines | 4 latrines with five stances | Completion report | Respect of contractual terms and timing |
| * 1. Activities * Hiring builders * Procurement of materials * Training local staff | Funds available  Space allocated  Materials purchased | Completion report | Timely follow-up’  School authorities  County council |
| * 1. Financing * School * Contributions * Council * District * Others | Funds available | Progress report | Willingness to support the project |
| 6. Commissioning | 4 modern pit latrines | Completion report | Official commissioning |

**1.5 Risk Analysis and Management**

* **Definition of Risk analysis**

***Risk*** can be defined as a feature of an outcome; risk describes the level of uncertainty for obtaining a predefined outcome. Risk management aims to expose the risks and keep the probability of the realization of the risks on an acceptable level in a cost-effective way. It is evident that availability of relevant information and communication between the partners are the key factors for reducing uncertainty. Although the risks are constantly changing during the execution of the project, a general pattern for dealing with risks remains the same:

**Risk identification → Risk analysis → Identification and execution of responses**

The project plan should identify the major possible risks, describe how these risks will be managed and who the “owners” of the risks are (the “owner” should monitor the risk and propose actions if necessary).

In many cases risk management is considered a component of quality management. For example, a quality management plan can describe actions that will be undertaken if the following risks are realized:

• Some resources planned for the project needs will not be available,

• Some key persons leave the project,

• The assumptions and solutions planned will not be adequate and effective enough,

• Problems caused by external institutions emerge (for example, in procurement delays or *force majeure*).

For each risk, one should try to estimate the harm that can occur and propose possible solutions. For example, the cheapest solutions can increase the risks: a 5% cheaper service from an unreliable institution can end up with a solution of non-acceptable quality, time overrun or even fraud.

For the determination of risks the following techniques can be used:

• analysis of documents (including web-based),

• brainstorming,

• the Delphi technique (answers to questions dealing with risks will be given to experts who determine the possible risks),

• interviewing experts,

• SWOT analysis, and diagrammatic analysis (analysis of *cause-and-effect* diagrams).

The following example is taken from an EU 6th Framework project proposal.

**Example. 3.4. Risks and contingency plan**

This project addresses innovative pedagogical and technological concepts and involves the trial collaborative activities of a large number of students from several universities. It is therefore necessary that during the whole duration of the project, risks are constantly assessed and evaluated, and that the project prepares for cover-up actions if required. The project management and assessment approaches proposed for iCamp provide mechanisms to identify and resolve potential risks. The methodology to be followed for risk management consists of ***four*** steps:

• *Risk identification* - areas of potential risk are identified and classified.

• *Risk quantification* - the probability of events is determined and the consequences associated with their occurrence are examined.

• *Risk response* - methods are produced to reduce or control the risk, e.g. switch to alternative technologies.

• *Risk control and report* - lessons learnt are documented.

Risks with medium or high probability and severe impact will be handled with particular caution during the project. At this point, it is foreseen that the project will safely realize its expected results. This is also supported by the preliminary risk analysis. Normal project risks will be managed via “good-practice” project management. A detailed project plan with its milestones and critical paths will be continuously monitored. The close supervision and tight control both at the work package (WP) level and project level shall ensure that results are available in time and with adequate quality. No special problems are therefore expected with regard to the following risks:

• ***Partner problems*** (e.g. a partner is under-performing) or expertise risks (e.g. a key person with a specific expertise is leaving the project) - in case critical competencies are lost or not available, it is assumed that the project and WP management processes will identify the problem at an early stage. As a first measure, the project manager will seek comparable competencies amongst the project partners. If necessary, budgets will be shifted from the “defaulting” partner to the partner that has the competencies.

• ***Project execution*** risks (e.g. key milestones or critical deliverables are delayed) – project execution will be closely monitored both at the WP and project level. The internal and external peer review procedure will assure that deliverables are produced in time and with adequate quality.

• ***Technological risks*** (e.g. key technologies or components are not available for integration at the expected time) – the creation of a learning environment will be based on existing open source technologies. It is extremely important that these technologies are integrated in time for the execution of the planned trials. By the management processes, e.g. reporting and peer reviews, it is very unlikely that the unavailability of key components will come as a surprise. The project manager is responsible for analyzing the problem and finding and enforcing a solution, all of these in consultation with the work package leader and the task leader. If the issues cannot be resolved by general management measures, possible actions are: putting the right people in place or adding resources for critical tasks by shifting from less critical tasks. Reducing the effort and outcome of non-critical tasks is only the last resort, and it is not expected to be the case in reality, but rather an exception that we do not expect.

• ***Trials*** (e.g. student groups are not available at the requested time) – several universities with a large number of students will collaborate in the project trials. In order to avoid the risk that student groups and mentors from different countries are not available at the same time, that numbers of students are not as high as initially planned, or that the trials are not integrated in regular studies at the universities, a detailed plan has been prepared with involved institutions long in advance before the trials take place.

• ***Loss of focus*** of vision or communication problems – the project will keep its focus on innovative ideas, both technological and pedagogical. Common project workspace, an internal e-mail list, regular audio and video conferences, as well as physical meetings shall ensure good communication within the project.

