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Designing

PROJECTS

COURSE

Designing Projects

OUTLINES

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Unit 1: Results Chain
Unit 2: Project Designing Tools
Unit 3: Logical Framework Analysis

Assignments
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OBJECTIVES

- At the completion of the chapter, the practitioner will be able to:

- Develop the Results Chain for a project

- List and briefly describe Project Designing tools

- Describe Logical Framework Analysis for designing projects

- Describe the Logical Framework Analysis and Project Planning Matrix

INTRODUCTION

Having understood what is project and project cycle, it is important to understand what *project designing* is in order to ensure effective and useful M&E. M&E per se is not an activity that starts at the time the project is nearing completion. Monitoring starts from the day the project is rolled out, therefore, the M&E system needs to be conceived during the project design itself.
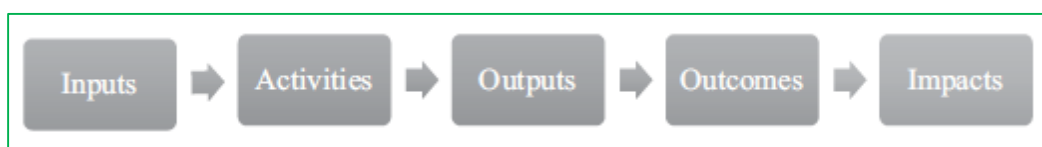
1. RESULTS CHAIN

During the project designing phase, it is essential to specify all activities and objectives that are to be achieved through the project. The *results chain* helps to manage projects, and at the same time, to understand the causal linkage between project intervention and its desired impact rather than managing the project based solely on activities. It helps to formulate a roadmap to the envisioned change, while highlighting the necessary conditions and assumptions required for ushering in a change in each situation (Foundations of Success, 2007).

Operations are based on the 'if-and-then' logic. For example, *if* we put fuel in a car's fuel tank, *then* only can we drive and go somewhere in it. This 'if-and-then' logic is the means-to-an-end relation or a cause-and-effect connection between the system components. So, what implication does this system model have for projects?

Every project, as we know, has its own rationale of intervention, one that clearly addresses the nuts-and-bolts of the problem of 'what', 'when', 'why', 'how', 'who' and 'where'. The clearer a project is about the logic of change underpinning its project activities or processes, the better it can deliver the results or achieve the objective it has in mind.

A results chain thus describes the causal pathways of the activities translating into expected results i.e., the outputs, outcomes and impacts of a project. The results chain helps to track the progress of the project from its more immediate results (outputs), to a result more proximate to the achievement of the objective (outcome) and finally to a long-lasting result or goal (impact). A basic results chain has the following components:

Results Chain

Inputs: This includes the resources that are available or allocated for the project. Input resources may be natural, human, and financial, depending upon the nature of the project. For example, funds allocated, human resources deployed, laptops allotted etc.

Activities: Activities are actions undertaken using the resources. In simpler terms, this is the work performed that converts inputs into outputs. For example, the training of frontline health workers (FLWs) on the counselling of women, building of separate toilets for girls in schools etc.

Outputs: Outputs are the immediate effect of the activities of a project. Outputs are also defined as the short-term results and often form the deliverables of the project. For example, counselling of mothers on institutional delivery is the output achieved from the activity training of FLWs on counselling. Also, the increased attendance rate of girls is an output of the activity of building separate toilets for girls in schools.
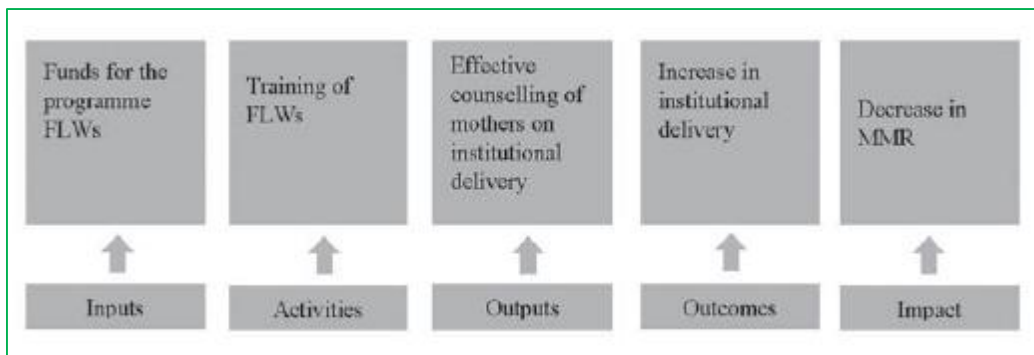
Outcomes: The mid-term results likely to be achieved from outputs are called outcomes. Outcomes are generally the objective which the project aims to achieve. For example, 'increase in the rate of institutional delivery' is an outcome achieved through the output of 'effective counselling of women on institutional delivery'. Also, 'increased female literacy' is an outcome achieved through the output of 'increased female attendance rate'.

