# Monitoring and Evaluation Handbook

Pakistan Centre for Philanthropy

## Prepared by Pakistan Centre for Philanthropy

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# 1. What Is Monitoring And Evaluation?

Although the term "monitoring and evaluation" tends to get run together as if it is only one thing, monitoring and evaluation are, in fact, two distinct sets of organizational activities, related but not identical.

**Monitoring** is the systematic process of collecting, analyzing and using information to track a programme's progress toward reaching its objectives and to guide management decisions. Monitoring usually focuses on processes, such as when and where activities occur, who delivers them and how many people or entities they reach.

Monitoring is conducted after a programme has begun and continues throughout the programme implementation period. If done properly, it is an invaluable tool for good management, and it provides a useful base for evaluation. It enables to determine whether the available resources are sufficient and are being well used, whether the available capacity is sufficient and appropriate, and whether work is going according to the plan.

Michael Bamberger defines it as: "an internal project activity designed to provide constant feedback on the progress of a project, the problems it is facing, and the efficiency with which it is being implemented."

**Evaluation** is the comparison of actual project impacts against the agreed strategic plans. Evaluation focuses on expected and achieved accomplishments, examining the results chain (inputs, activities, outputs, outcomes and impacts), processes, in order to understand achievements or the lack of achievements. It can be **formative** (taking place during the life of a project or organisation, with the intention of improving the strategy or way of functioning of the project or organisation). It can also be **summative** (drawing learning from a completed project or an organisation that is no longer functioning).

What monitoring and evaluation have in common is that they are geared towards learning from what you are doing and how you are doing it, by focusing on:

- Efficiency
- Effectiveness
- Impact

**Efficiency** tells you that the input into the work is appropriate in terms of the output. This could be input in terms of money, time, staff, equipment and so on. When you run a project and are concerned about its replicability or about going to scale, then it is very important to get the efficiency element right.

**Effectiveness** is a measure of the extent to which a development programme or project achieves the specific objectives it set. If, for example, we set out to improve the qualifications of all the high school teachers in a particular area, did we succeed?

**Impact** tells you whether or not what you did made a difference to the problem situation you were trying to address. In other words, was strategy useful? Did ensuring that teachers were better qualified improve the pass rate in the final year of school? Before you decide to get bigger, or to replicate the project elsewhere, you need to be sure that what you are doing makes sense in terms of the impact you want to achieve.

From this it should be clear that monitoring and evaluation are best done when there has been proper planning against which to assess progress and achievements.

## 2. Objectives Of Monitoring & Evaluation

**Monitoring involves:**

- Establishing indicators of efficiency, effectiveness and impact;
- Setting up systems to collect information relating to these indicators;
- Collecting and recording the information;
- Analysing the information;
- Using the information to inform day-to-day management.

Monitoring is an internal function in any project or organisation.

**Evaluation involves:**

- Looking at what the project or organisation intended to achieve – what difference did it want to make? What impact did it want to make?
- Assessing its progress towards what it wanted to achieve, its impact targets.
- Looking at the strategy of the project or organisation. Did it have a strategy? Was it effective in following its strategy? Did the strategy work? If not, why not?
- Looking at how it worked. Was there an efficient use of resources? What were the opportunity costs of the way it chose to work? How sustainable is the way in which the project or organisation works? What are the implications for the various stakeholders in the way the organisation works.

In an evaluation, we look at efficiency, effectiveness and impact.

Monitoring and evaluation enable you to check the "bottom line" of development work: Not "are we making a profit?" but "are we making a difference?" Through monitoring and evaluation, you can:

- Review progress;
- Identify problems in planning and/or implementation;
- Make adjustments so that you are more likely to "make a difference".

In many organisations, "monitoring and evaluation" is something that that is seen as a donor requirement rather than a management tool. Donors are certainly entitled to know whether their money is being properly spent, and whether it is being well spent. But the primary (most important) use of monitoring and evaluation should be for the organisation or project itself to see how it is doing against objectives, whether it is having an impact, whether it is working efficiently, and to learn how to do it better.

Plans are essential but they are not set in concrete (totally fixed). If they are not working, or if the circumstances change, then plans need to change too. Monitoring and evaluation are both tools which help a project or organisation know when plans are not working, and when circumstances have changed. They give management the information it needs to make decisions about the project or organisation, about changes that are necessary in strategy or plans. Through this, the constants remain the pillars of the strategic framework: the problem analysis, the vision, and the values of the project or organisation. Everything else is negotiable. (See also the toolkit on strategic planning) Getting something wrong is not a crime. Failing to learn from past mistakes because you are not monitoring and evaluating, is.

