Session 4

Project Identification and formulation

The learning objective of the lesson 4 is to understand the activities to be performed under project identification and project preparation or formulation of the project. Thus the session 4 would focus on identifying a project through problem analysis, need assessment and identification test ant formulation of the project by conducting feasibility study and logical framework analysis. So, learning outcome of the session is that to apply planning techniques for formulation of good project document.

4.1 Project identification

Project identification starts from an understanding of the mandate, vision and objectives. It involves

Identifying environmental problems to be addressed and the needs and interests of possible beneficiaries and Stakeholders.

The problems and the most realistic and effective interventions are analyzed, and ideas for Projects and other actions are identified and screened.

1. Situation analysis/ problem Analysis

An environmental situation needs to be assessed and analyzed. This objective analysis enhances understanding of the likely causes and linkages between existing problems and the needed actions. A Situational analysis based on a scientifically sound conceptual framework generates key actions and strategies

To be applied for the intended project intervention. Latest country reports and statistics prepared by Governments, researchers, or international organizations on the relevant environmental, social and economic issues, including gender and poverty, can be facilitated the assessment.

A situation analysis should include analyses of needs, interests, strengths and weaknesses of key stakeholders and beneficiaries.

These analysis are depend on the levels of projects wether i.e. it

implements at national, provincial or the divisional levels.

The identification test

A proposal may be considered to have passed the identification test and be ready for detailed preparation when: Major options and alternatives have been identified and some initial choices made;

1. The principal institutional and policy issues affecting project outcome have been identified and deemed amenable to solution;
2. The project options selected are expected to be justified, given rough estimates of the expected costs and benefits;
3. There is justifiable expectation that the project will have adequate support from the relevant political authorities, other stakeholders and the intended beneficiaries;

Preparation of concept proposal for sponsorship

Project formulation begins with the drafting of a proposal for sponsorship (a short concept proposal of 4–5 pages) that lays out preliminary ideas, objectives, results, strategies, outputs and activities. This proposal issued as the basis for consultations with implementing partners and Governments. Section IV details the format and procedures for preparing concept proposals for sponsorship.

Some technical project may adopt particular approach to identify all the requirements. It includes

Functional Decomposition: each components should be decomposed (disintegrate) until all the requirements are met

Gap Analysis: Compare the present state and the desired state

Reverse Engineering: Use existing object Steps in Selecting Best projects

4.2 Preparation and Formulation

Preparation of a good project proposal is not an easy task. It should fulfill all the requirements of the stakeholders particularly beneficiaries, donors and the government while achieving project goals. Thus, project formulation is linked with a compressive work related to testing viability of technical, economic, institutional and environmental aspects.

4.2.1 Feasibility study

A feasibility study should form the core of the project proposal preparation process. Its purpose is to <u>provide stakeholders with the basis for deciding whether or not to proceed with the project and for choosing the most desirable options.</u> It is expected to judge feasibility in terms of cost and benefits to be attained from the project. The feasibility study must provide answers to the following basic questions:

> ➢ Does the project conform to the development and environmental objectives and priorities of the specific country and or region?
> ➢ Is the project technically and scientifically sound, and is the methodology the best among the available alternatives?
> ➢ Is the project administratively manageable?
> ➢ Is there adequate demand for the project's outputs?
> ➢ Is the project financially justifiable and feasible?
> ➢ Is the project compatible with the customs and traditions of the beneficiaries?
> ➢ Is the project likely to be sustained beyond the intervention period?

Basically, there are two type of feasibility studies (Mollett, J.A.1984 and Pathirage, P. 2013).

4.2.3 Pre-feasibility Study:

Pre-feasibility study is conducted at the project identification stage in order to assess needs, interests, strengths and weaknesses of the project. It helps project implementers, stakeholders and sponsors to understand the viability of the project. If the project is not viable then it could be rejected or changed as the requirements. If it viable then policy planners hope to implement it by conducting a detailed feasibility study.