Impact: The final desired goal or the macro level goal that the project envisages to achieve is defined as its impact. Impact is what the project aims to contribute towards rather than trying to claim that it is what it would achieve by itself. For example, 'decreasing the Maternal Mortality Rate (MMR)' is the impact which the project aims to contribute to by providing the outcome, which is, 'increase in the rate of institutional delivery'. Also, 'increase in the empowerment level of women' is the impact which the project aims to achieve through its outcome of 'increased female literacy rate'.
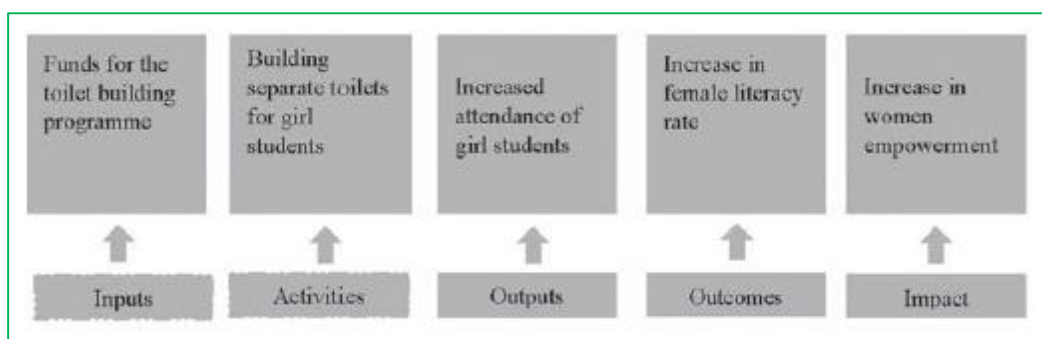
Governing the interrelationships between inputs, activities, outputs, outcome and impact are several assumptions or enabling pre-conditions that are necessary for the delivery of project results and achievement of the project objective. They provide the necessary if not sufficient preconditions without which the project cannot hope to achieve its results. These assumptions are the causal inferences that govern the change processes in a project and lay the groundwork based on which correlations between the results, chain of inputs, outputs, outcome and impact are sought to be made explicit (Dharmendra Chandurkar, 2014).

Although generic in character, this framework can be fine-tuned to understand and unpack the non-linear, multi-contextual and multi-layered nature of change that defines and determines the landscape of a project. In general, it captures the project's broad canvas of change in one sweep, while it sheds light on the causal relationship among the various levels of change termed as outputs, outcome and impact.
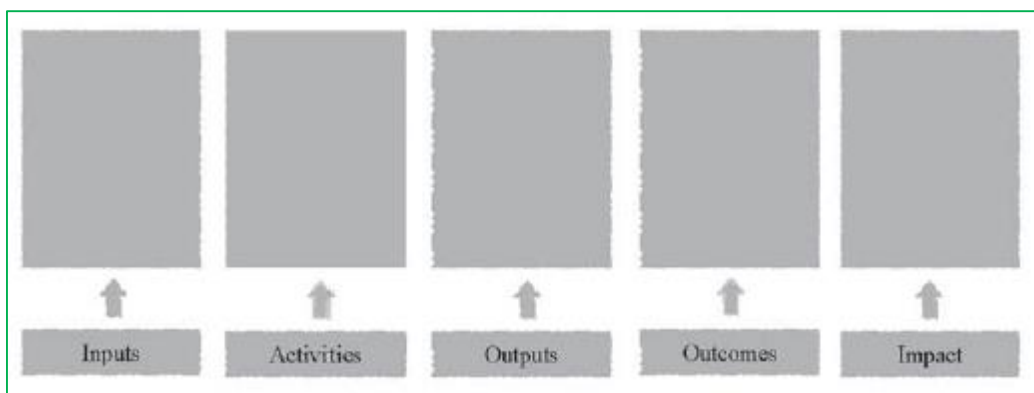
 Examples of the results chain are presented below.

