



PM4NGOs

A quick Guide to the

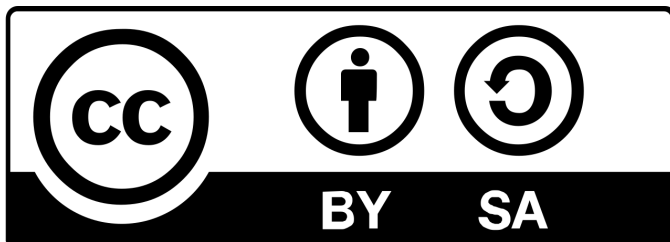
PMD Pro

Project Management for
Development Professionals

Publisher

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Introduction

Changing the world through projects

Development organizations manage their work through projects. Their offices are staffed by Project Officers, who manage project teams. The communities they serve trust the projects to deliver benefit.

However, development organizations tend to focus on the technical programmatic areas of their projects and hire specialists who are then asked to manage projects and lead project teams. It is not as common, however, to find that they have extensive experience and skills in the area of project management.

The PMD Pro - Project Management in Development for Professionals - was established to improve development professionals project management capacity and to provide common standards, processes and tools. While good project management principles are universal, the PMD Pro builds on established methodologies to provide a practical guidance to running development projects.

This pamphlet is a brief introduction to PM4NGOs' Guide to Project Management for Development Professionals (PMD Pro), which is for:

- Project Managers and team members who are new to project management;
- Project Managers and team members who are new to the development sector;
- Development sector professionals who intend to pursue professional credentials in project management;
- Consultants/contract staff operating in the development sector.

How the Guide is organized

The Guide to the PMD Pro is organized into four main sections:

- #1 Projects in the Development Sector
- #2 Phases in the Life of a Development Project
- #3 Project Management Disciplines
- #4 Adapting the PMD Pro

The Five Principles of Project Management in the Development Sector

In the Guide to the PMD Pro, readers will find text boxes that refer to key concepts that the PMD Pro identifies as the “Five Principles of Project Management in the Development Sector. Each text box provides a brief anecdote, case study or observation that highlights the importance of incorporating the principles of the design, planning and implementation of development projects.

1. **Project Management is Balanced** – Projects should be managed in a balanced way, applying equal rigor through all of the phases of the life of the project.
2. **Project Management is Comprehensive** - Project management disciplines should be applied to manage consistently and deliberately all the work of the project through the entire life of the project.
3. **Project Management is Integrated** - All aspects of project management should be aligned and coordinated as a means to ensure that all elements of project design, planning, monitoring and implementation run smoothly.
4. **Project Management is Participatory** – The inclusion of a variety of stakeholders in the identification, design, planning, implementation and monitoring of the project helps to ensure transparency, improve quality, increase human capacity and strengthen buy-in at all levels.
5. **Project Management is Iterative** – Revisit and repeat project management processes through the life of the project to confirm that the project designs, project plans and intended results are still relevant. This practice also provides the opportunity to improve their accuracy of existing project estimates and to plan for the next steps in the project.

#1 PROJECTS IN THE DEVELOPMENT SECTOR

Managing Projects is challenging!

Managing projects in the development sector is anything but simple. The operating environments are complex. The challenges are numerous. The project relationships are complicated. And, the cost of failure is high. In short, there is a lot that could go wrong! To succeed, the project manager must proactively and decisively manage these challenges.

You are not alone!

While the challenges confronting development projects are extensive and complex, they are by no means exclusive to projects managed in the development sector. The top three issues are:

1. Incomplete requirements and specifications;
2. Lack of contingency planning for managing risks; and
3. Failure to learn from mistakes.

The common challenges are:

- Delivering project results in the context of time, budget, quality, scope, risk and benefit constraints;
- Developing comprehensive and detailed project plans and managing them through the entire life of the project;
- Managing projects that are often implemented via contractors, sub-contractors and suppliers; and
- Identifying potential risks and establishing processes to avoid and address these risks and ensuring that the intended project benefits are delivered.

Development projects do however have unique characteristics:

- Development projects are responsible not only for delivering tangible outputs, but also for delivering less tangible outcomes related to promoting social change and/or behavior change.
- Development projects are less likely to focus on delivering concrete products as the ultimate goal of the project. Instead, they consider these products as a means that leads to improvements in the well being of the project's target populations.
- Development projects aim to address complex problems of poverty, inequality and injustice.
- Development projects tend to operate in exceptionally challenging contexts (limited resources, high risks, complex procurement networks, unstable political/financial environments, unsafe conditions).
- Project implementation is often managed through a complex array of stakeholder relationships (partner agencies, government ministries, community-based organizations, contractors, global consortia).
- The project approach is often as important as the outcomes themselves (including a high priority placed on participation, rights-based approaches).
- Transferring knowledge and learning to the target population is a priority during each and every phase of the project.

Defining Terms

A **project** is a temporary endeavor undertaken to create a unique product, service, or result. Based on this definition, the **purpose of project management** is to plan, organize and manage resources to bring about the successful completion of specific project goals, outcomes and outputs.

Within the context of project management, the **project manager** is responsible for ensuring the overall success of the project. And yet, while the project manager is responsible for project success, this does not mean, however, that the project manager is personally responsible for completing the project work. In fact, this is seldom the case in the development sector. Instead, the responsibility of the project manager is to work closely with an array of stakeholders to complete the work of the project. It is not unusual for stakeholders within a single project to have different ethnicities, languages, cultures and even nationalities. The challenge of managing groups within this context can be especially difficult.