The effect of monitoring and evaluation can be seen in the following cycle. Note that you will monitor and adjust several times before you are ready to evaluate and re-plan.
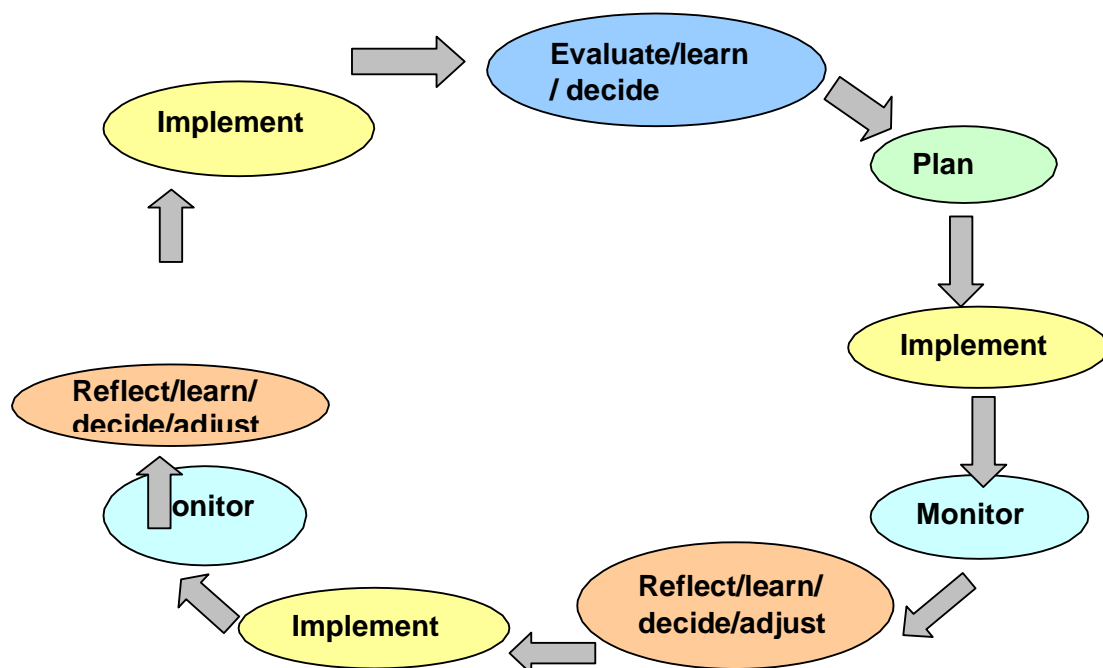
It is important to recognise that monitoring and evaluation are not magic wands that can be waved to make problems disappear, or to cure them, or to miraculously make changes without a lot of hard work being put in by the project or organisation. In themselves, they are not a solution, but they are valuable tools. Monitoring and evaluation can:

- Help you identify problems and their causes;
- Suggest possible solutions to problems;
- Raise questions about assumptions and strategy;
- Push you to reflect on where you are going and how you are getting there;
- Provide you with information and insight;
- Encourage you to act on the information and insight;
- Increase the likelihood that you will make a positive development difference.
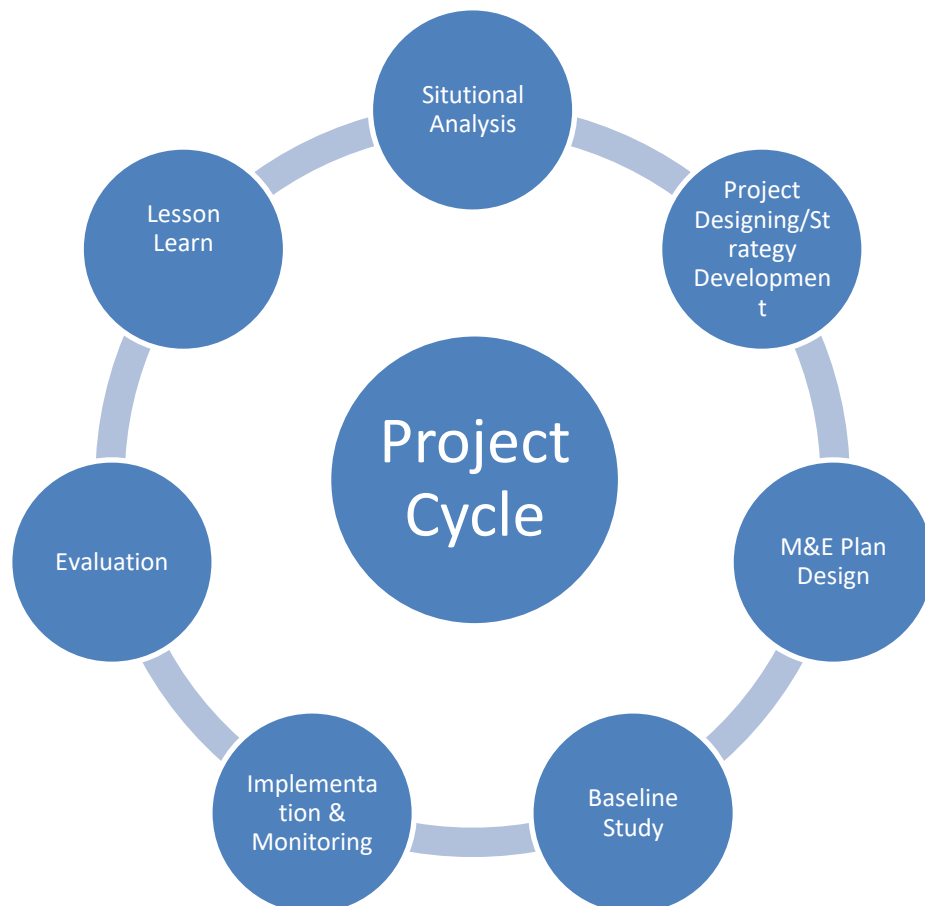
## Monitoring Vs Evaluation

