



Practitioner's Guide:

Planning Using The Project Planning Matrix (PPM)



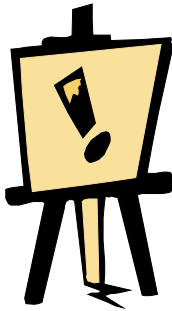
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Planning Using The Project Planning Matrix (PPM)

Brief Description



The Project Planning Matrix (PPM) enables decision makers to identify project purposes and goals and plan for project outputs and inputs. The technique is used for planning projects, providing an objective basis to evaluate projects and to state assumptions about causal linkages. The PPM provides a *one page overview* of any project and it is based on causal reasoning and thought (i.e. if a certain activity is undertaken it will achieve a certain result).

Figure 1: Vertical and Horizontal Logic of the Project / Programme Planning Matrix

		NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
VERTICAL LOGIC (1) 		HORIZONTAL LOGIC			
		OVERALL GOAL The broader development impact to which the project contributes -- at a national and sectoral level.	Measures of the extent to which a contribution to the goal has been made. Used during evaluation.	Sources of information and methods used to collect and report it	
		PURPOSE The development outcome expected at the end of the project. All components will contribute to this.	Conditions at the end of the project indicating that the Purpose has been achieved. Used for project completion and evaluation	Sources of information and methods used to collect and report it	Assumptions concerning the purpose/goal linkage
		RESULTS / OUTPUTS The direct measurable results (goods and services) of the project which are largely under project management's control	Measures of the quantity and quality of outputs and the timing of their delivery. Used during monitoring and review.	Sources of information and methods used to collect and report it	Assumptions concerning the output/component objective linkage
		ACTIVITIES / INPUTS The tasks carried out to implement the project and deliver the identified outputs. Implementation/work programme targets. Used during monitoring.	RESOURCES NEEDED FOR IMPLEMENTATION At the input/activity level, the resources required have to be stated. The planner has to have an overview of the proposed expenditure for each of the project components including the expected income generated (i.e. from levies, local taxes, etc.).		Assumptions concerning the activity/output linkage
		VERTICAL LOGIC (2)			

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Proposed Main Users

Provincial Planners, District Planners,
Project and Programme Planners.



Purpose of the Method



During routine evaluation of development projects in the early 1970's a number of recurring factors were noted, including the fact that:

- ▶ There was a lack of clear statement on project objectives. Projects tended to follow many different objectives that were not always necessarily part of the main components.. There was a great deal of uncertainty about what the projects should achieve in the long term, it was therefore not possible to objectively compare planned objectives with those actually achieved.
- ▶ The management responsibilities were unclear. It was difficult to define precisely who was responsible for what.
- ▶ Evaluations did not have an objective basis because of the lack of clear goal formulation, both at the planning level and more particularly at the implementation level.
- ▶ Lack of accurate prediction of time, personnel and the resources required.
- ▶ Project descriptions were often lengthy and difficult to understand quickly.

As a direct result of these planning constraints the Logical Framework technique was developed in order to:

1. Separate what project managers could expect to accomplish from the postulated consequences of those accomplishments.
2. Consistent with "management by objectives," have clear targets that would define success.
3. Enable project teams to iteratively improve project design and focus.
4. Focus evaluation on improving future performance rather than assigning blame.
5. Force a clear definition of success as a project end point, defying the contractor and university driven culture by which projects continued indefinitely.
6. Consistent with scientific method, define exactly how one will verify success or failure—a thing is not defined until and unless you say how it will be measured.

The name of the technique has since changed to being termed the Project Planning Matrix (PPM) and it is currently in use by numerous international development organizations, private sector organizations and in some cases also by commercial companies.

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Advantages



- ▶ The PPM is simple to understand. It provides a structure for concepts, ensuring that the decision-maker thinks through the fundamental aspects of a project design.
- ▶ The PPM aids in evaluating projects since both initial goals and final results are clearly delineated.
- ▶ By explicitly identifying how the project is to be evaluated, the decision-maker can make realistic estimates of project outcomes and can identify problems, which might be encountered.
- ▶ PPM is part of an overall logical planning sequence that includes a problem identification, analysis of interest groups, objective analysis, analysis of alternatives and finally a plan of operations and monitoring and evaluation sequence.
- ▶ Provides logical link between means and ends.
- ▶ Places activity within broader development environment.
- ▶ Encourages examination of risks.
- ▶ Requires analysis of whether objectives are measurable.
- ▶ It brings together in one place a statement of all the key components of a project.
- ▶ It separates out the various levels in the hierarchy of objectives, helping to ensure that inputs and outputs are not confused with each other or with objectives and that wider ranging objectives are not overlooked.
- ▶ It provides a basis for monitoring and evaluation by identifying indicators of success and means of quantification or assessment.

