

# Project Information Management

**PROJECT MANAGEMENT FOR  
DEVELOPMENT ORGANIZATIONS**



# **PROJECT MANAGEMENT FOR DEVELOPMENT ORGANIZATIONS**

A methodology to manage development projects for international humanitarian assistance and relief organizations

© PM4DEV 2016

Our eBook is provided free of charge on the condition that it is not copied, modified, published, sold, re-branded, hired out or otherwise distributed for commercial purposes. Please give appropriate citation credit to the authors and to PM4DEV.

Feel free to distribute this eBook to any one you like, including peers, managers, and organizations to assist in their project management activities.

### INTRODUCTION

---

“If you fail to plan, you plan to fail.”

“.. A major weakness is the ability of project staff to utilize their logframe for designing a coherent and integrated, overall information system, where a manageable and limited number of feasible information activities are planned, which together will ensure that effective effect and impact level monitoring will occur. It is typical for projects to end up collecting too much rather than too little information. Frequently though, much of this information is not relevant to monitoring the results and impacts for which the project is accountable, and that which is, is not collected sufficiently reliably or regularly. By restricting the number, but improving the quality and reliability of their major information gathering activities, projects will much improve their information systems.” CARE International EDIAIS Case Study

### **Project Information Management Plan**

Detailed planning is critical to the development of usable, high quality information deliverables that meet the needs of internal and external information users. The project team needs to discuss the content and structure of the overall project information plan. In this plan, the team will analyze the purpose, audience, design issues, media and technology constraints, and development environment for the project. The overall project information plan also includes an initial specification for each individual information output.

The Project Information Management Plan is a document that defines the actions and responsibilities to manage project information. Developing a plan is an essential step in determining the effort and time that will be required to collect and distribute project information. Management of information is a critical component in the overall management of a project. A project's ability to provide accurate, timely information to a variety of audiences may significantly affect the relationship the project has with its staff, management, beneficiaries of the project and outside funding agencies. In addition, the quality and accuracy of information reported to donors and other governmental entities can affect a project's funding, a project's credibility and the public's perception of a project.

## Project Information Management

A project information management strategy should be developed which will specify how information is created or collected, maintained, reported and stored. This strategy and the project's information management system should be designed to provide answers to two basic questions:

- Is information being collected, processed and stored?
- Is information being reported and distributed appropriately?

All projects have an information management system; it may be informal and undocumented or formal and documented.

Management of project information should be incorporated into the project's comprehensive information management system which includes all of a project's information needs. A project's information management system should address the use of both technological and human resources.

### **Information Management Plan**

A successful PMIS usually requires creation of a formal, documented information management plan. Elements of such a plan describe:

1. Information Requirements - What information must be available and to whom?
2. Information Collection - How will information be collected?
3. Information Analysis - How will the information be edited, tested and analyzed?
4. Reporting Information - How will the information be disseminated?
5. Historical Information - How will historical information be maintained?
6. Access to Information - How will information be secured from unauthorized access?
7. Personnel - The roles, responsibilities, qualifications and training of the personnel necessary to implement the plan
8. Technology - The technology necessary to support the plan's goals and objectives
9. Internal Controls - The internal controls necessary to ensure the plan is working

Establishing a written plan can help a project maintain control over its information management system. It provides a framework that can be useful to a project in the process of achieving its goals.

## Project Information Management

Creating an information management plan is not a one-time task, as the maintenance of the plan is a dynamic process. The plan should be constantly revised as circumstances dictate to incorporate a changing environment and to address existing problems. For example, the internal controls established by the plan may indicate that some parts of the plan are not working. Also, information and technology needs change over time and the available technology changes. With a documented plan, improvements or changes can be identified and readily incorporated into the system.

As an element of this dynamic process, the information management plan and all subsequent changes should be made available to all stakeholders affected by the plan. A project should encourage those who create and use information to become involved in correcting and improving the project's information management system.

### **Defining the Information Requirements**

To develop an information management plan, a project must first determine its information needs. All information needs are determined by the types of information it must maintain and the users who require access. A project's best interests are served with a thorough understanding of the needs of all internal users and as many external users as possible (other agencies, the public, etc.). Such identification allows for customization of the plan based on specific requirements.

A project's data needs are dictated by:

- Legal and regulatory requirements imposed by donor and local governments.
- Requirements imposed internally by headquarters and regional management.
- Beneficiary and partner demands for information
- Internal operations

Each of the above areas should be examined in detail to specify the project's information needs. In this examination, consideration should be given to both short-term and long-term needs and both regular on-going and temporary needs.

These requirements should be gathered from beneficiaries, partners, government agencies, other organizations. For example, staff members responsible for reporting to donors will be most familiar with

## Project Information Management

the requirements of these donors. For internal operations, each staff member's data requirements are dictated by the staff member's responsibilities. The person most familiar with the job will be able to specify the information needed to do the job efficiently and accurately. The increasing reliance on site-based decision making generally means that more information must be made available to more people. By including staff from all areas of a project in the development of the information management plan, increases the chances of the plan's success.

After these requirements are gathered, it should be analyzed and compared to the project's current efforts. In particular, a project should look for duplication of effort (for example, multiple staff members citing responsibility for reporting identical information), requested information needs that do not match a staff member's level of authority and obvious omissions in the project's information needs.

The project needs to develop a document that details the project information needs, both internally and external. The document should identify the people that need the information, when they need them, how they need it and what uses will be given to the information. The project can use this matrix to rank the priorities and relevance of all information needs.

## THE INFORMATION COLLECTION PROCESS

---

After information needs are identified, a project can determine sources for the various types of information and specify how the information will be collected

### Information Sources

The information management plan must identify an appropriate source for each type of information required. A project acquires information from both internal and external sources. For all sources, the plan should describe how the information will be collected and stored.