### Risk analysis and Risk assessment Project risks

There are expected to be project risks mainly due to lack of funds, lack of appropriate building skills, bureaucratic corruption, and interferences from local politicians and there may be lack of space. The decision to proceed with a particular course of action is not made purely on the outcome of the options appraisal scoring process. A high scoring option may also be the one with the highest risks and the greatest uncertainties. During the initial project appraisal process, the options appraisal outcomes can help identify the key reputational, financial and operational risks to the project. Begin by looking at the weighted criteria: the highest weights represent the most critical areas of the project. If these criteria are not fully delivered, then the effectiveness of the whole project is likely to be affected.

For these criteria, ask:

• What could go wrong?

• How serious would it be if it did? (Impact)

• How likely is it that it will go wrong? (Probability)

**Assumptions**

Any underlying assumptions that have been made to get this far should be clearly understood and aired at this stage. Examples might be:

• it is assumed that enough existing staff time will be made available

• it is assumed that there will be no significant changes to legislative requirements within the timescale of the project.

**Risk management**

At the project appraisal stage, there should be an indication of the risks inherent in the project and an indication of how those risks might be managed. Risk management action plans allow us to:

• allocate resources for risk management

• allocate responsibilities for the management of risks

• determine responses to risks.

**What is project risk management?**

Project risk management is the flexible application of a systematic process to improve the likelihood of a project achieving its pre-determined objectives. It is crucial to project performance. The objectives of project risk management are to inform decision-making during project selection and definition, and to improve project performance during design and delivery so that completed projects lead to enhanced organizational performance.

**Why is risk management important?**

Risk is not a bad thing! A certain amount of risk taking is inevitable if we want to achieve our aims and objectives. But the key to encouraging innovation and improving performance lies in the effective management of risk, which can be either negative (a threat) or positive (an opportunity). If you know what the potential threats are, then you can plan to avoid or at least manage them, and knowing the opportunities allows you to plan to take advantage of them. The absence of risk management leads to reactive, fire-fighting activity and potentially, project failure.

5. Risk Identification

5.1 Risk categories

Risks can be grouped into Strategic and Operational Risks: the following list is not exhaustive but should give a good overview of the range of categories that can be considered within a risk analysis.

**Strategic Risk Categories:**

• Strategic Fit

• Relationships

**• External Political**

. Trade regulations and tariffs

. Social welfare policies

. EU bodies (inc. funding opportunities)

• Organizational Impact / Reputation

**• Economic Case**

Interest rates

Money supply

Inflation

Energy cost / Green agenda

International issues

**Operational Risk Categories:**

**• Technical and Operations**

Technological change

Innovation (opportunity)

Research, Enterprise and 3rd Stream activities

Estates and infrastructure

• Internal Political

Stakeholder interest

Student relationships

Unions

• Financial viability

• Organizational management and human resources

• Legal

* Legislation
* Environment protection
* Employment law

• Procurement

• Commercial

• Environmental

* Waste
* Green credentials of suppliers
* Activist activities

5.2 Critical Success Factors (CSFs)

These are the key areas that, for the University, carry a high degree of importance in helping to assure the success of the organisation. They are

a. Student experience

b. Securing and diversifying income

c. Employee engagement

d. Capital programmes

e. Brand, image and reputation

5.3 How to identify Risk

The list above provides a useful framework for risk identification, but your task, as project manager,

is to identify specific risks. However this is not, indeed must not be, a single person activity.

The best mechanism for identifying risk is a workshop involving a range of stakeholders including those with management and operational interests, as well as customers.

When identifying the risk it is important to be specific and relate the risk to the project directly. Also remember that risks can be threats or opportunities, so you should be clear about which it is, for example: Lack of staff skills in new technology means that:

Threat: project implementation could be delayed

Opportunity: training to provide new skills enhances morale.

**Initial project risk assessment (Project Brief)**

At the project brief stage it is usually impossible to carry a detailed risk assessment. However you should use the MMU Assessment matrix at this stage, and for that a Low-Medium-High risk assessment is sufficient. Use the checklist in section 5.1 and determine the overall risk using the following criteria:

• Low risk: although there is a level of riskiness in doing this project, you are reasonably confident it can be delivered on time, within budget and to the desired level of quality.

• Medium risk: you are confident that the project can be delivered to the agreed level of quality, but there is a distinct possibility the project could over-run in terms of time and/or cost.

• High risk: there is a distinct possibility that the project could fail to delivered the desired quality outcomes, e.g. because the amount of culture change required is very significant.

• Note that quality includes the area of adoption – so just delivering a successful product isn’t good enough if it isn’t used properly. You should consider this aspect as part of the quality dimension, i.e. how easy will it be for the product to be used effectively.

* **Determining responses to risks**

There are four categories of response to risk:

|  |
| --- |
|  |

**Transfer:** Transfer of the risk to a third party

**Tolerate**: There may be a limited ability to do anything about some risks, or the cost of minimizing them may be disproportionate to the benefit of doing so. In these cases it may be decided to accept the risk.

|  |
| --- |
|  |

**Treat**: Most risks should be covered (treated). Treatment does not necessarily obviate the risk, but should at least contain it or keep it at a more acceptable level. Internal controls should be exercised when treating risks (see below).

|  |
| --- |
|  |

**Terminate**: The risk might be terminated by eliminating the possibility of the risk occurring such as by using alternative resources, technologies or ways of working. Where risks are deemed to be unmanageable and severe, and cannot be tolerated, the decision to terminate the project remains open.