Funds for the programme FLWs	Training of FLWs	Effective counselling of mothers on institutional delivery	Increase in institutional delivery	Decrease in MMR
⬆	⬆	⬆	⬆	⬆
Inputs	Activities	Outputs	Outcomes	Impact

Results Chain - Example 1

Funds for the toilet building programme	Building separate toilets for girl students	Increased attendance of girl students	Increase in female literacy rate	Increase in women empowerment
⬆	⬆	⬆	⬆	⬆
Inputs	Activities	Outputs	Outcomes	Impact

Results Chain - Example 2

|				
⬆	⬆	⬆	⬆	⬆
Inputs	Activities	Outputs	Outcomes	Impact

Results Chain - Example 3

Exercise: Can you think of other examples of results chain? Fill the results chain given below with your example.

Usually, in a project, there are multiple results that are envisioned and therefore the project has multiple chains. The example of a project with multiple results chain is presented below:
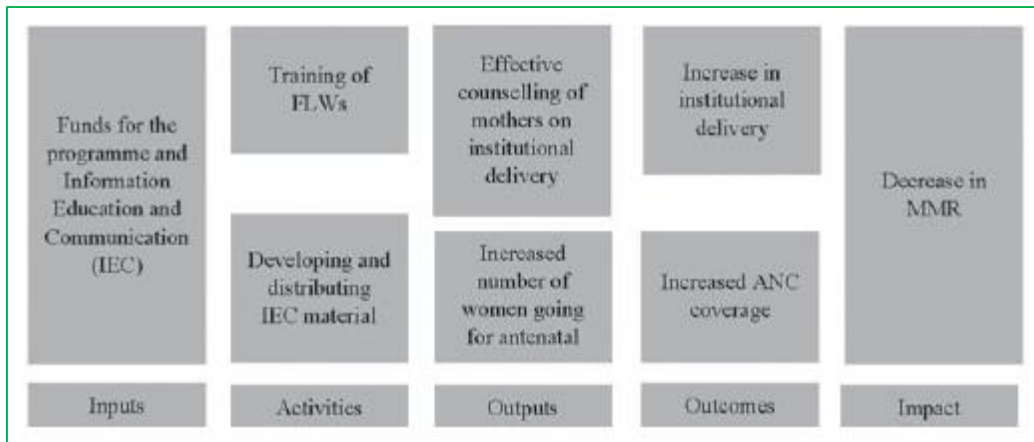
Results Chain - Example 4

2. PROJECT DESIGNING TOOLS

Various tools are used to structure and facilitate the process of project designing. In the development sector, the most commonly used tools are the Logical Framework Approach, Zielorientierte Projektplanung/Goal Oriented Project Planning (ZOPP/GOPP) and the Result Framework.

Logical Framework Approach or LFA is a simple project design tool that can helps to organize and structure our thinking while designing a project. As the name suggests, it is a logical approach for designing an efficient and effective project. On the one hand, it facilitates optimal resource allocation, while on the other hand, it sets performance measures and standards that provide a framework for M&E. All this helps in efficient project management.

ZOPP or GOPP is an adapted form of LFA that is suitable for the development sector. It also uses the same logical approach of LFA, but it is more flexible in accommodating the qualitative and subjective nature of issues inherent in the development sector.

Result Framework is more output oriented, as it focuses on the 'things that would be on ground' after completion of the project. These are basically the results that we want to achieve and the underlying assumption is that achievement of these results would lead to achievement of the envisaged objective.