If there are multiple sources for a particular type of information, then sources must be judged based on efficiency, accuracy and how close the source is to the origination of the information. A direct flow of information is generally the most efficient and the most accurate. The project should determine the most efficient source and modify its

## Project Information Management

information collection procedures if a proposed source is more efficient than the existing source. For example, if one project manager currently receives country statistic information from another project manager who receives the information from the main office, it may be more efficient for the main office to provide such information directly to all project managers. This direct flow ensures that all managers receive the same information in the same time frame and reduces the potential for information to be miscommunicated.

A project should also ensure that duplication of effort does not occur in the collection of information. As much as possible, a project should strive to have a single source for each information type. If a project maintains multiple data bases for beneficiary surveys (records maintained by the project staff and separate records maintained by the partners), the possibility of problems relating to accuracy and consistency of beneficiary reporting may increase.

### Collection Issues

The project's information management plan should address the following:

- How will information be collected?
- Who is responsible for the collection of information?
- When will information be collected?
- In what format will information be collected?

The method for collection depends on the type of information and how it will be utilized. The plan should assign collection responsibilities to specific staff members to ensure that expectations are clearly understood and that duplication of effort is reduced.

The plan should incorporate reporting deadlines when appropriate and establish time frames for all collection tasks. It should clarify which time frames include due dates that are fixed and those that are simply target dates.

For collection activities that require data to be collected or reported in specific formats, the plan should either specify the format or refer to the source documents that provide the information.

A project may use a variety of documents to address these issues. Timelines, charts, checklists and information flow diagrams are a few examples of documents that may be useful. Some of these documents

## Project Information Management

require frequent or periodic updating. For example, a timeline that includes major project events will be replaced with a new timeline each year.

### Timing Issues

The timeline should show reporting requirements in chronological order. This schedule can identify a project's peak information reporting periods, down times, deadlines and overlapping events. During the planning process, potential problem situations identified can be dealt with in a timely manner. A timeline that includes external reporting dates allows a project to establish internal due dates for the creation or sharing of information. For example, based on a project's fiscal year deadlines to its donor and to headquarters, the project can establish essential internal deadlines for submission of designated elements of PMIS information to the project's PMIS coordinator.

In certain instances, a project may not control overall aspects of the timing of information collection activities for reporting information to external organizations. For example, a project may rely on the local government own timelines to publish reports.

The uncertainty that exists in such situations can make planning difficult. A project may still establish detailed timelines and checklists for the annual processing of donor reports despite this uncertainty. However, there is a certain amount of risk that the external agencies will not make information available within the time frames established by the project's schedule.

A project should include dates for such activities in its information planning timelines even if the dates are estimates. Dates help ensure that critical deadlines or events will not be missed and to provide a framework for change, if necessary. For example, a project may have established time frames for Donor report preparations but then discover late in the calendar year that additional information will be required for reporting. Since the project already has a plan with established time frames for the preparation of the report, it should be easy for the project to analyze the effect of the new requirements and to make adjustments to comply with the requirements.



## Project Information Management

The chart below reflects an example of a timeline highlighting major project activities. These timelines can be a useful component of the information management planning process.

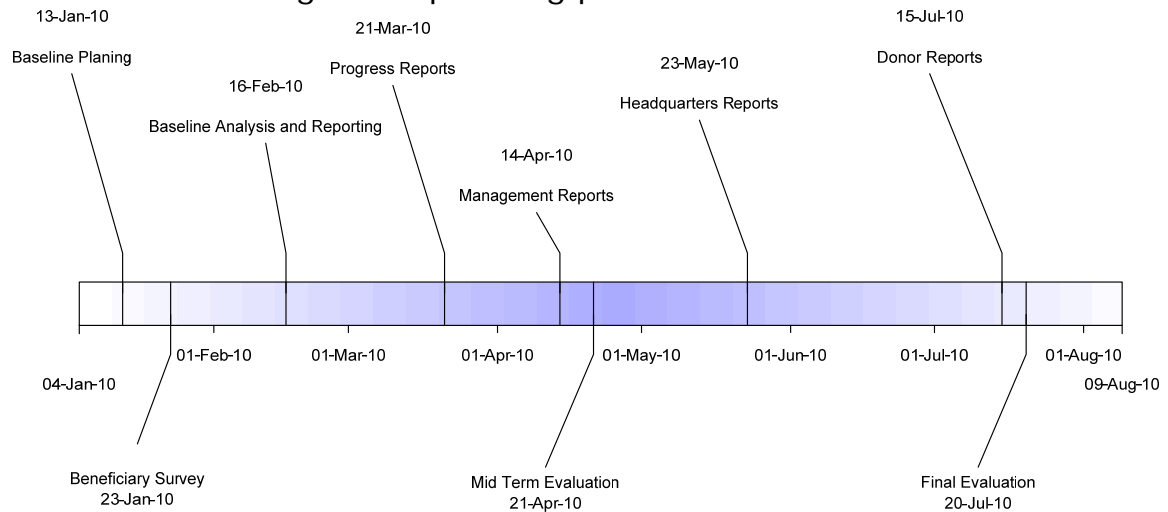


Figure 1 Example of a Timeline of Major Events for a Project Information Needs

## Resource Aids

Utilization of project planning tools can enhance the information management process. The use of charts such as project evaluation and resource tracking charts (PERT) and Gantt charts can be valuable to graphically display process flows, timelines, tasks and the interrelationships. Staff members involved in the design of the project's information management system should become familiar with these chart types which can be very useful tools for information management planning.

PERT charts can be used to depict the interrelationships among the tasks that make up a project. The format is similar to a flowchart. Each box or ellipse within the chart represents a task; connecting lines or arrows show the relationships between the tasks. This chart is very helpful in depicting work flow and interdependencies between tasks. The chart clearly shows which task or tasks must be completed before another task can begin and which tasks can be carried out simultaneously.