4.2.3 Detailed Feasibility Study:

Thus a detailed feasibility is a comprehensive and in-depth analysis that explore the, market feasibility, technical feasibility, Economic feasibility, and financial feasibility, environmental and legal feasibilities of the project. Following is a description of the various feasibilities to be conducted (Pathirage, 2013, www. project feasibility, 2017).

Market feasibility

Market feasibility is a study conducted for assessing marketability of the project. Particularly it involves testing geographic locations for a real estate development project related to parcels of real estate land. Market Feasibility takes into account the importance of the business in view of demand, market segments, periphery and alternative products etc. Basically two issues are addressed by a market study.

> ➢ What is the expected aggregate demand for the proposed good or service?
> ➢ What is the market for the proposed good or service?

Most market feasibility studies include five aspects (ttps://www.quora.com, 2018)

1. Current Market Analysis
2. Competition or presence of competing products.
3. Anticipated future market potential.
4. Potential buyers and sources of revenues.
5. Sales projections.

Technical feasibility

Technical feasibility is an assessment about technical viability of input, processes, output, fields, programs and procedures related to proposed project or the product. Thus the assessment is based on an outline design of system requirements, to determine whether the company has the technical ability to handle the project. At this level, it concerns whether the project is viable in terms of technical and legal aspects.+

The technical assessment is focused on gaining use of existing technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed project. When writing a technical feasibility report, following aspects are considered mainly.

1. Location of the project
2. Availability of raw materials

3. Power
4. Man Power
5. Management
6. Technical Knowhow

Financial feasibility

The financial feasibility is an assessing commercial profitability of the project in order to determine whether the financial investment is profitable or not. Financial feasibility is calculated by two approaches and methods.

1. Static Analysis
   - Pay Back Period
   - Average Rate of Return
2. Dynamic Analysis
   - Net Present Value (NPV)
   - Internal Rate of Return (IRR)
   - Benefit Costs Ratio (BCR)

Thus, financial viability can be judged on the following parameters:

- Total estimated cost of the project
- Sources of financing of the project in terms of its capital structure, debt to equity ratio and promoter's share of total cost
- Existing investment by the promoter in any other business
- Projected cash flow and profitability

Economic feasibility

The purpose of assessing economic feasibility is to determine the effects and impact of the project on the society both in terms of economic and social values, particularly in terms of social costs and benefits. It includes quantitative and qualitative assessment on the costs and benefits. Two methods applied to measure social values. It includes

UNIDO Method

OECD Method

Legal feasibility]

Determines whether the proposed system conflicts with legal requirements, e.g. a data processing system must comply with the local data protection regulations.

Environment (Resource feasibility)

This involves questions such as how much time is available to build the new system, when it can be built, whether it interferes with normal business operations, type and amount of resources required, dependencies, and developmental issues.