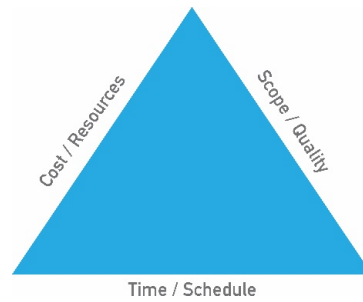
Program management is the process of managing a group of related projects in a coordinated way to obtain benefits and control not available through managing them individually. See PM4NGOs' Guide to Program Management.

Portfolio management oversees the performance of the organization's collection of project and programs.

The Triple Constraint

Projects have a “triple constraint” of:

- Scope/quality
- Cost/Resources
- Time/Schedule



This can be best understood when drawn as a triangle, which should always stay in balance.

The Art & Science of Project Management

The art of project management focuses on the people elements of a project. It requires skills that enable project managers to lead, enable, motivate and communicate. The artistic project manager can direct the team when work challenges shift, realign priorities when the field realities change resolve conflicts when they arise, and determine which information to communicate when and to whom.

The science of project management focuses on the planning, estimating, measuring and controlling of work. The science encompasses the who-does-what-when questions?

A key to a successful project is identifying a balanced project manager who is comfortable with both the art and science of project management.

PMD Pro Project Management Competency Model

While the classification of project management skills into the categories of “art” and “science” is helpful, it is only a first step in identifying the characteristics of a successful project manager.

A more comprehensive project management competency model will help identify the requisite skills of project managers and can then serve as a tool to assess skill levels, identify areas for improvement, and to map areas for career development. While multiple competency models exist for project managers, the PMD Pro model organizes project management competencies into four areas:

- **Technical** – these are often referred to collectively as the ‘science’ behind project management. Can the project manager identify, select and employ the right tools and processes to ensure project management success?
- **Leadership/Interpersonal** – often referred to collectively as the ‘art’ of project management. For example, how does the project manager communicate, inspire, and resolve conflict?
- **Personal/Self-Management** – the project manager's ability to self-manage. For example, can the project manager effectively prioritize, manage time and organize work?

- **Development Sector Specific** – the ability to apply the technical, leadership/interpersonal and personal/self-management competencies in the context of development projects. For example, can the project manager identify, select and employ the right tools and processes that are unique to the development sector?

In addition to these four general competency areas, project managers should also possess the competency to work effectively within the culture of their own organization. Can the project manager navigate his/her specific organization's management framework, organizational culture, business processes/systems and human resources networks? The organization's culture defines its identity (brand) and distinguishes it from other organizations managing similar projects.

While all four-competency areas of project management are critical to ensuring project success, the scope of the Guide to the PMD Pro specifically focuses on the Technical Competency Area of project managers. Sections #2, #3 and #4 of the Guide focus on the processes, tools and mechanisms that can be used to strengthen the design, planning, implementation, monitoring, control and closure of projects. It is undisputable that project managers should also work to strengthen their personal, interpersonal and development sector-specific competencies; however, it is not the goal of the Guide to elaborate extensively on those areas of professional development.

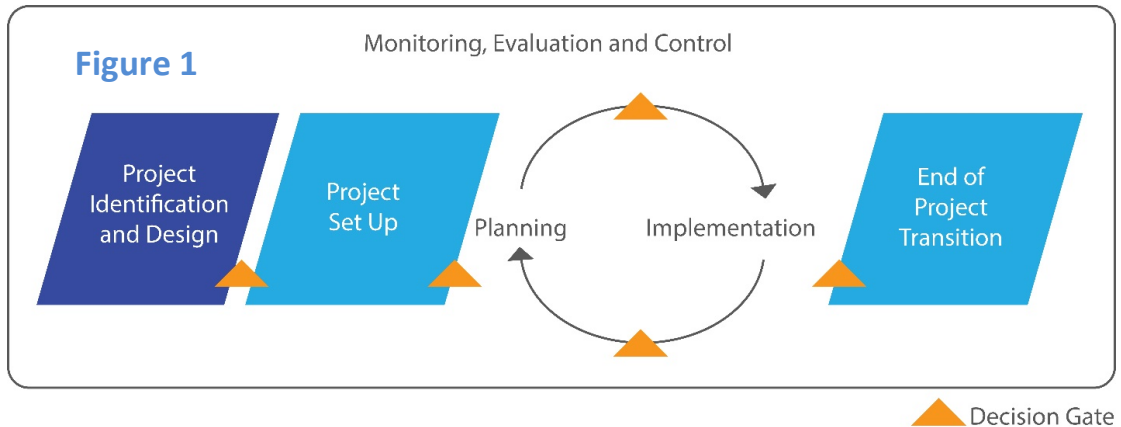
#2 PHASES IN THE LIFE OF A DEVELOPMENT PROJECT

Balanced Project Management through the Project Life

For development projects to succeed, it is critical that the full array of project management competencies be applied in a balanced way through the entire life of the project. To this end, many development organizations have developed Project Life Cycle diagrams, which they use to identify the phases through which their projects pass from beginning to end. Together, these project life cycle phases identify the logical sequence of activities that accomplish the project's goals or objectives.

The exact sequence and wording of project life cycle diagrams can vary considerably between industries and organizations; however, their objectives are the same. By grouping activities into a project life cycle sequence, the project manager and the core team can:

- Define the phases that connect the beginning of a project to its end;
- Identify the processes that project teams must implement as they move through the phases of the project life cycle;
- Illustrate how the project management life cycle can be used to model the management of projects;
- Model how projects work within an environment of 'constraints', where changes to any one constraint will result in consequential changes to the other project parameters.