**Internal controls**

It is essential that any controls are proportional to the risk they are related to. Controls should give reasonable assurance of confining likely loss within a range the organization is able to tolerate. Every control action has an associated cost and so has to offer value for money in relation to the risk it is controlling.

There are four main categories of internal controls for risk:

**Preventative:** controls limit the possibility of a risk being fully realized. Examples are:

• obtaining sufficient specialist advice in advance

• recruiting sufficient financial experience

• separating duties to prevent fraud. The greater the risk, the more important prevention becomes.

**Directive:** These controls are vital when a project has to conform to regulations. Examples are:

• Compliance with legislation

• No payments in advance of need

• Only trained staff can participate

• wearing of protective clothing.

**Detective:** If loss or damage has occurred, there must be controls or systems in place ready to investigate what happened and to detect the lessons to be learned. Examples are:

• Reviews of management accounts

• undertaking aftercare/monitoring visits

• Stock checks.

**Corrective:** These controls are the mechanisms by which, once loss or damage has occurred, something can be recovered. Examples are:

• Penalty clauses in contracts

• Controls to recover overpayments

• Insurance.

**1.6 Pre-Feasibility Studies**

The project idea must be elaborated in a more detailed study. However, formulation of a feasibility that enables a definite decision to be made on the project is costly and time-consuming task. Therefore, before assigning larger funds for such a study, a further assessment of the project idea might be made in a pre-feasibility study, the principal objectives of which are to determine whether:

* All possible project alternatives have been examined;
* The project concept justifies a detailed analysis by a feasibility study;
* Any aspects of the project are critical to its feasibility and necessitate in-depth investigation through functional or support studies such as market surveys, laboratory tests or pilot tests;
* The project idea, on the basis of the available information, should be considered either non-viable or attractive enough for a particular investor or investor groups;
* The environmental situation at the planned site and the potential impact of the projected production process are in line with national standards.

A pre-feasibility study should be viewed as an intermediate stage between a project opportunity study and detailed study, the difference being in the degree of detail of the information obtained and the intensity with which project alternatives are discussed. The structure of a pre-feasibility study should be the same as that of a detailed feasibility study.

A detailed review of available alternatives must take place at the stage of the pre-feasibility study, since it would be too costly and time-consuming to have this done at the feasibility study stage. In particular, the review should cover the various alternatives identified in the following main fields (components) of the study:

* Project or corporate strategies and scope of project
* Market and marketing concept
* Raw materials and supplies
* Location, site and environment
* Engineering and technology
* Organization and overhead costs
* Human resources in particular managerial (entrepreneurial) staff, labor costs and training requirements and costs
* Project implementation schedule and budgeting

The financial and economic impact of each of the above-mentioned factors should be assessed. Occasionally a well prepared and comprehensive opportunity study may justify by passing the pre-feasibility study stage. Such cases should be confined to investors who have complete knowledge of the project conditions. A pre-feasibility study is however, conducted of the economics of the project are doubtful. Short cuts may be used to determine minor components of investment and production costs but not to determine major costs items. The latter must be computed on the basis of reliable primary sources.

**1.6 Feasibility Study**

A feasibility study is part of the process of project identification, preparation and selection. This process involves the appraising of projects or groups of projects and then choosing to implement some of them. This process is very important for projects that are implemented by governments and big organizations. In developing countries, it is not uncommon to find a situation where only a few projects are sufficiently prepared and carefully selected. This happens because of several reasons. Some of the reasons could be: (1) there aren’t enough skilled people to perform this task; (2) there is some unwillingness to spend money on this process. It is believed that this process is wasteful if many projects are appraised but eventually abandoned. With a lot of care exercised, especially at the feasibility stage, this abandonment should seldom happen.

Proper feasibility studies of projects imply choice of investment projects. Thus, proper choice of projects is crucial to the long run economic development of a country. If a firm implements projects, then proper choice is also crucial to the long run survival of the firm. It is true that many projects are implemented without any extensive feasibility studies. This happens because of several reasons, among them being the use of non-numeric project selection models. However, the application of these models to project selection may be limited to projects, which do not involve huge investment resources. For those projects which involve huge resources especially those involving governments and other institutions such as that of the World Bank and IMF, feasibility studies must be usually carried out before a project is selected for implementation.

A feasibility study should provide all data necessary for an investment decision. The commercial, technical, financial, economic and environmental prerequisites for an investment project should therefore be defined and critically examined on the basis of alternative solutions already reviewed in the pre-feasibility study. The result of these efforts is then a project whose background conditions and aims have been clearly defined in terms of its central objective and possible marketing strategies, the possible market shares that can be achieved, the corresponding production capacities, the plant location, existing raw materials, appropriate technology and mechanical equipment and if required an environmental impact assessment. The financial part of the study covers the scope of the investment, including the net working capital the production and marketing costs sales revenues and the return on capital invested. Final estimates on investment and production costs and the subsequent calculations of financial and economic profitability are only meaningful if the scope of the project is defined unequivocally in order not to omit any essential part and its related cost. The scope should be defined in drawings and schedules that should then serve as a supporting structure during further project work.