For example, a PERT chart might be used to depict the work flow and critical paths for the Donor Report submission. The chart can help staff members see the tasks they may begin before other tasks are completed, the tasks that cannot begin until after another task has

## Project Information Management

been completed and that some tasks can occur simultaneously. The chart below provides an example of a PERT chart for this type of project.

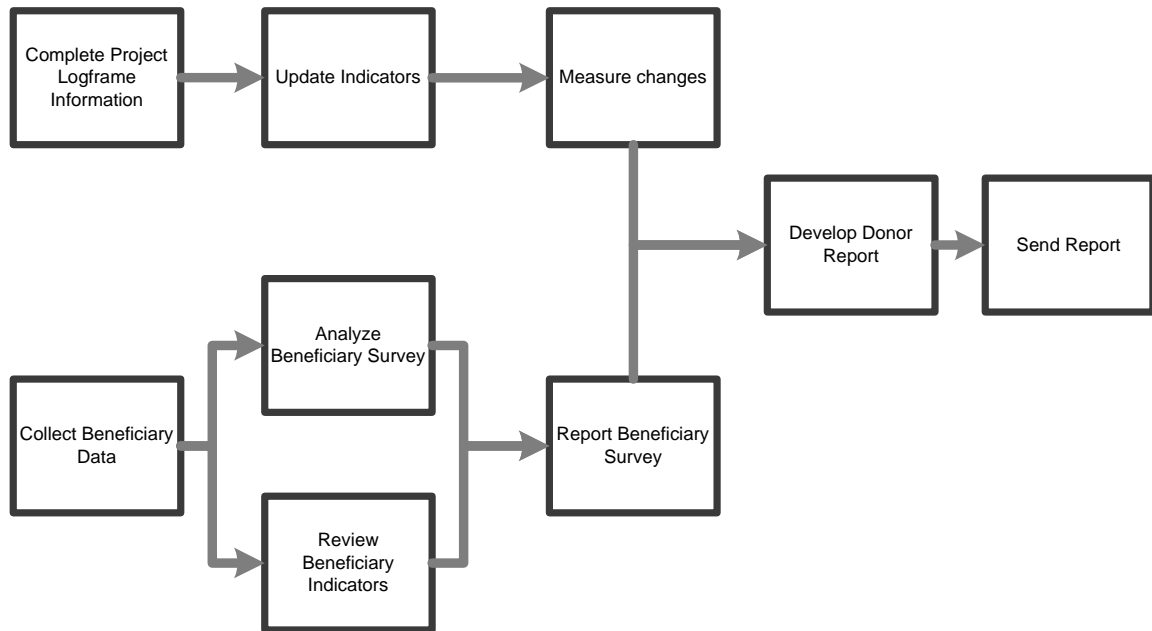


Figure 2 Work Flow PERT Chart

A Gantt chart is a graphic representation of a project's schedule. Each task within the project appears as a bar. The bar's length represents the task's duration. The starting point indicates when work on the task can begin. At the beginning of the project, the chart shows the estimated times for each task. During the project, the chart can be updated to show the actual time a task was completed. A Gantt chart shows whether a project is on schedule signaling modifications that should be made to the project to provide resources to make up for the time lost.

The chart below shows what a segment of a Gantt chart for a project might look like. Note that the Gantt chart shows both the anticipated times needed to complete each task and the interrelationships between the tasks. If a task early in the project falls behind schedule then adjustments must be made in the time allowed for later tasks (updating staff responsibilities) if the project is to be completed on time and meet the due date.

# Project Information Management

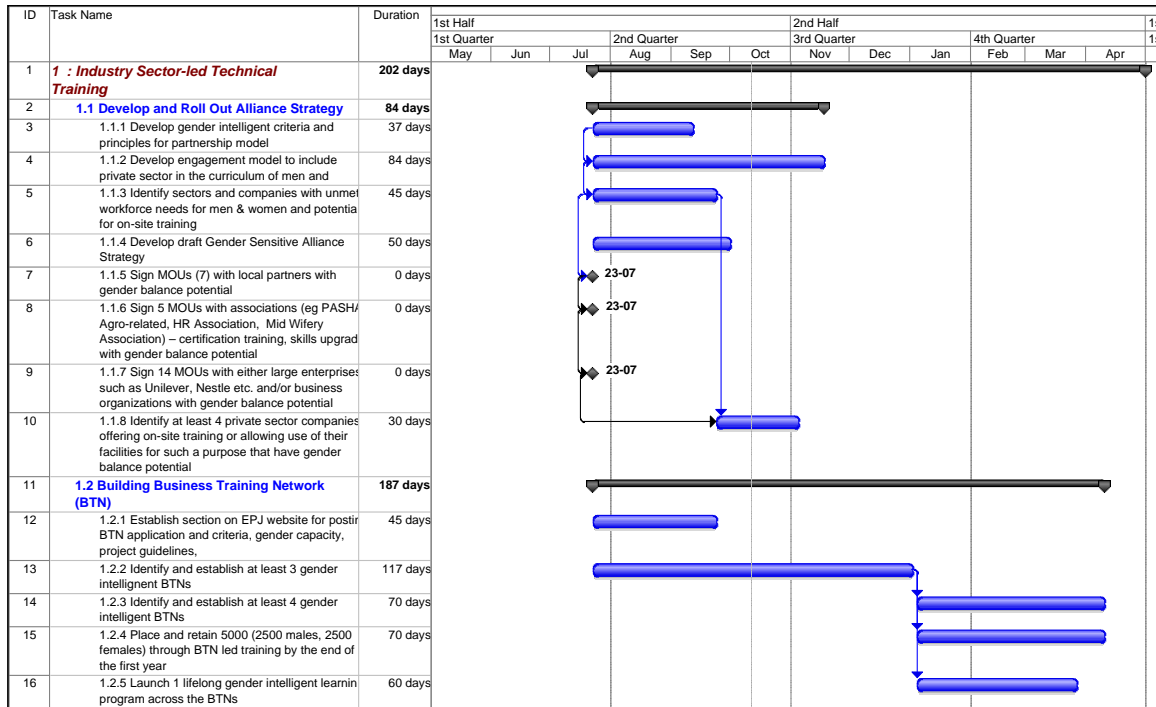


Figure 3 GANTT chart Information Schedule

## Checklists

A checklist is another useful tool in information planning. Some data collection and reporting activities in the project's timetable require a very detailed breakdown of the steps necessary to accomplish a task. In this situation, a checklist of the steps required may be useful.