The PMD Pro Project Phase Model

While recognizing that numerous project life cycle diagrams exist among organizations in the development sector, the PMD Pro subscribes to its own six-step project phase model (see Figure 1 above).

The PMD Pro Project Phase Model was designed with the express intent of ensuring that the model is balanced and comprehensive. Balance and comprehensiveness in the project model are especially important within the context of the development sector. Too often, development organizations have placed an especially strong emphasis on project Design, Monitoring and Evaluation (DM&E); but this emphasis has sometimes overshadowed the importance of other phases in the life of the project.

Clearly, strong DM&E is necessary. However, it is not sufficient to guarantee project success. A project must not only invest in strong, coherent project DM&E, but must also commit to investing similar levels of resources and effort in all the phases in the life of the project.

In the PMD Pro Project Phase Model, for example, the Project Monitoring, Evaluation and Control activities are continually present in the background of the project. However, they are only one component of the six-phase Project Phase Model that includes:

- **Project Identification and Design** - It is during this phase that the project teams identify and define needs, explore opportunities, analyze the project environment, and design alternatives for project design. The decisions made during the Project Identification and Design Phase set the strategic and operational framework within which the project will subsequently operate.
- **Project Set Up** - It is during this phase that the project is officially authorized and its overall parameters are defined and communicated to the main project stakeholders. It is also during this phase that the project team establishes the high-level project governance structure.
- **Project Planning** – Starting from the documents developed in earlier phases of the project; during the planning phase the team develops a comprehensive and detailed implementation plan that provides a model for all the work of

the project. This plan is revisited throughout the life of the project and updated (if necessary) to reflect the changing contexts of the project.

- **Project Implementation** – The day-to-day work of project implementation is to lead and manage the application of the project implementation plan: Leading the team, dealing with issues, managing the project team and creatively integrating the different elements of the project plan.
- **Project Monitoring, Evaluation and Control** – This phase extends through the entire life of the project and continually measures the project's progress and identifies appropriate corrective actions in situations where the project's performance deviates significantly from the plan.
- **End of Project Transition** – This phase includes implementing all the transition activities that need to occur at the end of a project, including (but not limited to) confirming the deliverables with beneficiaries, collecting lessons learned, and completing the administrative, financial and contractual closure activities.

While the PMD Pro Project Phase Model gives the impression that the phases are discrete and sequential, in practice they interact and overlap. As projects progress through the six phases, it is recommended that the project team revisit the justification and planning of the project through a series of formal decision gates (represented by triangles in the PMD Pro project phase model in Figure 1).

Phase 1: Project Identification and Design

All projects begin as an idea – a need or opportunity that is assessed, analyzed, and ultimately developed into a project, which is managed through the project life cycle. The first phase of the project is therefore Project Identification and Design.

The work completed during this phase can be summarized:

- Collecting data;
- Analyzing data; and
- Identifying the project intervention logic.

The outputs of this phase, depend on the project context, but could consist of the following documents:

- **Project Concept Paper.** This document is presented to internal stakeholders to internally authorize exploratory assessment and analysis activities and to receive feedback on potential proposal development.
- **Project Logical Framework (LogFrame)** is an analytical tool used to plan, monitor and evaluate projects. It derives its name from the logical linkages set out by the planner(s) to connect a project's means with its ends.
- **Expression of Interest.** This document is submitted to potential donors to obtain a green light from key external stakeholders. This document is intended to be developed in a relatively short time period using limited resources, and is intended to generate a conversation about the high-level design of the project, and to receive feedback for the project BEFORE

considerable resources are devoted to developing a more expansive project proposal.

- **Project Proposal.** In this step a formal document is developed to receive approval for a request for funding for a project. This document should be clear and more precise in describing the project’s CSSQ (cost, scope, schedule and quality). The format of the project proposal development process can vary considerably, depending on the size of the project and the donor requirements.

Collecting Data

The first step in determining whether you are “doing the right project” is to collect data. The purpose of this data collection is to broadly explore a wide number and variety of issues, providing information which, when analyzed, will inform priorities and identify interventions that will address the challenges in a target area.

Identifying Project Needs

As part of this broad exploration process, the project team will need to collect data that identifies community needs in the potential intervention area. However, the data should not be limited solely to examining issues related to community needs. Other topics to explore should include the present state of service provision, the existing strengths within the community, an examination of stakeholders present in the intervention area and more.

One of the challenges when collecting data is that the process can be highly subjective. A technique called “triangulation” can be used to facilitate validation of data through cross-verification from more than two sources.

One way to triangulate the process of needs identification is to use an approach introduced by American sociologist, Jonathan Bradshaw, who believed that needs assessments should explore four types of need in a community and that the presence of all types of needs would indicate a “real” need.

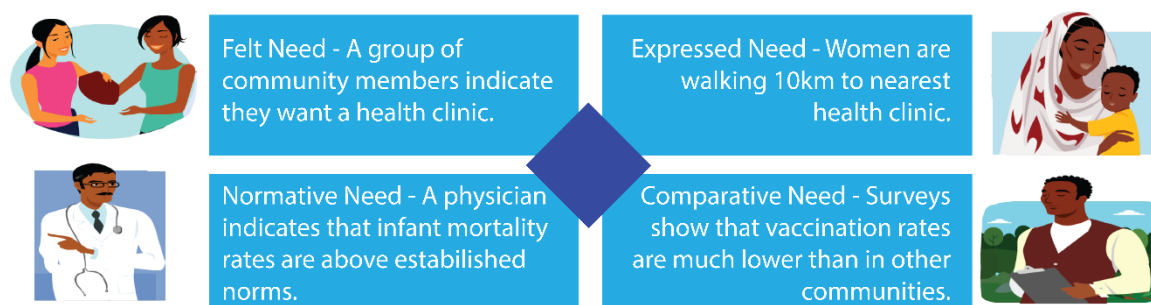


Figure 2: Triangulating Needs Using Bradshaw’s Classification

Bradshaw’s four categories of social need (Figure 2) included:

- **Normative needs** – compare the current situation to a set of professional or expert standards;

- **Comparative needs** – compare the current situation with the needs of others;
- **Felt needs** – focus on the thoughts and reams of the community itself;
- **Expressed needs** – are inferred by observation of the community’s actions.