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

The operational feasibility assessment focuses on the degree to which the proposed development projects fits in with the existing business environment and objectives with regard to development schedule, delivery date, corporate culture, and existing business processes.
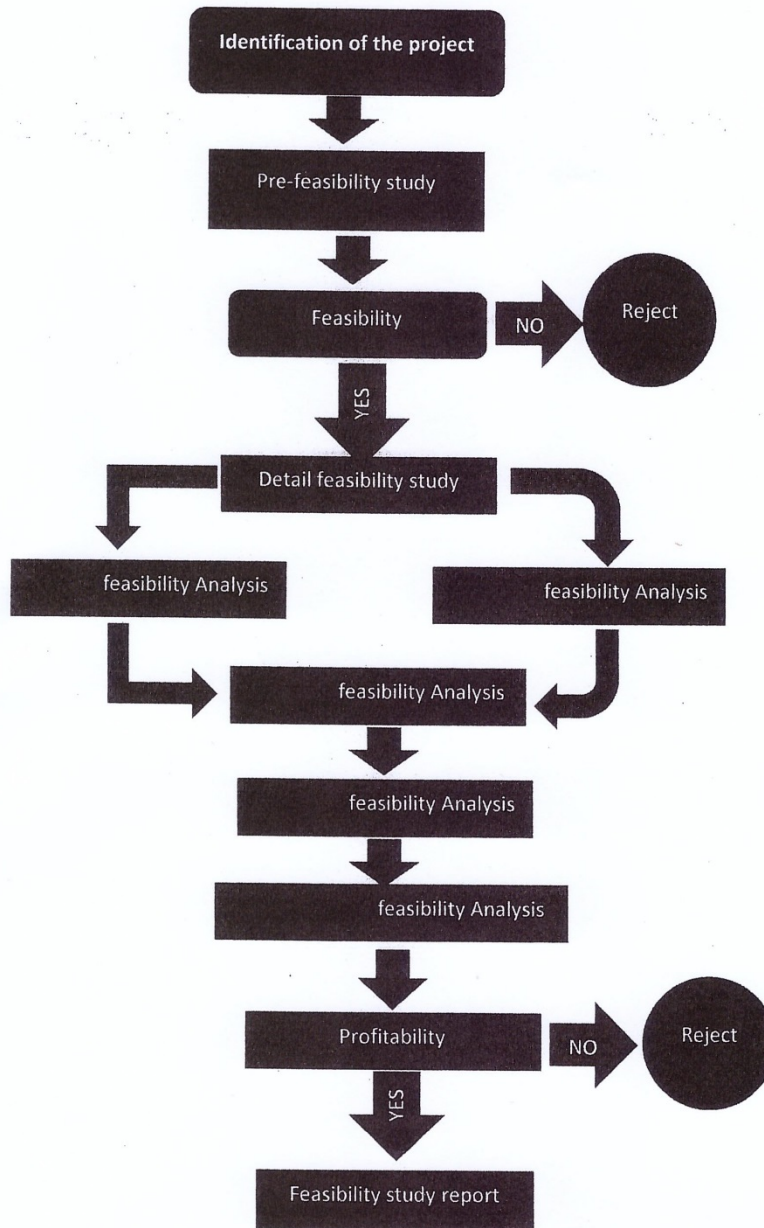
To ensure success, desired operational outcomes must be informed during design and development. These include such design-dependent parameters such as reliability, maintainability, supportability, usability, reducibility, disposability, sustainability, affordability and others. These parameters are required to be considered at the early stages of design if desired operational behaviors are to be realized. A system design and development requires appropriate and timely application of engineering and management efforts to meet the said parameters. A system may serve its intended purpose most effectively when its technical and operating characteristics are engineered into the design. Thus, operational feasibility is a critical aspect in determining sustainable design of project.

4.3 Project document formulation

Project preparation, formulation and project document formulation are **simultaneous** processes. Once the feasibility study has taken place and implementation arrangements are agreed upon, the concept proposal (which would have been revised throughout the process) is transformed and expanded into a project document throughout the project preparation and formulation phase.

The project document is a summary of the situation assessment, justification of objectives, methodology and strategies for achieving the targeted changes, which come from each step taken through project cycle phases 1 and 2. Since project formulation is an iterative process, it is important to consult again with selected partners and colleagues as the document is formulated.

The process of feasibility study

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The Session 5

Logical Framework Analysis and Project Planning

5.1 The Logical Framework

The logical framework is an important technique used in project formulation. According to Wikipedia, it defined as a methodology that used for designing, monitoring and evaluation of international projects. It developed in 1969 by the USAID for guiding its projects implemented in developing countries, as a method of Practical Concepts guidance. Thus Logical Framework Approach (LFA) was designed to improve its project planning and evaluation system. Basically it concerns three aspects in project design.

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

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

5.1.1 Logical Framework Matrix (Log frame Matrix or LFM)

LFM is consisted of four-by-four project table. The rows represent goal, purposes, outcome and activities and the column represent Objectively Verifiable Indicators (OVIs, Means of Verification (MoV) and Assumptions   Thus Log frame matrix comprises 16 "boxes" (see fig 4.1), but establishing a Log frame matrix doesn't mean to "**fill in the boxes" only. Behind every "box" there is careful analysis and logical reasoning that has to be pursued before filling in the boxes w**hich

is only the final activity, the product. If this process is not carried out during idea and project development, it applies to project development in general.