The term “feasibility study” is often misunderstood and deliberately misused by suppliers of equipment or technology. Frequently an outline of a project primarily oriented to the supply of equipment or the choice of a particular technology is called feasibility study, although it is rather a technical or support study not covering all feasibility aspects as required for an unbiased project appraisal. Sometimes production or sales estimates are based on conditions observed in a developed country and bear little relation to those developing countries. As these studies are unrelated or ill-adapted to the local business environment they can be misleading and result in the misallocation of resources as has often occurred in developing countries. A feasibility study must be related to available production factors and local market and production conditions and this requires an analysis that has to be translated into costs, income and net gains.

A feasibility study should be carried out only if the necessary financing facilities, as determined by the studies, can be identified with a fair degree of accuracy. There would be little sense in a feasibility study without the reliable assurance that in the event of positive study findings, funds could be made available. For that reason, possible project financing must be considered as early as the feasibility study stage, because financing conditions have a direct effect on total costs and thus on the financial feasibility of the project. During the process of project appraisal a feasibility study may be undertaken to establish the justification of the identified project in all of its relevant dimensions, including its technical design, economic and financial viability, environmental compliance and social acceptability; as well as its conformity with the national development objectives and priorities and the relevant policy, legal and regulatory framework. The aim of a feasibility study is to initially identify the following aspects:

1. Development objectives against which the project proposed conforms
2. Policy framework and detailed project objectives
3. Technical soundness of the project
4. Administrative feasibility of the project
5. The economic and financial viability of the project proposal
6. The status of demand for the project beneficiaries
7. Considerations of customs and traditions of project benefactors, issues of compatibility
8. Other important policy and cross cutting issues (gender, environment, HIV/AIDS)

The results of a feasibility study influences decisions to commit or not commit scarce resources to a given project proposal.

**1.4.8 Preparation of Feasibility Report**

*Actual Feasibility Studies*

A feasibility report of a project provides information which will be required by the decision-makers for project appraisal. Project appraisal usually builds on the project plan, but it may also involve new information if data or assumptions in the feasibility study are questionable. The appraisal done is meant to show whether or not the project plan as contained in the feasibility study, is sound and it is worth investing in. If has to be useful for project appraisal a feasibility report should contain the following:

1. Market Analysis
2. Technical Analysis
3. Organizational analysis
4. Financial analysis
5. Economic analysis
6. Social analysis
7. Environmental analysis and cross cutting issues…etc
8. **Market Analysis**

Market analysis indicates the demand potential of the output of the project. Such potential is determined by examining a number of factors such as the demographic statistics of the areas or regions where the outputs will be sold, the income levels of the people in these regions and what is contained in the development plans of these regions. It is important to establish whether or not there are competitors who are already producing similar outputs and how much share of the market they command. The gap in the market which competitors are unable to satisfy will form the basis of establishing the demanded potential.

Many projects, especially agricultural projects, were started in many African countries in the 1960s and 1970s with a focus on simply producing crops without paying attention to the markets for these crops. This discouraged production and many of the projects became unsustainable. For projects to be sustainable market analysis must be carried out.

1. **Technical Analysis**

Technical analysis is important for projects, especially those which are classified as industrial. The technical analysis will usually be concerned with such issues as:

* + 1. Capacity of operation
    2. Quality of machinery and equipment
    3. Plant location and layout (arrangement)
    4. Maintenance provisions; and
    5. Appropriateness of technology

Technology is examined at two levels. First, the technology used must be suitable for the realization of the specific objectives of a given project. Very often, machinery is imported from developed countries to poor developing countries only to be found obsolete and inefficient. High costs of production and maintenance are incurred when this happens. Such mistakes are made where projects have failed to involve technically qualified people, right from the time of project initiation. Second, technology must be examined for suitably according to the socio-economic environment. The term which is frequently used is, “appropriate”. Technology which is imported from developed countries may not necessarily be appropriate in the developing country environment. For example, due to the need to provide employment to people, government sponsored projects would usually prefer projects with technology which is labor intensive as opposed to those which encourage less human labor.

1. Technological analysis is done by generation technological alternatives which must then be analyzed with respect to such factors as size of plant, process and location. All the alternatives which are being analyzed must be examined for any negative effects.

Technical analyses of a project are aimed at ensuring the following:

1. To confirm the source of the project proposal, nature of the studies – including feasibility studies undertaken before the proposal, and the nature of decisions taken by all relevant authorities involved
2. That the problem or the need to be resolved by the project has been clearly stated
3. That the project has been clearly spelled out with the correct technical design details (such as size, location, timing, and technology)
4. That the required materials have been correctly determined and their source identified
5. That the costs of the project have been clearly established, expected product prices projected, and payment modalities and schedules agreed.

All the alternatives which are found to have negative effects should be left out and only those with no or little negative effects should be considered for further analysis and recommendations.