Types of Data

The data collection process, however, is not limited solely to defining needs. To fully understand the project context, the project team will need to collect data regarding a number of areas related to the project environment.

Three types of data may be collected, although care should be used to select the most appropriate and cost-effective tools and approaches to collect information:

- **Secondary data** – information from published or unpublished sources;
- **Primary quantitative data** - collecting data through surveys;
- **Primary qualitative data** – in contract to quantitative data, the qualitative approach seeks to capture participants’ experiences using words. This gives the data richness, creates openness and stimulates people’s individual experiences.

Analyzing data

In ordering and organizing the raw data, there are two broad categories of analysis:

- **Current State Analysis** – using various analysis tools to understand the status, condition, trends and key issues affecting people’s livelihoods.
- **Future State Analysis** - once the current state analysis is complete, the future state analysis looks at how the project will improve the livelihoods, ecosystems or institutions of the project participants.

Identifying the Project Intervention Logic

Now that the data collection and data analysis processes are complete, the next step is to begin to identify the project logic. One of the principle tools used to establish the logic of development project is the **logical framework (LogFrame)** matrix. The logical framework is an analytical tool used to plan, monitor and evaluate projects. It derives its name from the logical linkages set out by the planner(s) to connect a project’s means with its ends.

While there are many versions of project logical frameworks, the PMD Pro subscribes to a four-level logical framework model making up the vertical part of the matrix:

1. Activities are actions taken through which inputs (financial, human, technical, material and time resources) are mobilized to produce the deliverables (training, constructing, etc.)
2. Outputs are tangible deliverables resulting from project activities.
3. Outcomes are what the project expects to accomplish at the beneficiary level

4. Goals are the highest-level desired end results or impacts to which the project contributes.

The vertical and horizontal logic of the LogFrame is shown in Figures 3 and 4.

Figure 3: Vertical Logic of the LogFrame

	Project Description	Indicators	Means of Verification	Assumptions
Goal		If the OUTCOMES occur; Then this should contribute to the overall GOAL		
Outcome(s)		If the OUTPUTS are produced; Then the OUTCOMES can occur		
Outputs		If the ACTIVITIES are conducted; Then OUTPUTS can be produced		
Activities		If adequate RESOURCES / INPUTS are provided; Then the ACTIVITIES can be conducted		

Figure 4: Horizontal Logic of the LogFrame

	Project Description	Indicators	Means of Verification	Assumptions
Goal				If the horizontal logic is followed AND assumptions hold true, then the project will likely succeed.
Outcome(s)				
Outputs				
Activities				

Managing Project Decision Gates

Project teams want to avoid the “perfected, but rejected” scenario, where organizations have already spent thousands (and even tens of thousands) of dollars on project identification and design activities, but the project ultimately lacks the

support of key stakeholders (inside the organization, in the community, among government staff, or from the intended donors).

One of the “best practices” used to manage this risk of is by subscribing to a decision gate process that consists of a series of authorization points at various stages of the project, within phases or at phase boundaries. By using decision gates, organizations identify a series of points in the project that require a decision to either proceed with the next phase of the project, modify the Scope, Schedule or Budget of the project or end the project outright. Each successive decision gate builds on the work that was developed in the previous stage.

Phase 2: Project Setup

Establishing the Project Governance Structure within which project decisions are made. Depending on project size or circumstance this could be an individual Project Sponsor or a Project Board, usually made up of an Executive, a Senior User and a Senior Supplier. A robust structure clarifies who has authority on decisions and tolerances, and where the accountability lies for the success of the project.

Officially authorizing the start of the project by the project governing body. Approval should be documented through the development of a project charter, which provides a high-level description of the project in terms of purpose, deliverables, estimates of time and cost, risks, tolerances and how changes will be managed. The project charter should be seen as a “living document” being updated and signed if there are major changes to the project.

At this point the project manager should set up a **Risk Register** and a **Lessons Learned Log**, and start using them.

Communicating the project launch to stakeholders is important to ensure a consistent understanding before project implementation begins. The project charter is ideal for sharing with a large community, although it would need to be amended if it contains any sensitive information. Articles in newspapers, press conferences and field visits etc. can be used to communicate with the larger community.

Phase 3: Project Planning

Starting from the documents developed in earlier phases of the project; during the project-planning phase the team develops a comprehensive and detailed **Project Implementation Plan** (or project plan for short) that provides a model for all the work of the project. This plan is revisited throughout the life of the project and updated (if necessary) to reflect the changing contexts of the project.

The plan should be balanced and cover the work of all six phases of the project. There should be planning for project setup, project implementation, monitoring and evaluation, revision of the plan if changes occur, and project transition. The plan should be comprehensive in covering the how the management and

coordination will work for the project in these key areas:

- Scope;
- Time;
- Justification;
- Stakeholders;
- Risks & Issues; and
- Resources.

The plan should be integrated, taking full account of project constraints.