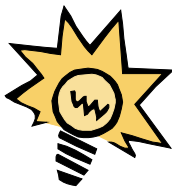
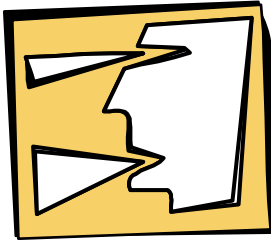
Limitations



- ▶ Unfortunately, the PPM is often seen as the panacea for solving all planning problems. It is basically an empty piece of paper that simply contains a sixteen-cell matrix! The quality of the PPM is still dependent upon the quality of work put in by those who use the technique.
- ▶ During the planning process the PPM does not take uncertainty into account. Neither does it allow for consideration of potential alternative actions.
- ▶ A linear causal sequence is assumed which is an unlikely simplification of the relationships among various project components and elements in the environment.
- ▶ Getting consensus on objectives.
- ▶ Reducing objectives to a simple linear chain.
- ▶ Inappropriate level of detail (too much or too little).
- ▶ Oversimplification of objective.
- ▶ Objectives become too rigid (blueprint).
- ▶ Ignoring unintended effects.
- ▶ Hides disagreements, rigid targets.
- ▶ Downgrading of less quantified objectives.
- ▶ Used for top-down control.
- ▶ Can alienate staff.
- ▶ Becomes a fetish rather than a help.
- ▶ Finding measurable indicators for higher-level objectives and 'social' projects.
- ▶ Establishing unrealistic targets too early.

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The PPM matrix should provide a *summary* of the project design and, when detailed down to output level, should generally be no more than five pages long. The PPM matrix has four columns and usually four or five rows, depending on the number of levels of objectives used to explain the means-ends relationship of the project.

The *vertical logic* identifies what the project intends to do, clarifies the causal relationships, and specifies the important assumptions and uncertainties beyond the project manager's control (columns 1 and 4 in figure 1).

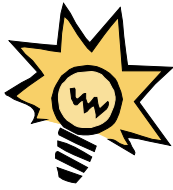
The *horizontal logic* defines how project objectives specified in the project description will be measured, and the means by which the measurement will be verified (columns 2 and 3 in figure 1). This provides the framework for project monitoring and evaluation.

Some important terms:

- ▶ **Project description** provides a narrative summary of what the project intends to achieve and how. It describes the means by which desired ends are to be achieved (the vertical logic).
- ▶ **Goal** refers to the sectoral or national objectives to which the project is designed to contribute, e.g. increased incomes, improved nutritional status, reduced crime. It can also be referred to as describing the expected impact of the project. The goal is thus a statement of intention.
- ▶ **Purpose** refers to what the project is expected to achieve in terms of development outcome. Examples might include increased agricultural production, higher immunisation coverage, cleaner water, or improved local management systems and capacity. There should generally be only one purpose statement.
- ▶ **Component Objectives.** Where the project or program is relatively large and has a number of components (output/activity areas) it is useful to give each component an objective statement. These statements should provide a logical link between the outputs of that component and the project purpose.
- ▶ **Results / Outputs** refer to the specific results and tangible products (goods and services) produced by undertaking a series of tasks or activities. Examples might include: irrigation systems or water supplies constructed, areas planted/developed, children immunised, buildings or other infrastructure built, policy guidelines produced, and staff trained. Each component should have at least one contributing output, and will often have up to four or five. The delivery of project outputs should be largely under project management's control.

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- ▶ **Activities** refer to the specific tasks undertaken to achieve the required outputs. Examples for a new community water supply might include: further design, establishing water users committee and maintenance procedures, site preparation, collection of local materials, tank construction and pipe laying, digging soak pits and commissioning. However, the PPM matrix should not include too much detail on activities otherwise it becomes too lengthy and potentially prescriptive. If detailed activity specification is required, this should be presented separately in an activity schedule/gantt chart format and not in the matrix itself.
- ▶ **Inputs** refer to the resources required to undertake the activities and produce the outputs, e.g. as personnel, equipment, and materials. However, inputs should not be included in the matrix format.
- ▶ **Assumptions.** Assumptions refer to conditions which could affect the progress or success of the project, but over which the project manager has no direct control, e.g. price changes, rainfall, land reform policies, non-enforcement of supporting legislation. An assumption is a *positive* statement of a condition that must be met in order for project objectives to be achieved. A risk is a *negative* statement of what might prevent objectives being achieved.
- ▶ **Indicators.** Indicators refer to the information we need to help us determine progress towards meeting project objectives. An indicator should provide, where possible, a clearly defined unit of measurement and a target detailing the quantity, quality and timing of expected results.
- ▶ **Means of verification (MOVs).** Means of verification should clearly specify the expected source of the information we need to collect. We need to consider how the information will be collected (method), who will be responsible, and the frequency with which the information should be provided.