The checklist should list each step in the process, the person(s) assigned to do the task and the date the task must be completed. A checklist:

- Assists a manager in tracking the status of the project
- Informs staff of task and time expectations
- Provides a measure of assurance that steps will not be omitted
- Provides a framework for tasks to be done in a logical, efficient manner
- Assists with time management
- Provides feedback that may indicate problematic aspects of a project

The chart below is an example of a checklist that might be created by a PMIS coordinator in preparation for donor report submission:

## Project Information Management

<b>Task</b>	<b>Responsible</b>	<b>Planned completion Date</b>	<b>Actual completion Date</b>
Distribute project's information requirements	Project Manager	Week 2	Week 2
Train staff on use of PMIS	Consultant	Week 5	Week 4
Establish due dates for donor reporting	Project Manager	Week 3	Week 3
Design Baseline forms	M&E Coordinator	Week 2	Week 3
Prioritize information needs	Project Manager	Week 3	Week 2
Conduct Surveys	Project Staff	Week 6	Week 7
Collect and analyze survey information	M&E Coordinator	Week 8	Week 8
Report initial results	Project Manager	Week 10	Week 12

### Information Flow Diagrams

Once a project knows who needs what specific information and where that information is located, another tool can be utilized for the next phase of the information planning process. This tool is the information flow diagram. The purpose of the diagram is to specify how information is transmitted or circulated among staff members and to and from external organizations.

Multiple diagrams may be needed to adequately document a comprehensive plan. A master information flowchart may document information flow to; from and across major stakeholders or areas as well as document the process by which information is reported to external entities (e.g., donors and local governments). Supplemental



## Project Information Management

A project can implement a variety of plans to ensure that reported information is complete and accurate. These plans can be divided into two broad types:

- Procedures for editing, testing and analyzing that are incorporated into day-to-day operations
- Procedures for editing, testing and analyzing that are designed to be used for specific reporting purposes and that are implemented on or near the time the project is required to report the data

Generally, the more verification that can be incorporated into a project's regular data-generating activities, the better data the project is likely to produce. Project information is accessed by various users on a regular basis for decision making purposes. Users should have confidence that a project's database is as correct and complete as it can be at any time the user needs the information.

Another reason to incorporate editing and analysis into everyday activities is that it is much easier and more efficient to identify and correct mistakes on a current basis rather than on an historical basis. Furthermore, most projects will find handling large information delivery projects easier if the information is collected and reviewed on a regular basis rather than all at once before the reporting deadline.

Analysis refers to the ability to break down the information into its component parts so that its elements may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved.

Analysis usually involves the search for potential problems in a project, the design of solutions and the implementation of the best option. Stakeholders have many different needs for information; analysis is usually done to see if the project is doing the right activities to accomplish the desired objectives in the time and budget assigned. If there are deviations from the original plan, management needs to develop alternative solutions or remedies to make up for the delays or shortcomings.

The way information is presented helps the analysis of the information, rather than presenting all the facts the projects needs to understand the type of analysis and uses of the information and make changes or develop formats to present the information that facilitates its analysis.

## Project Information Management

In most cases the representation of information in the form of charts, graphs or maps facilitates its presentation; the visualization of information also helps identify trends or changes that are not easily identified when the information is presented in tabular format

When looking at the information ask the following:

- Are there any similarities in trends from two different sets of data?
- How far or how close are we from our original objectives?
- Do we need to rethink our original assumptions on the project strategies?
- Is the information telling us something else?
- Is the information showing us what we expected to see?
- Are there any other needs to have more detailed analysis or additional information to help clarify an issue?

### **Reporting the Information**

The most visible part of a project information system is the reported information. Project staff, outside organizations and the donor form opinions and make decisions based on the information reported by the project. A project therefore should strive for timely, comprehensive and understandable reporting mechanisms and formats.

For project reporting, the most critical elements may be timing, accuracy and completeness. Day-to-day operations depend upon a regular flow of reliable information. The financial manager may need a monthly analysis of cash balances and projected cash flows to make cash management decisions. Program managers need reports comparing expenditures to budgets so that budgets are not overspent. A project should spend time training its staff to read project reports and documents necessary to perform their jobs.

As timeliness, accuracy and completeness are as important reporting, the format or manner in which information is presented is also critical. The format may be determined by an outside agency (for example, the reporting formats required by the Donor). In this case, a project must take pains to report in the required manner. Reporting in the manner prescribed may involve activities such as programming changes, staff training and/or technology changes.

## Project Information Management

For external reporting with no mandated format, a project's primary consideration should be what information it desires to convey and to what audience it is presenting the information. For example, a presentation to beneficiaries about a project's progress may be less technical in nature than a similar presentation to donors.

### **Historical Information and Record Keeping**

An integral but frequently forgotten component of an information management plan is the maintenance of historical records. Historical information for projects is generally classified into two categories:

- Records the project is required to maintain based on the Donor or Local Government requirements.
- Records the project is not legally required to maintain but that have programmatic significance for development organizations.