The plan should be participatory ensuring that stakeholders are involved in the planning process as far as possible.

The plan should be iterative, being a “living document” which evolves as the project proceeds and as changes take place.

Phase 4: Project Implementation

The day-to-day work of project implementation is to lead and manage the application of the project implementation plan. This task can be relatively simple, or can become extremely complex, depending on the nature of the project.

As in all project management, success during implementation is partially an art (managing people, leading teams, communicating with clarity), but it is also a science. In its simplest form, the responsibility of the project manager is to implement the project plan. However, upon closer inspection, it becomes clear that the project manager must apply a number of technical skills to succeed during implementation. These skills include managing issues, people and internal controls.

- *Managing Issues.* An issue is an unresolved decision, situation or problem that will significantly impact the project and that the project team cannot immediately resolve. Issues management consists of having a process for identifying these problems and managing them until they are resolved. Resolving issues is frequently beyond the authority of the team. However, even if an issue needs to be escalated to the next level or delegated to another person to resolve, it still needs to be tracked by the project manager.
- *Managing People.* There are the project managers who are especially effective at motivating team members, communicating vision, empowering staff, recognizing achievements, listening, leading by example, resolving conflicts and building trust. These are the “soft” skills and are extremely important to project success. There are also “hard” skills involved in acquiring staff, developing project staff, conducting performance assessments and establishing team communication norms.
- *Managing Internal Controls.* Systems should be established to provide reasonable assurance regarding the responsible use of project assets. Areas that benefit from internal controls include human resources capacity and systems, procurement, financial, inventory, contracts and agreements, infrastructure, security protocols, fleet management and information management.

Phase 5: Monitoring, Evaluation and Control

Even well designed and fully resourced projects will face challenges. These can come at any point in the life of the project, and the project team must work to continually revisit the design, planning and implementation to confirm they are valid and whether corrective actions need to be taken when the project's performance deviates significantly from its design and its plan. This is the purpose of the Project Monitoring, Evaluation and Control Phase, which extends through the entire life of the project.

- *Monitoring* is a continuous review of project progress at the activity and outputs levels. It helps to identify necessary corrective action.
- *Evaluation* tends to focus on tracking progress at the higher levels of the logical framework – i.e. project outcomes. Evaluations tend to explore questions like, “Is the project successful at achieving its outcomes?”

The **Project Implementation Plan** will contain a **Monitoring and Evaluation Plan**, which identifies the system for tracking and measuring project progress, performance and impact.

The project logical framework (**LogFrame**) is the first step in developing the full monitoring and evaluation plan for the project. The indicators and means of verification that is included for the logical framework will ultimately become the building blocks for the full monitoring and evaluation plan of the project. Three evaluation approaches that are used within the development section are final evaluations (often mandated by a funding agency or organisation policy), mid-term evaluation, and ex-post evaluations.

For project control it is important to realize that change will occur during the project as circumstances change and issues arise. Project changes must be:

- Managed through a formal change management process;
- Analyzed to ensure that the implication of those changes are thoroughly thought through;
- Documented to illustrate their complete impact on all the integrated elements of the project.
- Communicated to key stakeholders.

Project tolerances are a key part of being able to work autonomously as a project manager. Having a tolerance means the project manager has a certain amount of flexibility with regard to project constraints. In practice, this means that the project can be over a bit or under a bit and not have to continually go back to project board (or sponsor) to request approval for project changes. Tolerance values should be agreed with the project board or sponsor during the project set up phase.

Tolerances can be in any of the following areas:

- *Time Tolerance* - the amount of time by which the project completion can be later or earlier than the planned date.
- *Cost Tolerance* - the percentage, or a cash amount, by which the project can be over or under the planned budget.

- *Scope Tolerance* is measured as an agreed variation from the product description, and any potential variation should be documented in the product breakdown structure.
- *Risk Tolerance* provides a benchmark for which risks you should be escalating to the Project Board.
- *Quality Tolerance* ranges that define acceptable performance for a product, documented in the product descriptions.
- *Benefits Tolerance* - the ranges of acceptable performance of the project at the outcomes level.

Phase 6: End of Project Transition

A project, by definition, is a temporary endeavor, having a defined beginning and end (usually constrained by date, but possibly by funding or deliverables). The temporary nature of projects differentiates them from normal business operations of an organization (or 'on-going operations', which is repetitive, permanent or semi-permanent functional work producing products or services). In the development field, however, one often finds projects that have been in operation for years – with one phase of the project continuing the work of the previous phases. This observation underscores the reality that the end of a project in the development sector is often more accurately characterized as a transition phase rather than as a strictly defined project closure. In practice, there are four end-of-project transition scenarios that exist for development projects.

- **Termination.** The project is formally ended and all project closure activities completed (termination could also include 'phasing over' or transferring the project activities to a local partner, institution or community).
- **Extension.** Negotiation of added time to finish the project (could be at additional or 'no' cost).
- **Expansion.** Identification of elements for replication with a new target area or population.
- **Redesign.** Continuation via a new phase with modified interventions or activities.

There are five activities associated with this phase:

- **Manage the End-of-Project Strategy.** Your project plan should include an end of project transition plan. The development sector considers transition especially important because of their concern that impacts be sustained after the project has ended. One tool used to plan for the ongoing sustainability of the project is the **Transition Planning Matrix**. See the full guide to PMD Pro.
- **Verify the Project Scope and the Accept Deliverables.** The project manager should contact the internal and external stakeholders to verify that the scope of the project has been accomplished and that the deliverables are accepted. Make sure that they are satisfied with the overall outcomes.
- **Complete Administrative, Financial and Contract Closure.** If the project were to be audited two years following closure, what would happen? Do systems exist to ensure that the administrative, financial and contractual elements of project closure are complete? These systems are critical not only because

they help avoid problems with project audits, but they also reduce the risk that there will be disputes with suppliers, employees, and donors regarding the status of accounts.