1. **Organizational Analysis**

Technical analysis of a project must be followed by organizational analysis. When a technological alternative is found viable, then the issue of organization in relation to this alternative must be considered. Organizational analysis involves such issues as transportation of machinery, construction of buildings, maintenance and commissioning. Terms and conditions which are offered by the constructors must be carefully weighted to make sure they are in line with the project’s objectives. Organizational analysis also involves issues of operation. Operation requires that training of manpower to operate the machines and design of production systems be considered. Organizational analysis must aim at making it possible for the technological alternative to be in line with the proposed marketing and financial plans in addition to meeting the societal criteria.

1. **Financial Analysis and /** **Economic Analysis**

This is one of the important considerations in the feasibility of a project. The financial returns of a project must be determined and compared to the costs of the project. There must be clear evidence that the project will have a net gain if it has to be feasible. The initial project costs as well as the operating costs should also be carefully considered. Usually, some projects with lower initial and operating costs might produce greater benefits. Economic analysis is basically concerned with the following:

1. How to identify effects of project on the society;
2. Qualification of effects of the proposed project; and
3. Pricing of costs and benefits to reflect their values to society.

For financial analysis of projects, market prices are used. However, in many developing countries, there is a big gap between market prices and the social values of all goods and services. This divergence between social and market prices makes it necessary to evaluate projects from the point of view of the society as opposed, for example, to the entrepreneur’s point of view. In order to take into account this divergence, financial prices are adjusted to reflect the true value to society of the project’s inputs and outputs. Shadow prices or the opportunity cost of factors are used instead of the prevailing financial prices. Recent studies indicate that shadow rates such as the wage rate for unskilled labor often exceed the opportunity cost of labor; the increase in incomes may generate a cost to society in excess of the opportunity cost.

The situation described above occurs if current consumption is less valuable to society than current savings, when savings and investment are sub-optimal. In a situation of surplus labor, as in many developing countries, careful judgment on the use of shadow wage rates of unskilled workers may be required. When intangible costs or benefits enter into project investment considerations, they raise problems of valuation. Intangible factors comprise a whole range of considerations such as income distribution, jobs created, regional development, national integration and security and environmental consideration. Many development projects are usually undertaken to secure intangible benefits. Examples of such projects are education projects, domestic water projects and health projects. When considering projects with intangible cost and benefits, the least that an analysis should indicate is the number of people who will use the project. Such simple quantification is important for the process of project appraisal.

One method of dealing with a project which has wholly intangible benefits is the one referred to as the least-cost combination or cost effectiveness. In a recent debate on the value public universities to the country, the cost effectiveness method was used by assuming that if all the public universities were closed, then the present numbers of students will have to join private local universities or universities abroad. These two alternatives were costed and compared with the current cost of all public universities. It was shown that indeed public universities are a cost-effective approach to provision of university education in the country.

1. **Social Analysis**

It happens that project analysis gives more emphasis to technical and economic aspects but social aspects of the project are inadequately analyzed. It is the general feeling in most developing countries, that the more the technical and complex the presentation, the more use of shadow prices, trade off, engineering co-efficient, the better the chances of finding a bilateral or multilateral donor etc…are sometimes unrelated to the basic reality of the project and simply misled the decision-makers. Some of the mistakes which lead to the exclusion of social realities include the fact that foreign donors and international financing agencies turn out to be more committed to the project than the potential local beneficiaries. In this regard, participation should start at an early stage and active participation of a wide range of local stakeholders in the preparation and design of the project is essential. This is also a way of improving the feasibility of the project.

A classification which may be used to identify stakeholders in a given project as follows:

* + - * Client groups
      * User groups
      * Agents
      * Beneficiaries; and
      * Victims.

Such a classification is useful in identifying stakeholders which may provide important information for feasibility analysis. It should be realized that however, carefully a project has been analyzed, especially on aspects of the socio-economic factors; the reality in many developing countries may not reflect the analysis after project implementation. Many times, projects which are designed to benefit the unemployed and the poor in rural areas attract such people as the village shopkeeper, the bus owner, the local chief and other middle men so that their combined exploitation of the project negate or reduce the benefits to the targeted groups. In the end, ‘good’ project identification, preparation, and analysis will only be possible if wider issues of power structures, redistribution of income and transformation of institutions are first addressed. The validity of the planners’ assumptions about the social conditions are tested through social analysis. Where necessary, adjustments should be made so that the project goals are expressed in terms that have more meaning for both the project population and the implementing agencies. Social analysis focuses on four areas indicated below;

1. The social-cultural and demographic characteristics of the project population – its size and social structure, including ethnic, tribal and class composition
2. How the project population has organized itself to carry out productive activities, including the structure of households and families, availability of labor, ownership of land, and access to and control of resources
3. The project’s cultural acceptability; in other words, its capacity both for adapting to and for bringing about desirable changes in people’s behavior and in how they perceive their needs
4. The strategy necessary to elicit commitment from the project population and to ensure their sustained participation from design through to successful implementation, operation and maintenance
5. **Environmental Analysis.**