Each project must make its own determination about what records have programmatic significance and for how long they maintain such significance. For example, a project may make multiple copies of some documents to allow for easy access to or wide distribution of information. Generally, the original document should be retained for the required period, but copies can be destroyed at the project's discretion.

After the project has specified the contents and location of the records that must be maintained due to legal requirements, it should be easier to specify the other types of records that should be retained for programmatic purposes.

Incorporating historical records management into the information management plan enables a project to:

- Know what records it has and where they are located
- Properly identify and store records that must legally be maintained either permanently or for a specified period of time
- Know when it can legally destroy records to minimize record storage issues.

### **Deciding who has Access to the Information**



## Project Information Management

A crucial aspect of information management for any development organization involves access to information. A project should consider:

- What safeguards are needed to limit information access to staff with proper authority to access the information?
- How does the project team access the information they need?
- What must happen when a staff member changes positions or leaves the project?
- How can the project guarantee protection for records that are deemed confidential?
- What procedures should be established to ensure compliance with the local government legal requirements?

A project must decide what types of project information will have limited access. Access may be limited because of legal requirements or internal requirements. For example, a project may not want anyone other than management staff to have access to monthly financial reports until the finance unit has reconciled and reviewed the reports, disclosure is not the issue, but the prevention of unnecessary confusion that could be caused by access to un-reconciled information.

Once a project knows what information should be classified as having limited access and what staff must have access to the restricted information, the project can determine what kinds of limitations are appropriate for the various categories of information. Access can be limited by the information's physical location or by some other types of controlled access measures. For example, classified beneficiary information may be stored in locked file cabinets in a room that has limited access or the information may be recorded on a computer that has password security.

Whatever methods are used to limit access, authorized staff must be given the tools necessary to gain access. Ensuring access may be as simple as providing keys to a room or file cabinet or assigning passwords and levels for computer access.

When a staff member moves from one position to another or when a staff member leaves the employment of the project, security changes may be necessary. For example, security codes may be changed or the staff member's computer passwords may be deleted.

Projects frequently receive requests for information from the public. However, projects may have records that are protected from disclosure. Project staff should be trained to know what information

## Project Information Management

falls within this category and how to handle requests for all information, whether confidential or not.

### **Personnel in Charge of Managing the Information**

Human resources are a vital component of an information management system. The information management plan should:

- Assign duties and responsibilities to specific staff members or positions for creating, maintaining, reporting and/or storing designated types of information
- Establish methods for ensuring that personnel are qualified and adequately trained for the responsibilities assigned to them

### **Coordination of Responsibilities**

There are a variety of tools to help a project assign responsibilities and to coordinate the assignments. Organizational charts, PERT charts and information flow diagrams are examples of tools that can be used to coordinate and assign responsibilities and to assist staff in understanding their roles in the system. For more information about PERT charts and information flow diagrams, see the Information Collection section of this chapter.

It is important that all staff members clearly understand their roles in creating, collecting, maintaining or reporting information. Job descriptions should include principle duties relating to management of information. Staff members should understand the interrelationships of their duties and responsibilities with other staff members so that they understand the consequences of missing deadlines and of not sharing information in a timely manner.

For example, a project's PMIS coordinator is responsible for collecting and integrating all of the various records required for a Donor submission. The PMIS coordinator usually is not responsible for maintaining the database(s) from which this information is extracted (e.g., beneficiary attendance is usually maintained by field personnel while budget information is usually maintained by the main office or the finance department). To ensure that the Donor submissions will occur as efficiently as possible, staff members should clearly understand their roles and how they relate to the process.

## Project Information Management

The charts and diagrams described earlier can also help identify staffing patterns that may require change to allow for meeting deadlines or to provide continuity during times of staff reorganization, staff turnover or the absence of key staff. For example, if there is one staff member responsible for project's reporting, overseeing the midterm evaluation and serving as the PMIS coordinator, creation of a PERT chart may demonstrate that critical deadlines cannot be met without a reassignment of some duties to another staff member. Or, if a key staff member resigns, organizational charts and information flow diagrams can provide important information to help a new staff member understand the position requirements and workload fluctuations.

Other information sources that may be helpful when a project is trying to assign and coordinate information responsibilities are:

- Well-written job descriptions
- Records showing individual staff members' skills and prior work experiences

## Staff Qualifications and Training

Even with the best information management plan, if the staff members assigned to carry out the plan are not qualified or are not adequately trained, the plan can fail. For example, a project staff responsible for submitting quarterly reports to the project manager may be completing the report mechanically without understanding why certain information is reported in a certain way. If something unusual occurs, reports may be completed incorrectly or not completed at all. For example, if a Donor contract adjustments are made that affect a prior report, a corrected report may be required. If the staff does not understand how the adjustments affect the Donor report, the corrected report may not be completed.

A project should identify critical qualifications appropriate to each position and hire people based on these qualifications. Qualifications may include:

- A specific degree or level of education
- A professional certification or specialized training
- Certain types of previous job experience
- Combination of the above

## Project Information Management

Most employees, even though they meet specified qualifications, require training in a specific job. Training may relate to diverse areas including:

- Computer hardware
- Special equipment
- Software programs
- Specific processes required in the position
- How to read special reports
- How to fill out special forms

Appropriate training can come from a variety of sources, local education service centers, professional organizations, non-profit organizations and private vendors offer training in many areas on either a regular basis or on an as-needed basis. In addition, projects should consider whether existing staff members may be able to provide in-house training for other staff members.

Training should be considered an on-going process. Frequently, changes in process, donor requirements, technology, rules or regulations require additional training of experienced staff.

## **Technology to Support Information Management**

Information technology is significantly changing the development environment. In recent years, rapid advances in hardware, software, and communications technologies have yielded increases in productivity and effectiveness for office personnel, particularly in the areas of information collection and reporting.