- **Complete End of Project Learning.** As the project enters the End of Project Transition Phase, it is important to ensure that the lessons learned related to the project are adequately detailed, and are filed and easily accessible (through the Lessons Learned Log established in Project Set Up) or through an “After Action Review”. Furthermore, it is critical that the project manager distribute the lessons learned to those who can benefit from them otherwise the wheel will be constantly reinvented. Donors are often interested in ensuring that learning is disseminated throughout the sector to ensure that new projects benefit from learning generated by other projects they have funded. Nowadays, NGOs often publish evaluation reports, and databases exist which include thousands of evaluation reports from many different organizations.
- **Celebrate Accomplishments.** Just as it is important to acknowledge the beginning of a project through launch activities, a project manager should also appropriately celebrate and formally acknowledge the end of project transition by recognizing the efforts of team members; acknowledging the contributions of key stakeholders to the project; and expressing appreciation to individuals and groups who were critical to the project success. Recognition of the project accomplishments within the organization and to the outside world may also help facilitate positive public relations and prepare the way for future business opportunities.

#3 PROJECT MANGEMENT DISCIPLINES

There is no single road map to managing projects. Each project is unique with its own objectives, context; resources; relationships; and challenges. However, successful project management demands that all project teams comprehensively and actively apply a diverse set of project management disciplines through the entire life of the project. The PMD Pro identifies six project interacting management disciplines, together with the tools and mechanisms to manage them, that are especially important when managing projects in the development sector.

Discipline 1: Scope Management

A well-defined project scope will not only tell the project team where it is going, but it will also explain how the project intends to get there. Scope management has two components critical to project success:

- **Product scope** – Includes all of the required deliverables of the project, meeting the agreed specification. (What is going to be delivered?)
- **Project scope** – Includes all of the work required to deliver the product scope. (How will deliverables will be created and delivered?)

The following problems may arise:

- **Unclear Expectations:** Stakeholders need to be 100% clear about the scope so as to ensure that they do not have incorrect or unrealistic expectations about what products/services will be delivered.
- **Inaccurate Estimates:** Errors in scope definition often result in schedule slips and hence finally cost overruns.
- **Scope Creep:** Failure to control the boundaries of project deliverables leads to a scope creep – a principle cause of project delays and potentially “never ending” projects.

The **Work Breakdown Structure (WBS)** is the principle tool that project managers use to define project scope. The arranges the project scope in an outline or hierarchy of ‘work packages.’ The format of the WBS normally takes assumes either a graphical or indented (written) format – it’s sometimes a good idea to create both with an appropriate level of detail.

The major categories of work in the WBS are often consistent with the contents of the project logical framework. However, the WBS will include a level of comprehensiveness and detail that is often absent from the logical framework. There might be additional categories of work included in the WBS that were not included in the logical framework. The WBS is also intended to provide the level of specific detail that is often missing in the logical framework.

A well-constructed WBS can be used to:

- Guide the process of activity identification and sequencing;
- Provide a basis for:
 - Accurate estimates of project duration;
 - Accurate estimates of project cost;
 - Accurate resource estimates (vehicles, people, supplies, building materials);
- Identify required departmental, subcontracting, supplier services;
- Communicate and agree the product and project scope with the project’s stakeholders;
- Show the hierarchy of work needed to complete a project and indicate the interfaces between them;
- Delegate the work packages to project team members, implementing partners or suppliers.

Discipline 2: Time Management

Delivering projects on time is one of the biggest challenges faced in project management. To successfully manage time, project managers require the ability to develop accurate schedules and to implement them through the life of the project. The steps in planning process include the following:

- **Activity Definition** – Starting from the WBS, the project team develops an activity list, which comprehensively records all of the activities within the scope of the project (or within the scope of a specific work package of the project) that

need to be performed to produce the project deliverables.

- **Activity Sequencing** – Next, the project team develops a network diagram, which graphically represents the sequences, relationships and dependencies between the WBS's activities.
- **Activity Resource Estimating** – Estimating the type and quantity of resources available/required to perform each schedule activity. Resources are one of the central factors influencing the project duration.
- **Activity Duration Estimating** – Estimating the time required to complete project activities, revisiting the network diagram. It is now possible to identify the project's critical path (the minimum time needed to complete project activities) and the project's float or slack (the amount of time a task can be delayed without impacting the project schedule).
- **Schedule Development** – Creating a project schedule based on activities, sequences, durations, resources and schedule constraints. Within the development sector, the preferred tool for project schedule development is the Gantt Chart. Planning and implementing projects is made easier if it is viewed as small manageable items where the dependencies are visually illustrated, parallel processes are apparent, and the overall schedule is portrayed graphically. A Gantt chart uses bars to graphically represent the schedule of project activities, including their start date, end date, and their expected durations.
- **Managing the Project Schedule** - Project managers should monitor their schedules regularly to ensure the project calendar remains on track. If the project schedule begins to vary, the project team will have a number of options through which the project can get back on track. For example, deadlines can be delayed, or the scope of the project can be reduced. Activities can be completed in parallel ("Fast tracking") or additional resources can be found to accelerate progress ("Crashing").