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STEP 1: Vertical Logic 1 - Defining Objectives and Activities

1. The objectives are derived from the objective tree and related goal/objective setting techniques and transferred into the first vertical column of the planning matrix, as follows:
 - ▶ start at the top of the matrix and work downwards
 - ▶ decide on one overall goal and one purpose
 - ▶ If necessary review the wording in the objective hierarchy and make it more accurate
2. The objective describes the intended impact or anticipated benefits of the planned programmes as a precisely stated future condition (i.e. 'Completed...', 'Implemented...', 'Improved..'). The Purpose contributes to the overall goal.
3. The outputs are expressed as objectives which the implementing agency/group must achieve and sustain. Their interrelated impact must be appropriate, necessary and sufficient to achieve the objective.
4. Write down those inputs which are necessary to sustain the outputs, noting that to ensure clarity:
 - ▶ that not too many detailed activities are listed, but rather that the most essential activities necessary for achieving the programme (output) are detailed;
 - ▶ in contrast to the objectives, the inputs are expressed in the present tense (i.e. Plan project on population birth control, etc).
5. The inputs and outputs are given consecutive, related numbers. The numbering CAN be used to indicate the sequence of events or the priorities.
6. The narrative summary covers the operational MEANS ENDS Relationships in the plan structure (IF THEN).

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STEP 2: Vertical Logic 2 - Adjusting the "If-Then Logic" with Assumptions

1. Examine whether the activities directly generate the set of results or whether an additional event must also take place that is outside the project's influence.
2. Some of the important assumptions can be derived from the means ends relationships in the objective hierarchy and which were not incorporated into the project.
3. At each level, that is Input to Output, Output to Purpose and Purpose to Goal, the same procedure as in step one above takes place. Each level must contain the necessary and sufficient conditions (including assumptions) for the next higher level. At the lowest level, it may be necessary to define PRE CONDITIONS, these may be necessary for implementing the activities but they are outside the control of the project.
4. Important assumption are expressed in the same way as objectives, namely as positive conditions:
 - ▶ Important assumptions are described precisely, so that the planner can see whether these external conditions have taken place or not.
 - ▶ Only important assumptions are stated which are logically necessary additional conditions.
5. Assumptions that are important and are probable are termed 'Killer Assumptions' and they cannot be planned for. Should these Killer Assumptions occur the project plan must be amended or if there is no alternative strategy, the plan may have to be abandoned.

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STEP 3: Horizontal Logic 1: Defining Indicators

1. Indicators must be **Plausible**: Indicators should measure what is important in the narrative summary statement. It is very easy to fall into the trap of measuring what is easy rather than what is important. Sometimes what is important is also easy to measure, however one must focus on importance first, then on measurement. Indicators, to the extent possible, must correlate with what is being measured. The usefulness of an indicator diminishes if there could be several other reasons for a change in the indicator.
2. Indicators must be **Independent**: Indicators measure the change, which through implementation of the plan is trying to happen. The indicators are not the things that make the change. The question of independence of indicators at different levels is difficult. Perhaps, while trying to determine whether the indicators set are independent of the next higher level, assistance can be rendered by asking the following question: 'Are the indicators set, say at the purpose level, the things needed to create the purpose or are they signs that the purpose has been achieved?'
3. Indicators must be **Objectively Verifiable**: The prescribed statement must be accurate enough to make the indicator objectively verifiable. An indicator is objectively verifiable when different persons using the same measuring process obtain the same measurements quite independently of one another.
4. Indicators must be targeted: Indicators must be targeted in terms of quantity quality and time (and where necessary location):
 - ▶ Quantity How much
 - ▶ Quality How well
 - ▶ Time By when
 - ▶ Location Where
 - ▶ Gender For whom
5. If any of these criteria are missing, one cannot be entirely objective about whether one has been successful or not.

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STEP 4: Horizontal Logic 2: Defining the Means of Verification

1. Stipulate the sources of information to verify the indicator.
2. The means of verification column of the matrix contains an exact description of what information is to be made available, in what form and, where necessary, by whom. The sources of verification should be allocated numbers corresponding to those of the indicators.
3. Sources of verification which are external to the project, programme or plan are reviewed as to:
 - ▶ How much information they contain which is specific to the region and to the target groups,
 - ▶ How reliable, up to date and accessible this is,
 - ▶ Their composition and how they were obtained.
4. When suitable, external sources of verification cannot be identified; the information necessary to verify the indicators may need to be collected. For this purpose particular activities have to be planned.
5. Other, verifiable indicators must replace indicators for which it is not possible to identify suitable sources of verification.
6. Indicators which, after careful consideration of the costs and benefits, are too costly to collect the necessary baseline and additional data need to be replaced by more suitable and cost-effective indicators. This may require that the objective also has to be reconsidered and adapted accordingly.



STEP 5: Checking the Logic

Finally, one has to check that the vertical and horizontal logic holds true. The following questions are helpful in doing this:

- ▶ Is the objective statement clear?
- ▶ Have the expected results been clarified with realistic and clear indicators?
- ▶ Is the source of evidence needed to verify the status of the indicators available?

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