Depending on the size of the Project, using technology to speed up the information management process may be useful. Using technology is not an end to itself but a tool to help the automatization of a well designed process. The use of technology can assist in the data capture and storage and distribution of information to all stakeholders, but the analysis remains in the hands of the people involved in the project. Selecting the right technology for the right job is not an easy task. The project needs to evaluate the right "doses" of technology that will help the project. Too much technology can actually hinder the project's ability to operate efficiently and instead of working with technology the project ends up working for technology.

## Project Information Management

Computers are efficient in managing large amounts of data and producing reports, and can help M&E by organizing the information and presenting the results quickly for the project to make decisions. Deciding to use technology to automate the PMIS process should not be done until the manual system is up and running. If the manual system is not working then technology will not help at all, on the contrary it may add more problems and staff may feel the culprit is the technology and not the process.

### **Deciding to Computerize PMIS**

The size and complexity of the project will define the level of technology that can be implemented. Use of technology is not a necessary element at all levels of the project. The use of computers can assist in the organization of information but at the end are the project members who are in charge of the analysis and use of the information processed by technology.

When deciding to computerize the PMIS take in consideration the following questions:

- Do all project staff and partners have adequate skills to use computers? If not then how much it will take to train staff to the desired level?
- What are the manual processes that technology will help the project? If the process is simple then a complex database system may not be needed at all.
- Do all project locations have good access to technical support, what would be the cost of the support to maintain and fix the computers?

The purpose of having a computerized PMIS is to facilitate and expedite the handling of large amounts of information. Before the project decides to computerize PMIS a manual system should be in place and should be functioning. The computer will not be of any help if the manual system is not working, if project personnel are not using the manual system then adding technology will not help.

### **Technology Related Issues**

Although the use of technology can have significant advantages to a project PMIS, it should not be viewed as a one-stop solution or a way

## Project Information Management

to solve other non-technical related problems. The project needs to make a careful consideration on the type and complexity of its information management needs to decide the level and complexity of its technology solutions. It can be quite easy for project to go and develop a complex system without first understanding its own realities about using and supporting the technology.

When making technology-related decisions, the following activities should be conducted:

- Perform a cost/benefit analysis of the technology
- Identify the level of resources available to the project for technology (both monetary and human resources)
  - Review the types of technology or technological services available to meet the needs of the project
  - Seek best practices from other comparable projects
  - Human resources are required to successfully maintain information systems. Obviously, programming and technical resources are required to install the hardware and software. However, a system is only as effective as the people who use it. Accurate work-flow design, development of policies and procedures and adequate training are vital for a successful implementation. Some key elements to remember are:
    - Do not automate an existing work flow without reviewing other alternatives. Often, the implementation of a new system provides an opportunity to evaluate and modify processes, policies and procedures.
    - Get input from the eventual end users of the system during the design or package selection phase of the project. This step is beneficial for several reasons. First, people generally fear change; it is important for end users to feel involved in the process to make change happen. Second, informal work patterns develop over time. Recognize that they exist and incorporate them into the new system.
    - Develop detailed technical and user documentation, including work-flow policies and procedures. Information systems generally have a life-span of five years. Because the information is an on-going process, user documentation and on-going training is important because of new hires and staff turnover.
    - Train staff as close to implementation as possible; people tend to forget systems training if it is done too much in advance of their actually working on the system.

### **Internal Controls and Quality**

As a project writes an information management plan, inherent in the process should be consideration of internal controls. Each project should have an internal control structure in place to provide reasonable assurance that the project's assets are safeguarded from unauthorized use or disposition.

The attitude of a project's administration about the importance of internal controls is a key factor in the successful implementation of an internal control system. Development of policies and procedures that include internal control elements is critical. Willingness to immediately take corrective action when deficiencies are discovered is also important.

When a project creates an internal control plan, it should consider including:

- Security measures to safeguard the project's assets from internal or external misuse (such as video monitoring, limiting access, security codes and computer passwords)
- Segregation of duties
- Hardware and software controls
- Internal audit and review functions
- External audits

### **Implementation Strategies**

Information is an important resource for projects, the organization and donors, with information quality influencing decision quality; it highlights our need to manage our information as a resource. Information Management has as its goal the management of information as a resource, but that has not been given the required level of priority. Problems with the implementation of Information Management are indicated by the presence of redundant or inconsistent information, inability to share information across systems, and difficulty finding the information on systems.

Most of these difficulties are related to behaviors linked to perceived ownership of information by organizational sub-units. To improve the management of information we recommend that country offices take ownership of the information resource at the executive level, and

## Project Information Management

educate users of the information on the benefits of stewardship of the information they use. This will encourage staff at all levels to see information as a resource, not merely a cost of doing business.



## MONITORING THE PMIS

---

### Monitoring Information Quality

Every Project PMIS should establish and information quality as a performance goal. Quality includes the utility, objectivity, and integrity of the information. The level of quality should be "appropriate to the nature and timeliness of the information to be disseminated" and will be affected by the nature of the information collected by the project. In considering utility, projects should evaluate the usefulness of particular information to those expected to use it.

The goal of information quality management is not about improving what is in the information repository or even the databases. The goal of information quality management is: To increase project effectiveness by eliminating the costs of non-quality information and increasing the value of high quality information assets. Information quality must concentrate on the people responsible for collecting, analyzing and disseminating information and not on the system. After all it is people who manage and use information.

Essential ingredients for information quality management:

- Understand that information quality is a project problem, not just a systems problem, and solve it from a process perspective.
- Focus on the users and sources of information, not just the information.
- Implement reviews of information quality in the project process
- Measure not only validity but accuracy.
- Evaluate the impact of poor quality information on the project and donors expectations.
- Provide quality training to staff in charge of collecting information.
- Manage quality as a product to the various projects stakeholders.
- The quality of decisions has a direct correlation with the quality of the information provided.