All the above are tools for facilitating project development and each one has got its strengths and limitations. LFA is discussed later in greater detail.

3. LOGICAL FRAMEWORK ANALYSIS

LFA is an analytical and project management tool which is widely used by funding agencies, international nongovernmental organisations (NGOs) and many government agencies for the designing and management of development projects. It was developed in the late 1960s to assist USAID to improve its project planning and evaluation systems (Republic of Serbia, 2011). LFA supports objective oriented planning and management.

It can be used to perform systematic and structured analysis of a project or programme. This analytical process consists of a set of tools or techniques which can be used in managing development projects. Logframe matrix is the documented product at the end of conducting the logical framework analysis. On one hand, it facilitates optimal resource allocation, while on the other hand, it sets performance measures and standards that provide for a framework for M&E. It also takes into account the assumptions and risks envisaged while implementing the project (NORAD, 1999).

The steps that are followed in conducting an LFA are explained below. An example is used to reinforce the reader's understanding of this concept.

Situation analysis: A project, as the practitioner is aware, does not exist in a vacuum, rather, it is a response to a situation or negative condition that it attempts to change. In the first stage of LFA, which is known as *situation analysis,* attempt is made to understand the existing situation or condition to identify what is 'wrong' with the given context that needs to be addressed through programme interventions. Along with this, the causes for the situation are analyzed so that appropriate strategies may be adopted and specific activities designed targeting the causes. A good situation analysis serves as an entry point to the project by throwing light on what needs to be done under the project to address the negative conditions in each context.

Problem analysis: After the situation analysis, it is necessary to understand the problem at hand. Development projects are usually proposed as a response to address and overcome the identified social development issues. Problem analysis involves identifying the key problems and then establishing the cause and effect relationships between these problems. The primary purpose of this analysis is to try and ensure that it is not just the symptoms of the problem(s), but the 'root causes' that are identified and subsequently addressed (Kari, 2004).

For example, if a person goes to the doctor with high fever and the doctor prescribes medicine for high fever without diagnosing the cause for the fever, then the doctor is simply treating the symptom but not the cause of the problem. If the real cause of the fever is not discovered, it is quite possible that the fever will persist after the effect of the medicine wears out. Similarly, projects which only address the effects of the problems and not the underlying causes are unlikely to bring about sustainable benefits.

A common method used to identify the core problem is the *problem tree,* which helps to visually depict the connection between the various possible causes of the problem. This is best explored in a

participatory workshop with key project stakeholders, who are asked to write down both the causes and effects of the problem in a structured way. This procedure makes it possible to clearly visualize the causes of the focal problem and its effects and to find out how different problems are related to each other. The next step is to plan activities and implement them within the framework of the project to treat the causes of these problems.

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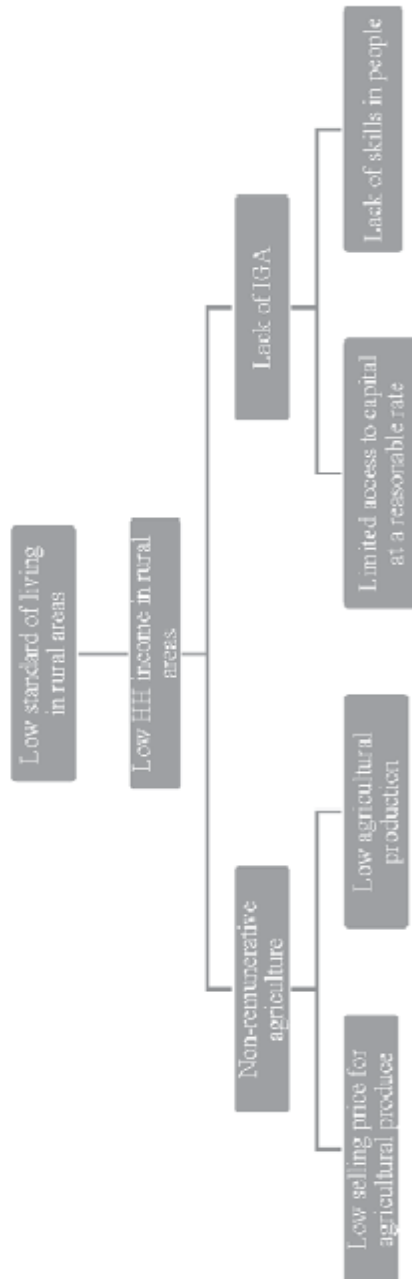
Problem Analysis - Example