Projects (especially the industrial projects) which are likely to emit pollutants to the environment are increasingly being required to show how pollutants with effects on human, animal and plant life can be minimized or eliminated. Developed countries have stringent criteria which projects must meet with respect to the environmental issue (be environmentally sound). Unfortunately in the past, many projects in developing countries were started without much consideration to the environment. A lot of research work on environmental impact assessment has been carried out in many countries and findings and recommendations should be carefully considered in project planning, implementation and management. The findings have established that the environment may be affected physically as in excavations, or through pollution of rivers and lakes and also through the emission into the air. It is recognized that projects are important vehicles of development, however, people area at the center of this development. Therefore, people, animal and plant life must not be affected in the name of development. When the various analyses have been carried out, the results must be put together in the form of a report. It is important that the above components of a feasibility report are organized logically before being presented to financial institutions for funding or to donors for assistance. The sections of a feasibility report are summarized as follows:

1. **General Information**
   * Analysis of industry or sector to which the project belongs
   * The gap existing between supply and demand in the industry or sector; and
   * Past performance of proposal owners
2. **Preliminary analysis of alternatives**

* Other alternatives which were considered besides the proposed project should be stated;
* All the relevant options analysis should be explained; and
* The rationale for the project i.e., how it addresses the existing gap should be given.

1. **Project description**

* Location of the project
* Technology to be used
* Machinery and equipment needed; and requirements, utilities, labor, products.

1. **Marketing plan**

* Demand of products
* Prices and price sensitivity
* Distribution arrangements; and
* Warehousing and storage arrangements

1. **Capital requirements**

* Preliminary expenditure;
* Land acquisition and development;
* Plant and equipment;
* Construction; and
* Engineering and project management.

1. **Operating requirements and costs**:

* Raw materials
* Fuel
* Utilities
* Labor
* Repair and maintenance costs;
* Selling expenses; and
* Other expenses depending on the project.

1. **Financial analysis**

* This section provides information on costs of production and working results and cash flows during the economic life of the project; and
* Financial performance may be done using any of the following tools: pay back period, Net Present Value, Internal rate of return on investment and return on capital employed.

1. **Economic and social analysis**

* Impacts on income distribution
* Development of ancillaries
* Assured prices to farmers and supplies of inputs.

1. **Environmental impact assessment**

* Impact or damage on the environment
* Measures required to prevent damage
* Costs involved in restoration of acceptable measures and
* Mechanisms for monitoring the efficiency and effectiveness of the measures.

Depending on the nature of the project, it is important that the project is seen to comply with the various environmental requirements as administered by the National Environmental Management Authority (NEMA). Specifically, the project should comply with the provisions of the National Environment Statute (1995) and the Environmental Impact Assessment (1998). Environmental aspects that projects would have to address include; Public health and occupational safety and Control of air, water and land pollution; Management of renewable natural resources (plants and animals) and Efficient use of natural resources through multiple use, recycling and erosion control and Conservation of unique habits (forests, game reserves) for rare species and cultural preservation.

**CHAPTER- FOUR: PROJECT PROPOSAL WRITING AND IMPLEMENTATION**

**Introduction**

Without direct project funding, most non-governmental organizations (NGOs) would not be able to accomplish their goals. Writing clear, thorough and targeted project proposals is therefore essential to an NGO’s success. Mastering the art of proposal writing requires a unified approach to project management.

**4.1. Definition of Project Proposal**

A **project proposal** is a detailed description of a series of activities aimed at solving a certain problem. The proposal should contain a detailed explanation of the:

• Justification of the project;

• Activities and implementation timeline;

• Methodology; and

• Human, material and financial resources required.

The project proposal should be a detailed and directed manifestation of the project design. It is a means of presenting the project to the outside world in a format that is immediately recognized and accepted. The training sessions on project proposal writing aim to create an understanding of:

• The role of the project proposal and the activities related to each stage;

• How to deal with projects and project proposals from an organizational perspective;

• How project proposals fit into project management; and

• How to structure a good project proposal.

**4.2. Guideline to write and accomplish project proposal**

The project proposal writing guidelines enables the user to:

• improve participants’ skills in developing quality project proposals;

• show them how to manage projects within an organization; and

• help them to understand a project’s value as a tool to achieve and further the organization’s mission.

The challenges that come out of these problem areas can be classified into three groups:

**1) Enhancing skills and organizational procedures**

• Learning proposal-writing techniques, as well as developing skills in designing and writing successful project proposals, is the objective of most participants

• Establishing systems and standards related to developing projects within the NGOs is also a key objective.

**2) Understanding the role of project proposals in project management**

• The project proposal is a **tool** — not a goal. It should be followed as closely as possible, and deviations should occur only when necessary.

• Proposal writing is only one of the phases of project management. It is one of the numerous actions that form a logical sequence of events usually referred to as the **project cycle**.

**3) Conducting preparatory work prior to proposal writing**

A quality project proposal is the final product of a participatory process that involves considerable study; discussion and learning from past experiences.

Skills to be developed

The training focuses on developing specific skills related to designing and completing good project proposals.

This guide offers instruction in:

• conducting preparatory work;

• developing comprehensive and viable project plans by setting realistic goals and determining the resources needed; completing the project proposal package in order to provide funders with all necessary information;

• preparing and following up on project budgets; and

• writing budget reports.