Information should be fit for its purpose, timely and accurate: it must be available to the staff that needs it at the right time in an appropriate format. In order for information to be of value, it must be quality information of direct relevance to the projects objectives. Inaccurate, partial or superfluous information is of no value and may

## Project Information Management

even be detrimental to the overall project processes. The quality of information can be evaluated via the use of information needs analysis and quality metrics. Some principles and good practice related to quality of monitoring information.

### Monitoring and Evaluation System Plan

A monitoring and evaluation plan should be included as a part of project information management plan design. Project activities should be scheduled on annual implementation or work plans.

### Monitoring Planning Matrix:

<b>Goal Hierarchy</b>	<b>Selected Effect Indicators</b>	<b>Outputs</b>	<b>Activities</b>	<b>Inputs</b>
<b>Indicators</b>	A subset of evaluation effect-level indicators which are easily monitored	Output-level indicators	Activity-level indicators	Input-level indicators (link to financial accounting)
<b>Information Needed</b>	Specific variables to measure for each selected effect indicator	Specific variables to measure for each output indicator	Specific variables to measure for each activity indicator	Specific variables to measure for each input indicator
<b>Information Source &amp; Collection Method</b>	Same as in evaluation matrix for specific effect indicators	Based primarily on project records, but may require periodic survey	Based primarily on project records	Based primarily on project records, financial accounts, and records
<b>Frequency of Collection</b>	Annually or other regular/periodic timeframe	Specify the timeframe needed for efficient monitoring	Specify the timeframe needed for efficient monitoring	Specify the timeframe needed for efficient monitoring
<b>Person Responsible</b>	Who will be responsible for collecting	Who will be responsible for collecting	Who will be responsible for collecting	Who will be responsible for collecting

## Project Information Management

	the information	the information	the information	the information
<b>Information Analysis</b>	Primarily trend analysis to measure effect-level changes over time	Trend analysis and simple statistics	Basic statistics and accounting	Goods and services expenditure accounting
<b>Reports and Use of Information</b>	Used as early warning of effect changes; develop key questions	Project tracking and linkage to goal-level changes	Project tracking and accountability	Accountability and budgeting

## EVALUATING AND IMPROVING PMIS

---

Just like any development project the PMIS needs to be evaluated and improved. Look at the processes, use the findings from the evaluations and lessons learned to help understand what needs to be improved and why. Build in the information plan activities designed to evaluate and improve the information management process that supports PMIS. Assign timelines, responsibilities, and a budget to accomplish the above. Get the project staff and stakeholders in the process of evaluating; if possible get some outside expertise to help in the evaluation. The IM plan will be more complete when an element exists that incorporates the lesson learned into the new cycle or the next time a project will design its PMIS.

### Information Audits

An information audit is a systematic process through which an organization can understand its knowledge and information needs, what it knows, the information flows and gaps. Resulting from an information audit is an 'information map' which can be used as the basis for designing the foundation of a corporate information strategy or a knowledge management strategy.

## Project Information Management

An information audit will review what information is created and needed across the organization. Everyone within an organization has a role in creating and using information – even if they do not realize it! One of the positive side effects of a well-run information audit is that it raises the awareness across the organization of the value of information and the value of sharing knowledge. An information audit will also:

- Identify the information needs of the organization itself, the various business units and divisions, and the specific needs of individuals
- Identify the information created and assess its value to the organization
- Identify expertise and knowledge assets and enable the start of an intellectual asset register
- Identify the information gaps
- Identify quick wins that could be implemented to produce immediate benefits
- Review the use of external information resources and how it may be used more effectively
- Review the use of internal information resources, how valuable they are, and how they may be improved
- Map the information flows and current bottlenecks within those flows
- Develop an knowledge and information map of the organization

### **Information Audit Benefits**

Information and knowledge are now recognized as core assets of any organization and are potentially the source of an organizations key competitive advantage. The main benefit of an information audit is the development of a much better understanding of this prize asset and how it can be used to stimulate creativity and innovation.

Specifically an information audit will be to identify how the organization can:

- make better use of its intellectual assets
- make better use of external information
- avoid inefficiencies and duplication of information
- avoid information overload
- save real time and money through efficiencies

### **The Information Audit Approach**

A successful information audit must reflect the organization and how it works. It must review the different business processes within the organization, exploring what information is needed in the process and what information is generated by the process. It requires a top-down as well as a bottom up approach looking at all the information flows, barriers, and inefficiencies. An independent information audit team is often preferable, bringing confidentiality and a fresh perspective to information management practices and use. To achieve all the objectives of the information audit, to gather all the data, and to develop practical proposals, a mix of interviews, questionnaires, discussion groups and focus groups need to be used.

To understand the key issues and business processes a number of people in 'central' positions are interviewed. A detailed questionnaire to all staff draws out specific information and appropriate data. Discussion groups test conclusions, and focus groups explore particular issues and challenges.

Once the information map is complete and recommendations implemented the information audit should not be forgotten. Organizations change and information needs and flows change – the information audit should be a regular feature of an organization helping to maintain and capitalize on this critical asset.

### **Project Evaluations**

A critical component of the PMIS is the way information on project's baseline and evaluations are managed. The project needs to have a structure to manage this information from the beginning of the project until its very end. Only by the analysis of the project outcomes against its expected objectives we are able to know whether or not the project was a success.

### **Evaluation Information**

Evaluation information has many elements; the first one is information on the Baseline, the baseline provides with a "snapshot" of the situation of the project targets at the beginning of the project and it serves as a tool to compare the progress made by the project during

## Project Information Management

and at completion. Midterm evaluations are made half way through the project; basically it's a small stop in the project to see whether or not the project is in the right course. Internal Project evaluations are done by the project staff to evaluate not only progress made but to see if any changes are required in both the goals originally planned or the methodologies to implement the activities.

The final evaluation seeks to answer the questions. Did the project meet its expected objectives?