Discipline 3: Project Resource Management

One of the most important and most challenging jobs of a Project Manager is to effectually and efficiently organize all the resources involved in a project. It goes without saying that the complexity of this task will depend heavily on the scope and nature of the project at hand. But in all cases, it is A CRITICAL FACTOR BEHIND SUCCESS OR FAILURE. The PMD Pro focuses on three of the Project Resource Management areas: **finance management, supply chain management and human resources management**. These three form the core of project support services.

Finance Management

Development sector organizations usually rely on individual or organizational donors to fund programs – and they expect donations to be well managed although the Project Manager may not have full control over the financial processes. Skills need to be developed in the following areas:

- **Developing Budgets** – The key to accurate budgets is to assuring that they are comprehensive (covering all items) and detailed (drilling down for precise

costs). Budgets should include transaction costs and shared services costs. Presentation of accounts and time period (multi-year/lifetime or annual) will usually follow donor guidelines.

- **Activity Based Budgeting** focuses on identifying costs of activities (developed during scope planning) that take place in every area of a project and determining how those activities relate to one another – including direct and indirect work. Proponents see activity based budgeting as more realistic than other budgeting approaches, as it involves understanding how much activities will actually cost. If a Project Manager is able to develop a complete (both comprehensive and decomposed) list of activities along with cost estimates for activities, then a budget will prove accurate. Activity based budgeting also offers more opportunity for line staff to get involved, making it more likely that a budget will be accurate.
- **Identifying Cost Estimates** - Estimating will never be a precise science but it can be accurate enough to support good project decisions. A phased-approach is recommended. Three approaches are considered best practice:
 - **Top down estimates** start with a global estimate for the project cost and then assign percentages for each project element.
 - **Bottom-up Estimates** are made by estimating the cost of each task, taking advice where available, and totaling the cost.
 - **Parametric Estimates** use historic data.
- **Monitoring Budgets and Expenditures** - To best monitor project costs, it is preferable to monitor the cost of the work completed during a time period. Rather than do a simple “pro-rata”. **Earned Value Analysis** is a tool that compares the planned and actual cost for each task that has been performed and ALSO compares the rate of progress on each task to what was scheduled in the project plan. This means that in order to conduct Earned Value Analysis the Project Manager will need a more complete set of data that combines elements of both the project budget AND the project calendar.

Supply Chain Management

Managing the supply chain can be challenging in development projects. PMD Pro defines three components in supply chain management.

- **Procurement Management** – Identification of what materials and services are required from whom in a Procurement Plan.
- **Logistics Management** – Planning, implementing and controlling the flow of materials in a timely manner and maintaining a project inventory.
- **Asset Management** – Procured items are monitored, maintained and ultimately disposed of after a defined lifetime. A lower threshold for fixed assets may be defined (USD \$1000)

Human Resources Management

This is both an art and science. Management tasks includes acquiring project staff, identifying assignments, documenting organizational charts, developing project staff, conducting performance assessments.

Discipline 4: Risk Management

Risk is the potential effect of uncertainty on project objectives. Risks are assessed by probability and impact. Issues are risks that have become a reality. Risks are managed through a four-step process.

- **Risk identification** – define project risk categories such as commercial, organizational and political etc. Identify specific risks that fit into each of the risk categories. Note that risks can be either “negative”, which could harm the project, or “positive”, which could give the project a potential opportunity.
- **Risk assessment** - Risks are ranked according to their probability and impact. Next the project team needs to work with key stakeholders to identify their risk tolerance levels to identify what risks are acceptable and which of them need to be actively managed. Risks are then ranked by priority and potential impact on a scale of Low, Medium or High.
- **Risk response planning** – If the project decides to actively manage a risk the response strategies are avoidance, transference, reduction/mitigation and acceptance. It is good practice to have a Risk Management Plan.
- **Risk monitoring and control** – It is recommended that a Risk Register be established as early in the life of the project as possible. Risks should be regularly reviewed at risks review meetings to identify any change in their status, or if they turn into an issue.

Discipline 5: Project Justification Management

Strong project justification management helps demonstrate why a project makes solid sense to the organization, the donor and the beneficiary communities.

Successful project managers need to have the skills and competencies to:

- Identify the justification for their projects;
- Communicate the justification to a larger audience;
- Track the project’s progress in achieving the value that justified its existence.

Problem-based or Assets-based Needs Identification - In the context of the development sector, project justification exercises usually start with an analysis of need. Furthermore, as the project team begins to collect data concerning the preliminary project design, one of the decisions that should be made is whether the project will define needs based upon a “problem-based” approach or an “assets-based” approach.

- **Problem-based Approach:** Define the problem; fix what is broken; focus on the negative.
- **Asset-based Approach:** Search for solutions/assets that already exist; reinforce what is working; focus on the positive.

Moving from Problems to an Intervention Strategy - Much of the work in justification management takes place during the first phase of project, Identification and Design. If at that point the project team chooses to pursue a problem-focused approach to defining needs, most frequently the next step in the justification process

is the development of a **problem tree**. A “starter problem” is identified and the tree is built by identifying causes and effects of the starter problem. The next step is to develop an **objective tree** that begins to identify the potential interventions that could take place to fix what is broken in the problem tree. It can then be decided which elements of objectives tree will be included in or excluded from the scope of the project. These criteria will help the project team and stakeholders make concrete decisions regarding where the project intervenes, the services it provides, who will be served and how the services are provided. See the full guide to PMD Pro for examples of a **problem tree** and an **objective tree**.

Discipline 6: Stakeholder Management

Development projects are complex and impact an array of stakeholders - individuals, groups and organizations who are actively involved in a project, or whose interests might be positively or negatively affected by execution or completion of the project. To succeed, the project team needs to develop the discipline to manage stakeholder relationships. There are four components of a strong stakeholder management system.