**Main Terms of the Proposal Writing Process**

■ **Indicators** — those elements of the project plan that translate the project’s purpose and results into measurable units (quantity or quality) and thus provide the basis for measuring the impact

■ **Input** — the investment of resources (human, material or financial) invested in the project

■ **Output** — the results achieved

■ **Activity plan** — a description of the flow, timeline and responsibilities for the project’s activities

■ **Resource plan** — a description of how the resources will be used in relation to the activities

■ **Gantt chart** — a specific model for activity plans that illustrates how the activities interconnect

■ **Income** — the funds secured for the project’s implementation

**Contents.**

It covers the following topic areas:

• What is and what is not a project?

• What is a project design?

• How are project elements formulated?

• Which methods are best for planning a project?

• What is a project proposal?

• How is a project proposal written? (suggested format covering all the aspects of the project proposal) and it is a good idea for participants to familiarize

**4.3. How to Write a Project Proposal**

Once the groundwork has been completed, proposal writing can commence. The key decision to be made at this stage is the structure of the project proposal (including the content and length). The structure is determined by the nature of the project as well as by the funding agency’s requirements. In the variety of formats, application forms, project design outlines, and grant application guidelines, it is possible to detect some common elements.

**Proposed Format**

* **Title page**

A title page should appear on proposals longer than three to four pages. The title page should indicate the project title, the name of the lead organisation (and potential partners, if any), the place and date of project preparation and the name of the donor agency to whom the proposal is addressed.

* **Project title**

The project title should be short, concise, and preferably refer to a certain key project result or the leading project activity. Project titles that are too long or too general fail to give the reader an effective snapshot of what is inside.

* **Contents page**

If the total project proposal is longer than 10 pages it is helpful to include a table of contents at the start or end of the document. The contents page enables readers to quickly find relevant parts of the document. It should contain the title and beginning page number of each section of the proposal.

* **Abstract**

Many readers lack the time needed to read the whole project proposal. It is therefore useful to insert a short project summary-an abstract. The abstract should include:

• the problem statement;

• the project’s objectives;

• implementing organizations;

• key project activities; and

• the total project budget.

Theoretically, the abstract should be compiled after the relevant items already exist in their long form. For a small project the abstract may not be longer than 10 lines. Bigger projects often provide abstracts as long as two pages.

* **Context**

This part of the project describes the social, economic, political and cultural background from which the project is initiated. It should contain relevant data from research carried out in the project planning phase or collected from other sources. The writer should take into consideration the need for a balance between the length of this item and the size of the overall project proposal. Large amounts of relevant data should be placed in an annex.

* **Project justification**

**Rationale** should be provided for the project. Due to its importance usually this section is divided into four or more sub-sections.

* *Problem statement*

The problem statement provides a description of the specific problem(s) the project is trying to solve, in order to “make a case” for the project. Furthermore, the project proposal should point out why a certain issue is a problem for the community or society as a whole, i.e. what negative implications affect the target group. There should also be an explanation of the needs of the target group that appear as a direct consequence of the described problem.

* *Priority needs*

The needs of the target group that have arisen as a direct negative impact of the problem should be prioritized. An explanation as to how this decision was reached (i.e. what criteria was used) must also be included. For example, if the problem is stated as “… poor infrastructure in the community” the list of **needs** associated with this problem may be:

• improved water supply in quality and quantity;

• better roads; and improved solid waste collection.

These three needs would then be given higher or lower priority according to the level of importance for the community, and a description would be given of how that decision was reached (e.g. a poll taken from the local population, costs associated with project intervention, etc.). This procedure provides credibility to the selected intervention.

* *The proposed approach (type of intervention)*

The project proposal should describe the strategy chosen for solving the problem and precisely how it will lead to improvement. One way to describe the approach related to the need previously stated as improved water supply could be: “intervention to provide basic water supply facilities in the community,” with some description of the specific features of the solution proposed.

* *The implementing organisation*

This section should describe the capabilities of your organisation by referring to its capacity and previous project record. Describe why exactly your organisation is the most appropriate to run the project, its connection to the local community, the constituency behind the organisation and what kind of expertise the organisation can provide. If other partners are involved in implementation provide some information on their capacity as well.

* **Project aims**

The first issue to deal with is naming the objectives. Several other English terms may be used including “project goal/aim,” “project purpose,” etc. Often one major “goal” is declared and then broken down into various objectives. Once this issue has been dealt with, the **hierarchy** between objectives needs to be established, as well as how many levels the hierarchy should present. In reality, an organisation should have already resolved this issue in the project planning phase.

* *Project goal (or overall objective)*

This is a general aim that should explain what the core problem is and why the project is important, i.e. what the long-term benefits to the target group are. Some examples of a project goal might be:

• raising environmental awareness;

• improving the quality of life in the community; and

• fostering social empowerment among women from deprived rural areas.

Some rules for setting a project goal are shown in the sidebar. If it is difficult to follow these rules then the project itself may have to be redefined or reconsidered.

* *Project objectives*

The objectives should address the core problem in terms of the benefits to be received by the project beneficiaries or target group as a direct result of the project as shown in Figure 6. The objectives from Figure( 5) may be defined as:

• improving the water supply in quantity X and quality Y for the population of village

Z; and

• reducing by X the rate of acute infections.

Project objectives provide a more detailed breakdown of the project goal. A project will likely have multiple objectives.