<b>Information Type</b>	<b>Description / Example</b>
Baseline	When deciding what information to collect for a particular indicator, the projects needs to ask if the information collected can be used to measure and make comparisons on progress or not. Projects suffer from either getting too much or too little information.
Internal Evaluation	Made by the project before the midterm evaluation to determine progress or deviations from plans. This information can be quite useful for the midterm evaluation and can result in the discovery of opportunities to improve the project.
Midterm	Midterm evaluation, usually made by the donor agency.
Internal Evaluation	Made by the project before the midterm evaluation to determine progress or deviations from plans. This information can be quite useful for the midterm evaluation and can result in the discovery of opportunities to improve the project.
Final Evaluation	Final evaluation, usually made by the donor agency.

The PMIS needs to be able to collect in an organized manner the information gathered by the evaluation process. Some of the common tools used for data collections in evaluation are:<sup>1</sup>

- Surveys
- Participatory Rapid Assessment
- Key Informant Reviewers
- Focus Group Discussions
- Individual and Household Case Studies

---

<sup>1</sup> CARE Project Design Handbook, Richard Caldwell, July 2002

## Project Information Management

The PMIS system needs to be designed taking in consideration the information needs of the evaluation process and the ability to show data when needed. How effective we are should not only respond on how the project was able to deliver all activities but also how efficient we were in delivering within the boundaries of the schedule and the budget and how the project deliverables met the project objectives. It is not uncommon for a project to have completed all activities on scheduled and under budget but has missed completely the objective of the project.

### **Lessons Learned**

This is an area that the project uses to capture the lesson they are learning on the project, information that can help in the redesign of the project or in the design of new projects. The rationale behind capturing lesson learned is driven by the very same nature of projects: projects as such are undertaken to create a unique outcome, or result. Since each project is unique, it is impossible to predict the exact course of the project with precision. Therefore each project is expected to face a unique set of challenges. But while the set of challenges is unique, individual challenges recur. By documenting the causes of variances, and the thinking behind the corrective action, we can enhance our ability to respond to future project challenges. We enhance our ability to deliver every project on time, within budget, according to specifications and contractual agreements.

## PM4DEV.COM

Drawing from our deep understanding of the challenges and the needs for realistic solutions that can improve the way in which projects are managed and services are delivered, PM4DEV offers the only adapted Project Management Methodology for development organizations. Our services include:

- **Consulting**, to help organizations implement a project Management methodology that will increase the impact of their interventions.
- **On Site Training** on project management methods to increase and develop the skills of project managers
- **Online Learning** for project managers that want to develop their own competencies on a flexible online learning environment.

To get more information on these services, visit our web site at [www.pm4dev.com/services](http://www.pm4dev.com/services) or send us an email to [services@pm4dev.com](mailto:services@pm4dev.com). We offer competitive prices and high quality material developed by international certified experts in Project Management.



---

## Adaptive Project Management Cycle

In this comprehensive course, you will learn how to initiate, plan, implement, adapt and close a project that meets the needs of the beneficiaries and expectations of key stakeholders. The online course will introduce the elements of the project management lifecycle. You will learn the methods for the efficient management of a project using a phased approach and the concepts and practices necessary for project management success. In this course, an experienced Project Management Professional (PMP) will teach you the same techniques that experienced project management professionals rely on every day. You will learn how to apply the flexible adaptive management approach and learn to utilize the concepts of Monitoring, Adapting, and Continuous Improvement throughout the life of the project



---

## Leadership in Project Management

In this course, you will learn how to best resolve conflicts and manage agreement, and how to enhance communications effectiveness. You will develop the necessary skills to get the maximum performance from every member of the team, know how to apply the methods of leadership that are most appropriate for achieving project success and discover which forms of leadership and communication are best suited to the various stakeholders. You will learn techniques for resolving conflict and managing team issues, and gain a solid understanding in analyzing stages of team development and maximizing project team effectiveness.

---

## Results-Based Project Management

This course takes the concepts of RBM and applies it directly to the project management environment, using all the processes and methods that will help development projects achieve the desired results. It's designed for people that have a responsibility to manage or contribute to the results of a project; especially project managers, team members and program directors. Participants will develop a complete understanding of the most common principles, processes, and tools that are necessary in the planning, implementation monitoring and reporting based on best practices in the RBM field. With a special focus on the application of the results chain, the logical framework and the performance measurement framework.



---

Find out more about our online courses at <http://www.pm4dev.com/elearn.html> and start build your project management skills. 20% early registration discount on all courses.

Copyright © 2016 PM4DEV  
All rights reserved.

PM4DEV, its logo, and Management for Development Series are trademarks of Project Management for Development, PM4DEV.

This point of view is intended as a general guide and not as a substitute for detailed advice. Neither should it be taken as providing technical or other professional advice on any of the topics covered. As far as PM4DEV is aware the information it contains is correct and accurate but no responsibility is accepted for any inaccuracy or error or any action taken in reliance on this publication.

This publication contains PM4DEV copyrighted material and no part of it can be copied or otherwise disseminated for commercial purposes.

This Point of view provides a summary of themes, that in PM4DEV's experience, have proved critical in the successful implementation of project management methodologies.

It draws on the expertise of Project management professionals and provides a guide to deliver a methodology that increases the chances of project success.

For more information about PM4DEV services, contact us at: [info@pm4dev.com](mailto:info@pm4dev.com)

The Sustainable Development Goals (SDG) aim by 2030 to end poverty, protect the planet, and ensure prosperity for all.

PM4DEV is committed to provide resources and develop knowledge and expertise to support development organizations in their efforts to achieve these ambitious goals.



Project Management  
For Development Organizations

[www.pm4dev.com](http://www.pm4dev.com)  
[info@pm4dev.com](mailto:info@pm4dev.com)