A clear and comprehensive problem analysis helps to build a sound foundation on which relevant and focused project objectives can be built. A simplified example of a problem tree for a project which envisages to increase the HH income and thereby contribute to improving the standard of living in rural

areas is presented below. The two key causes for the problem of low income in rural areas are identified and stated, viz., non-remunerative agriculture and lack of income generating activities (IGA). The further causes of each of these problems have also been listed in the problem tree.

Objective analysis: After identifying the problems and developing the problem tree, the next step is to conduct the *objective analysis*. Objective analysis is done to formulate the objectives of the project by developing an objective tree. The objective tree uses the same structure as the problem tree, but with the problem statements (negatives) turned into objective statements (positives). Based on insights from discussions with key stakeholders, the priority problems are identified.

This means that the original problem statement does not need to be translated into objective statements. While the problem tree shows the cause and effect relationship between problems, the objective tree shows the means to the end relationship between the objectives.

This leads directly to developing the project's narrative description in the form of the Logical Framework Matrix. The objective tree needs to be developed for the problems which the project aims to solve through its intervention. The objective tree delineates a logical sequence or cause and effect relation that needs to be followed to solve the problems as presented in the problem tree.

The objective tree of the example project intervention is presented in the diagram given below. In this case, 'Increasing HH income in rural areas' becomes the key objective/result which the project wants to achieve, and this is called the project outcome, which further contributes towards the intended impact i.e., 'Increasing standard of living in rural areas'. The short-term results i.e., the outputs and the activities planned to be undertaken in the project are the branches of the objective tree.

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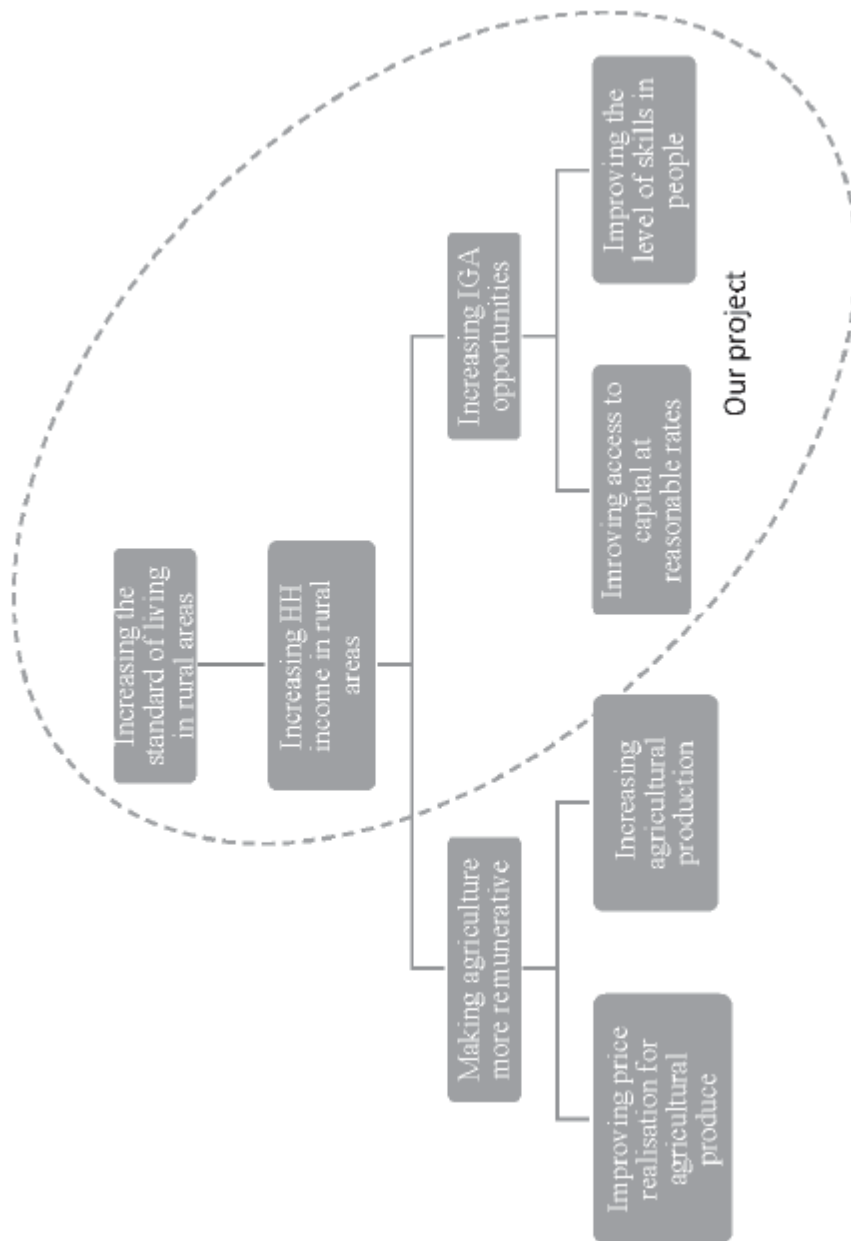
Alternative Analysis - Example