| Sr. No. | Monitoring | Evaluation |
|---|---|---|
| 1 | Continuous process | Periodic: at essential milestones, such as the mid-terms of the program implementation; at the end or a substantial period after program conclusion |
| 2 | Keeps track; oversight; analyzes and documents progress | In-depth analysis; Compares planned with actual achievements. |
| 3 | Focuses on inputs, activities, outputs, implementation processes, continued relevance, likely results at outcome level | Focuses on outputs to inputs; results to cost; processes used to achieve results; overall relevance; impact, and sustainability. |
| 4 | Answers what activities were implemented and the results achieved. | Answers why and how results were achieved. Contributes to building theories and models for change. |
| 5 | Alerts managers to problems and provides options for corrective measures. | Provides managers with strategy and policy options. |
| 6 | Self-assessment by program managers, supervisors, community stakeholders, and donors. | Internal and/external analysis by program managers, supervisors, community stakeholders, donors, and/or external evaluators. |

## 3. Planning for Monitoring and Evaluation

Monitoring and evaluation should be part of planning process. It is very difficult to go back and set up monitoring and evaluation systems once things have begun to happen. You need to begin gathering information about performance and in relation to targets from the word go. The first information gathering should, in fact, take place when you do your needs assessment. This will give you the information you need against which to assess improvements over time.

When you do your planning process, you will set indicators. These indicators provide the framework for your monitoring and evaluation system. They tell you **what** you want to know and the kinds of information it will be useful to collect.



### i.     Different Kinds of Information – Quantitative and Qualitative

Information used in monitoring and evaluation can be classified as:

- Quantitative; or
- Qualitative.

Quantitative measurement tells you "how much or how many". How many people attended a workshop, how many people passed their final examinations, how much a publication cost, how many people were infected with Hepatitis, how far people have to walk to get water or firewood, and so on. Quantitative measurement can be expressed in absolute numbers (241 women in the sample are infected) or as a percentage (50% of households in the area have television aerials). It can also be expressed as a ratio (one doctor for every 30 000 people). One way or another, you get quantitative

(number) information by counting or measuring.

Qualitative measurement tells you how people feel about a situation or about how things are done or how people behave. So, for example, although you might discover that 50% of the teachers in a school are unhappy about the assessment criteria used, this is still qualitative information, not quantitative information. You get qualitative information by asking, observing, interpreting.

### ii.    How will we get Information?

Your methods for information collecting need to be built into your action planning. You should be aiming to have a steady stream of information flowing into the project or organisation about the work and how it is done, without overloading anyone. The information you collect must mean something: don't collect information to keep busy, only do it to find out what you want to know, and then make sure that you store the information in such a way that it is easy to access.

Usually you can use the reports, minutes, attendance registers, financial statements that are part of your work anyway as a source of monitoring and evaluation information. More examples include:

- Case studies
- Recorded observation
- Diaries
- Recording and analysis of important incidents (called "critical incident analysis")
- Structured questionnaires
- One-on-one interviews
- Focus groups
- Sample surveys
- Systematic review of relevant official statistics.

### iii.    Who should be involved?

Almost everyone in the organisation or project will be involved in some way in collecting information that can be used in monitoring and evaluation. This includes:

- The administrator who takes minutes at a meeting or prepares and circulates the attendance register;
- The fieldworkers who writes reports on visits to the field;
- The bookkeeper who records income and expenditure.