The log frame matrix as its principal outcome: flexibility in its use is essential as it based on the analysis of an existing situation, and situations or circumstances can change as the project develops. Those changes might have to be taken up by reviewing and adapting the project design – and the matrix consequently. A log frame matrix should reflect a project strategy derived from the careful analysis of an existing situation – not vice versa.

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

Within the **horizontal logic (Axis) of** the matrix indicators to measure progress and impact are specified and the sources or means by which the indicators will be verified. The matrix serves as a summary of the key information on the project. It provides an easy overview that allows a quick assessment of the consistency and coherence of the project logic.

5 .2 Benefits associated to the application of the LFA

According Project Cycle Management manual adopted by the European Commission, benefits of Using LFA in project planning was recognized as improving the project design, fostering the project performance and facilitating project management (www.dfid.gov.uk/pubs/files/toolsfordevelopment.pdf, 2016):

It also shows that the LFA can help to achieve:

A structured project design process. LFA suggests a logical sequence, interlinking the individual steps in the design process.

Transparency. The reasons why a certain project is meant to be implemented are determine on what are the problems and whose problems are they? and the internal logic of project design that expected to achieve and how?.

Participation of the stakeholders involved in the project design and management,

A consistent project strategy. The LFA provides tools to clearly link causes and effects. It also takes into account risk as external factors that are crucial for the success of the project, but lie outside the control of the project.

Objectively verifiable indicators. Indicators describe objectives in measurable "empirically observable" terms and provide the basis for performance measurement and project monitoring and evaluation.

Flexibility in adapting to changing conditions (that are of relevance for the project). The LFA establishes a framework that makes the underlying rationales and assumptions transparent and helps to react to changes by, e.g., revising the design.

The most important benefit however has to be the coherence and compatibility of the LFA as a design approach for EU projects with the Project Cycle Management adopted by the European Commission in the early nineties. The structure of the LFA is matching the PCM-derived structure of the EC evaluation criteria which is also applied during the evaluation of proposals submitted in EU.

5.2 .1 Advantages of the Logical Framework approach

According to Centre for International Development and Training of the University Of Wolver Hampton UK; the advantages of using LFA was summarized as follows.

*It brings together in one place a statement of all key components of the project or programme.

Having all key components of projects or programme in a systematic, concise and coherent way helps you clarify and demonstrate the logic of how projects and programmes are expected to work. It can also help you separate the various levels in the hierarchy of objectives, and consequently ensure that inputs and outputs are not confused with each other or with objectives. This can be particularly helpful when there is a change of staff.

* It meets the requirements of good project design and enables possible responses to past weaknesses in many designs.

It can help ensure that fundamental questions are asked and weaknesses are analyzed in order to provide decision makers with better and more relevant information. It can also guide you in systematically and logically analyzing the inter-related key elements which constitute a well-designed project. This approach can help you improve planning by highlighting linkages between project elements and important external factors.

* It is easy to learn and use.

Effective training in the basics of the Logical Framework approach can be given in a few days. If this is combined with follow-up training and process consultancy to sort out difficulties a key group of project staff can be trained effectively in a short period of time.

* It does not add time or effort to project management, but reduces it.

Like many other management tools the Logical Framework approach has to be learnt before it can be effectively used. Once learnt however, it can save you a lot of time. Many project staff report that they are often short of time and work against the clock on a regular basis. Any time saved in relation to project management work would be of great value.

* It can be used internally for design and appraisal process and can be used externally with consultants working for development organizations.

The Logical Framework approach can be used to help both design and appraise projects internally. Likewise it can be used with external consultants who may be involved with design and appraisal processes. In addition the Logical Framework approach encourages a multidisciplinary approach to project design and supervision.

* It anticipates implementation.

The Logical Framework approach helps sets up project activities with a clear purpose. The approach facilitates common understanding and better communication between decision makers, managers and other parties involved in projects. Likewise the use of Logical Frameworks, with systematic monitoring, ensures continuity of approach if and when any original project staff move or are replaced.

* It sets up a framework for monitoring and evaluation where planned and actual results can be compared.