Risk and assumption analysis: After the project intervention is selected based on the analysis of the alternatives, it is very important to assess and address (to the extent possible) the potential project risks. Projects are always subject to influence by factors beyond the control of the project implementation team. This is applicable in the context of development projects too, where among other factors, the cooperation of various stakeholders, behavior change or the target group's willingness to participate are essential for the project to fulfil its desired objective. Analysis of possible critical

external and internal factors/risks gives the opportunity to assess the conditions that the project is working under.

Based on the *risk analysis*, the project management develops a risk management plan i.e., a plan of how to avoid potential risks. Some logframes prefer to use the term *'assumptions'* instead of 'risks', the distinction being that while risks are negative statements about what might go wrong, assumptions are positive statements about the conditions which need to be met to ensure that the project activities are being implemented as planned. Whether the term 'risks' or the term 'assumptions' is used, the purpose is the same, i.e., to assess and adapt the external impacts of the project to improve where possible, the robustness of the design.

After identifying the key risks associated with the project logic model, they can be plotted on a 2*2 matrix consisting of Impact and Likelihood on its axis. The project management should aim to mitigate the risks which lie in the top-right most quadrant i.e., risks which can have high impact and high likelihood as these risks can jeopardise the project in achieving its objective. The 2*2 matrix used for plotting potential risks is presented in the figure given below.

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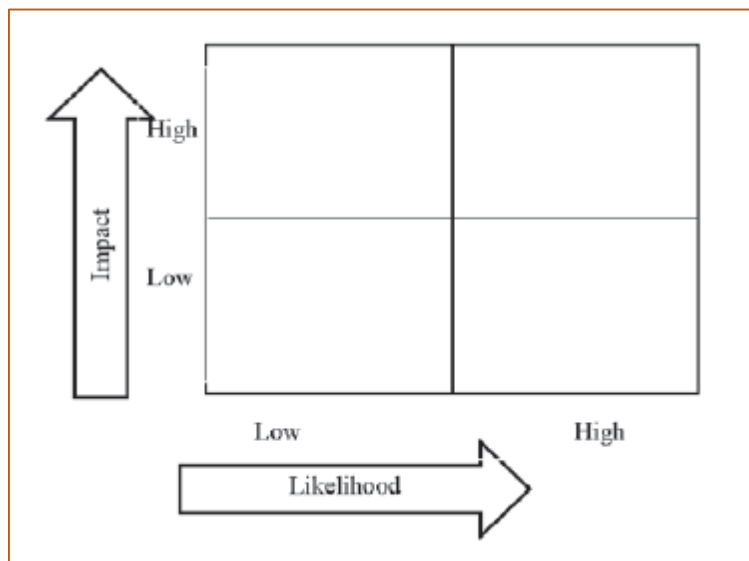
Risk Analysis

Also, in the case of the example used, several risks associated with the project can be identified. It is a good practice to identify risks, which can be both internal and external, at each level of programme

implementation, i.e., from activity to output level, output to outcome level, outcome to impact level. The risks identified with the example project are listed below:

External Risks:

1. There is not enough demand of the goods produced under IGAs taken up by the target group.
2. Raw material cost is very high making the IGA unviable.
3. Shortage of availability of raw material.