* *Project results*

Results describe the services or products to be delivered to the intended beneficiaries.

This is what the project management is promising to deliver. The results are more detailed than the objectives and the goal, and should be possible to measure through the use of objective indicators. Special consideration should therefore be paid to this area. The results should address the main causes of the problem that the target group faces. To ensure relevant results, project management should have correctly identified the group’s needs. Relating back to the previous example, the results would be written as:

• increased number of households connected to the water supply system; and

• increased number of water taps in the village.

* **Target group**

Define the target group and show how it will benefit from the project. The project should provide a detailed description of the size and characteristics of the target groups, and especially of direct project beneficiaries. The criteria for target group analysis may be ethnic composition, gender, age, etc. When these analyses are more elaborate, they may be attached as an appendix.

* **Project implementation**

The implementation plan should describe activities and resource allocation in as much detail as possible. It is exceptionally important to provide a good overview of who is going to implement the project’s activities, as well as when and where. The implementation plan may be divided into two key elements: the **activity plan** and the **resource plan**.

* *Activity plan (schedule)*

The activity plan should include specific information and explanations of each of the planned project activities. The duration of the project should be clearly stated, with considerable detail on the beginning and the end of the project. Figure 7 breaks down the various steps involved in preparing an activity plan. In general, two main formats are used to express the activity plan: a simple table and the Gantt chart. A simple table with columns, as shown in Figure 8, for activities, sub-activities, tasks, timing and responsibility, is a clear, readily understandable format for the activity plan. The Gantt Chart, a universal format for presenting activities in certain times frames, shows the dependence and sequence for each activity.

* *Resource plan*

The resource plan should provide information on the means necessary to undertake the project. Cost categories are established at this stage in order to aggregate and summarise the cost information for budgeting.

* **Budget**

In simple terms, a budget is an itemised summary of an organisation’s expected income and expenses over a specified period of time. Budgeting forms and financial planning procedures vary widely, especially in the non-profit sector. It is nevertheless essential that financial officers comply clearly and punctually with a funding organisation’s budgeting and reporting requirements.

The two main elements of any budget are income and expenditures.

**Income** (sometimes referred to as revenue) is the amount of financial assets and in kind contribution used as **sources** of support for the project. If the funding source is unique, the income side of the budget may not be shown. However, many projects have more than one source of support. The income side should show the share of contribution of each of these sources. Figure 11 shows a sample income form.

**Expenditures** (also called expenses or costs) are all the costs that are anticipated to occur during the project’s implementation. Regardless of the calculation and classification criteria used, the project costs should present a reasonable reflection of the activities presented in the project proposal. To what an expenditure form might look like. The categories presented would then be broken down into greater detail where required. A projection of the specific amounts of time needed at different phases of project implementation, represents a basis for calculating the spending dynamics at different periods of the project.

**Budget categories** classify expenditures into smaller groups according to a certain criteria. This is to monitor spending and ensure compliance with the plan.

The two main costs are direct costs and operational costs.

**Direct costs** are associated with a certain activity (e.g. organising a workshop).

**Operational costs** are related to internal activities of an organisation and are considered fixed costs in the short term (e.g. staff salaries, rent, utilities, etc).

**Units, quantity per period** and **estimated unit costs** are the three elements that are needed to calculate costs associated with any of these categories.

* **Monitoring and evaluation**

The basis for monitoring is set when the **indicators** for results are set. The project proposal should indicate:

• how and when the project management team will conduct activities to monitor the project’s progress;

• which methods will be used to monitor and evaluate; and

• who will do the evaluation.

* **Reporting**

The schedule of project progress and financial report could be set in the project proposal. Often these obligations are determined by the standard requirements of the donor agency. The project report may be compiled in different versions, with regard to the audience they are targeting.

* **Management and personnel**

A brief description should be given of the project personnel, the individual roles each one has assumed, and the communication mechanisms that exist between them. All the additional information (such as CVs) should be attached to the annexes.

* **Annexes**

The annexes should include all the information that is important, but is too large to be included in the text of the proposal. This information can be created in the identification or planning phase of the project, but often it is produced separately. The usual documentation to be annexed to the project proposal is:

• analysis related to the general context (e.g. a civil society sector assessment);

• policy documents and strategic papers (e.g. a local environmental action plan);

• information on the implementing organisations (e.g. annual reports, success stories, brochures and other publications)

• additional information on the project management structure and personnel (curriculum vitae for the members of the project team);

• maps of the location of the target area; and

• project management procedures and forms (organisational charts, forms, etc).

* **TOPIC MATERIALIGURE 11**

**Total Budget: 21,345**

Income:

■ Foundation X 12,345

■ Contribution from local government 8,000

■ Provided by organisation itself 1,000

**Total income: 21,345**

**Sample Income Form** (in EUR)**URE 12**

**Total Budget: 21,345**

Expenditures:

■ Salaries (6 months X EUR 500) 3,000

■ Consultants (3 trainers X 3 days 2,700

X 3 trainings X EUR 100 per day)

■ Office supplies 1,345

■ Travel and lodging 4,250

■ Direct costs 8,750

■ Equipment 3,300

**Total expenditures: 21,345**