By having objectives and indicators of success clearly stated before the project starts the approach helps you set up a framework for evaluation. It is notoriously difficult to evaluate projects retrospectively if the original objectives are not clearly stated. The Logical Framework approach can help clarify the relationships which underlie judgments about the likely efficiency and effectiveness of projects, likewise it can help identify the main factors related to the success of the project.

* It assists communications between project donors and implementers.

As more and more institutions adopt the Logical Framework concept Communications between project implementers and donors will be facilitated. This will have major advantages for organizations who are continually presenting projects to donors for funding. In earlier times, budgets seemingly grew more easily and rapidly than now is often the case.4

5.2.2 Limitations to the Logical Framework approach

It also observed certain limitations of using LFA. It includes;

It is not a substitute for other technical, economic, social and environmental analyses. It cannot replace the use of professionally qualified and experienced staff.

I. The Logical Framework approach can help project design, Implementation and evalua**tion, but clearly does not do away with the need for other project tools especially those related to technical, economic, social and environmental analyses.** Similarly, the approach does not replace the need for professional expertise and experience.

II. Rigidity in project management may arise when objectives and external factors specified during design are over emphasized.

III. Rigidity in project administration and management can sometimes arise when Logical Framework objectives and external factors specified during design are over emphasized.

5.3 The LFA as a tool to improve project implementation and management

The applicability of the LFA is not restricted to project design but also encompasses the project management during the implementation phase and allows strategic monitoring and evaluation. One of the major tasks of project management during implementation is to verify that a project is actually achieving the intended objectives. An important means to do that is monitoring.

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

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

It is a participatory Planning, Monitoring & Evaluation tool that highlights the full range of views of intended beneficiaries and others who have a stake in the programme design. It is a tool for summarizing the key features of a programme and is best used to help programme designers and stakeholders.

The main components of LFA is presented in figure 5.1. Meaning of components in the vertical axis describe as follows;

- The **GOAL** is a bottom line condition of well-being of individuals, families, or communities. It is usually described in terms of quality of life improvement towards which the country programme will contribute

- The **PURPOSE** is determined by asking the question "how will this goal be achieved"

- The **OUTPUTS** are the deliverables through which the purpose will be achieved.

- The **ACTIVITIES** are the main elements of component projects through which the outputs are achieved

Meaning of components in the vertical axis describe as follows;

Narrative Summary: is a summary statements of goal, purpose, outputs and activities

Verifiable Indicators: it defines main indicators that could describe by goal, purpose, outputs and activities

Means of Verification It describes type and source of data that describe by goal, purpose, outputs and activities

Important Assumptions: It is an assumptions about the possible situation that would predict under the scenarios i. e. optimistic, pessimistic and normal.

Fig. 5 .1: Logical framework Matrix

Narrative Summary	Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions
GOAL			
PURPOSE			
OUTPUTS			
ACTIVITIES	Inputs		

Thus LFM is a "temporal logic model" that runs through the matrix that connected with hypothetical views as shown below.

- If these Activities are implemented, and these Assumptions hold, then these Outputs will be delivered.

- If these Outputs are delivered, and these Assumptions hold, then this Purpose will be achieved.

- If this Purpose is achieved, and these Assumptions hold, then this Goal will be achieved.

These are viewed as a hierarchy of hypotheses (https://en.wikipedia.org/wiki/Logical_framework, Down loaded 03.04.17)

5.4 Preparation of project Document

Considering the conceptual base of project planning it is not an easy task to prepare a good plan document. Following are the main ingredients to be included in a project document irrespective of either public or private sector plans.

Vision – Expected Outcome

Mission- Action to be taken to achieve the vision

Goal- The end result of the project/program or policy/plan

Objectives- Intended actions to realize the vision and the mission. To be SMART

Strategy- The method and the Policy to be taken to achieve mission

Rationale – Justification of the plan and the activities

Outputs –intended product or activities

Activities – Actions to be taken to realize objectives (outputs)

Resources (Inputs)

Stakeholders- Beneficiaries, project staff, suppliers and

Time Horizon- Gannet chart

Budget