Internal Risks:

1. Enterprises are not able to develop market linkages for selling their products.
2. Banks do not easily provide loans to individuals or self-help groups (SHGs) supported by the project.
3. The project target group is not self-motivated and enterprising enough to adopt new IGAs.

Development of Project Planning Matrix: Results of the situation, problem, objective, alternative and risk/assumption analysis are used as the basis for developing the Project Planning Matrix (PPM) or logframe. PPM or logframe, which is said to be a snapshot of the project intervention, is explained in detail in the next sub chapter.

The Logframe: The logframe or the PPM is a four-by-four matrix that details the logical connect between the various components of the project as well as the framework for assessing the performance.

Vertical Logic	Horizontal Logic			
	Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions/ Risks
Goal				
Outcome				
Outputs				
Activities	Inputs			

Logframe Format

The basic philosophy of the logical framework approach (LFA) is the logical approach in achievement of the impacts, where inputs given through activities leading to outputs and further to outcomes, which finally contributes towards impacts. This hierarchy forms the rows of the PPM matrix and the logical connect between various levels is termed as the vertical logic (FAO).

Performance measures called *indicators* are set for each hierarchical level, with sources of information listed for each indicator. Finally, assumptions that make activities translate into outputs, and outputs to purpose, or purpose to goal are also listed. This forms the horizontal logic of the PPM. Columns and rows of the PPM are given above.

The logframe of the example project which aims to contribute towards increasing the HH income in rural areas is presented below. Objectively verifiable indicators (OVI) and means of verification (MOV) are discussed in detail later.

Horizontal Logic

	Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions/ Risks
Vertical Logic	**Goal** Increasing the HH income in rural areas	• HH income	Structured Interview Schedule	**Goal to Outcome** Non-profitability of the enterprises due to reasons like no market linkages, low demand and competition from the external market.
	Outcome 1. Increasing IGA opportunities	• Proportion of targeted beneficiaries engaged in micro-enterprises	Structured Interview Schedule	**Outcome to Impact** There is not sufficient uptake of IGA opportunities by target beneficiaries
	Outputs 1.1 Improving access to capital at reasonable rates 1.2 Improving skill level in people	• Amount of credit taken from financial institutions • Percentage of people acknowledging improved access to finances • Percentage of people acknowledging access to credit/ finance through financial	Structured Interview Schedule	**Activity to Output** Financial institutions are not supportive of providing finance to target beneficiaries

		institutions • Rate of interest for credit		
	Activity: 1.1.1 Forming SHGs 1.1.2 Performing all pathway activities in formation and ensuring quality of SHGs 1.1.3 Linking SHGs with financial institutions for access to credit 1.2.1 Providing skill based vocational training to women 1.2.2 Providing life skills training to women	**Inputs** • Number of SHGs formed under the project • Number of SHGs for which all pathways activities were performed • Amount of credit provided through linkages with banks • Number of people given vocational skills training • Number of people trained in life skills	Project MIS/Reports	

Logframe - Example

The logframe should be used as the basis of the funding application and then throughout the project lifecycle to track progress and adapt to changing situations. It can be used to review assumptions and implications, and to keep donors and other stakeholders informed of significant changes related to the project.

ASSIGNMENT

What is your understanding of project designs?

REFERENCES/FURTHER READINGS

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2. Kari, O. (2004). *The Logical Framework Approach.* SIDA .

3. NORAD. (1999). *The Logical Framework Approach: handbook for objectives-oriented planning.*

4. Republic of Serbia. (2011). *Guide to Logical Framework Approach: A Key Tool to Project Cycle Management*