- **Stakeholder Identification** – The PMD Pro recognizes six categories of stakeholders below. Note that categories may overlap and stakeholders do change with time:
 - Users will directly benefit from the products/services of the project.
 - Governance Stakeholders such as the Project Board, Auditors, Regulators and Funders.
 - Providers actively participate in the work of the project.
 - Influencers have the ability to change the direction of the project.
 - Dependents are typically other projects who need one of the project deliverables.
 - Sustainers support the products after the project has completed.
- **Stakeholder Analysis** explores stakeholders’ interests and maps the stakeholders’ influence. Two tools are available document these: **Venn Diagrams** and a **Stakeholder Analysis Matrix**. See the full guide to PMD Pro.
- **Stakeholder Engagement** - Constructing a **RACI** chart can assist with managing a network of stakeholders.
 - A Responsible includes those who do the work to achieve the task. For each task there is typically one role that is the lead in completing the work, although others can be delegated to assist.
 - An Accountable must approve (sign off) the work that the Responsible person provides. There must be only one Accountable person specified for each task or deliverable.
 - Consulted are those whose opinions are sought; and with whom there is two-way communication.
 - Informed are those who are kept up-to-date on progress, often only on completion of a task or deliverable; and with whom there is just one-way communication.

- **Stakeholder Communication** – Good communication is both an art and a science. There needs to clarity with the “what”, “why”, “who”, “how” and “when” of communications. Several questions to ask:
 - Which mechanism or vehicle will increase the likelihood that the message will be actually received, understood and acted upon?
 - How much information will be included and at what level of detail?
 - Which mechanism is most appropriate for the type of message?
 - Which mechanism does the stakeholder prefer?
 - What level of interaction is required (one way or two ways)?It is also important to differentiate between regular, or ongoing, communications with project team members, sponsors, and other key stakeholders on a regular basis. This information should be recorded in a communications plan.

#4 ADAPTING THE PMD PRO

This section looks at how to adapt various tools and techniques that have been presented in order to get them to work for the Project Manager and project implementation team.

Fundamentals of Adapting

Simply applying tools and techniques without thinking about context, resources, relationships and challenges will, at best, contribute to a robotic and “template-driven” project. Implementing PMD Pro should involve assessing available tools and techniques, deciding which will be most useful in a particular situation, thinking through how these tools can be integrated into organizational processes and systems, and engaging with their organizations.

Factors to consider when adapting PMD Pro

No project exists in a vacuum. Projects “live” within programs and portfolios. In addition, projects are managed within the context of organizational systems and donor structures. In one sense, these are the broader operating environments for projects. As a result, since all these factors impact the performance of projects, they should be taken into consideration when adapting the PMD Pro to projects.

- **Program considerations** - As stated earlier in this Guide, programs consist of a group of related projects that are managed in a coordinated way to obtain benefits and control not available through managing them individually. Program timescales are longer and the outcomes are usually more complex with each individual project designed to make a contribution to goals. Clearly, in a well-managed program, there will be consistency of tools, methods and approaches. Some NGOs have a Program Management Unit or Office (PMU or PMO) whose role is to ensure consistency of approaches, standards, capacity building, toolkits, and operating manuals. In such situations, Project Managers and their teams need to align with program unit guidelines, tools and approaches.

- **Systems considerations** - A Project Manager rarely gets the opportunity to influence the choice of organizational systems. Regardless, the Project Manager must make sure that the flow of information from and to the organization meets the needs of the project team – for example in financial reporting and currency policy.
- **Size, Complexity and Risk considerations** – These factors are too often given insufficient attention particularly in risk planning and management, and project governance.
- **Learning and Competency considerations** - While the Project Manager is responsible for ensuring that staff members and implementing partners have the right competencies, including knowledge, attitudes and skills, the manager shouldn't expect to build capacities in to address all weaknesses right away. A key part of adapting the PMD Pro will be assessing the current level of staff and implementing partner competencies and then promoting learning to increase capacities where gaps are identified. A **spider diagram** can be used to illustrate gaps between current and desired competencies.
- **Performance considerations** - The Project Manager is not only responsible for ensuring that project staff become increasingly competent but, of ultimate importance, that on-the-job performance contributes to the organization's targeted impacts. A PMD Pro course must not be seen as a "one-off" event but should be the start of a dynamic process that transfers learning into improved performance and, most importantly, contributes to continuous project improvement.

In Summary

Adapting PMD Pro, as detailed above, is indeed essential. However, one warning must be heeded: A Project Manager's job should NOT be reduced to a set of rigid rules that are applied thoughtlessly across each and every project, program or portfolio. Remember, as stated earlier in this Guide, that Project Management is as much an 'art' as a 'science'. There will be circumstances where a PM tool or technique could be used but, for any number of good reasons, might NOT be the smartest choice. In other words, being too enthusiastic in requiring mandatory and uniform adoption of PM tools and techniques across all projects, programs or portfolios could be a huge mistake. Each and every Project Manager must learn to be disciplined and thoughtful -- becoming proficient at analyzing each individual project before carefully and collaboratively selecting and adopting the best from PMD Pro.

Next steps

We hope you now have a good understanding of the basics of project management for development professionals. If you are an experienced or aspiring project manager you should now study the full guide to PMD Pro. It provides important detail with lots of practical advice of how to run development projects in the real world. It's an essential guide and reference document for project managers, downloadable for free from the PM4NGOs website at <http://www.pm4ngos.org>.