In order to maximize their efforts, the project or organisation needs to:

- Prepare reporting formats that include measurement, either quantitative or qualitative, of important indicators. For example, if you want to know about community participation in activities, or women's participation specifically, structure the fieldworkers reporting format so that s/he has to comment on this, backing up observations with facts. (Look at the fieldworker report format given later in this toolkit.)
- Prepare recording formats that include measurement, either quantitative or qualitative, of important indicators. For example, if you want to know how many men and how many women attended a meeting, include a gender column on your attendance list.
- Record information in such a way that it is possible to work out what you need to know. For example, if you need to know whether a project is sustainable financially, and which elements of it cost the most, then make sure that your bookkeeping records reflect the relevant information.

It is a useful principle to look at every activity and say: What do we need to know about this activity, both process (how it is being done) and product (what it is meant to achieve), and what is the easiest way to find it out and record it as we go along?

## 4. Indicators:

Indicators are measurable or tangible signs that something has been done or that something has been achieved. In some studies, for example, an increased number of television aerials in a community has been used as an indicator that the standard of living in that community has improved. An indicator of community empowerment might be an increased frequency of community members speaking at community meetings. If one were interested in the gender impact of, for example, drilling a well in a village, then you could use "increased time for involvement in development projects available to women" as an indicator. Common indicators for something like overall health in a community are the infant/child/maternal mortality rate, the birth rate, nutritional status and birth weights.

Indicators are an essential part of a monitoring and evaluation system because they are what you measure and/or monitor. Through the indicators you can ask and answer questions such as:

- Who?
- How many?
- How often?
- How much?

But you need to decide early on what your indicators are going to be so that you can begin collecting the information immediately. You cannot use the number of television aerials in a community as a sign of improved standard of living if you don't know how many there were at the beginning of the process.

### How to Develop Indicators

**Step 1: Identify the problem situation you are trying to address.**

The following might be problems:

- Economic situation (unemployment, low incomes etc.)
- Social situation (housing, health, education etc.)
- Cultural or religious situation (not using traditional languages, low attendance at religious services etc.)
- Political or organisational situation (ineffective local government, faction fighting etc.) There will be other situations as well.

**Step 2: Develop a vision for how you would like the problem areas to be/look. This will give you impact indicators.**

What will tell you that the vision has been achieved? What signs will you see that you can measure that will "prove" that the vision has been achieved? For example, if your vision was that the people in your community would be healthy, then you can use health indicators to measure how well you are doing. Has the infant mortality rate gone down? Do fewer women die during child-birth? If you can answer "yes" to these questions then progress is being made.

**Step 3: Develop a process vision for how you want things to be achieved. This will give you process indicators.**

If, for example, you want success to be achieved through community efforts and participation, then your process vision might include things like community health workers from the community trained and offering a competent service used by all; community organises clean-up events on a regular basis, and so on.

**Step 4: Develop indicators for effectiveness.**

For example, if you believe that you can increase the secondary school pass rate by upgrading teachers, then you need indicators that show you have been effective in upgrading the teachers

e.g. evidence from a survey in the schools, compared with a baseline survey.

Step 5: Develop indicators for your efficiency targets.
Here you can set indicators such as: planned workshops are run within the stated timeframe, costs for workshops are kept to a maximum of Rs. 500/- per participant, no more than 160 hours in total of staff time to be spent on organising a conference; no complaints about conference organisation etc.

With this framework in place, you are in a position to monitor and evaluate efficiency, effectiveness and impact.

## Group Activity (30 minutes)

Activity 1: Make a group of 4-5 people and perform the following activity:
Intervention/ project title (Example): Providing microcredit loans to enhance women economic empowerment
(The instructor will give an example of intervention and would ask the group of participants to develop monitoring plan to execute the project. Participants will be given a choice to identify problem of their own choice)
Activity: The group will be asked to develop a monitoring and evaluation plan for successfully implementation of the said project

## 5. Designing a monitoring and/or evaluation process

As there are differences between the design of a monitoring system and that of an evaluation process, we deal with them separately here.

Under **monitoring** we look at the process an organisation could go through to design a monitoring system.

Under **evaluation** we look at:

- **Purpose**
- **Key evaluation questions**
- **Methodology**.

**MONITORING**

When you design a monitoring system, you are taking a formative view point and establishing a system that will provide useful information on an ongoing basis so that you can improve what you do and how you do it.

### A. Designing A Monitoring System

Below is a step-by-step process you could use in order to design a monitoring system for `your organisation or project.

`Step 1:     At a workshop with appropriate staff and/or volunteers, and run by you or a consultant:

❏ Introduce the concepts of efficiency, effectiveness and impact
❏ Explain that a monitoring system needs to cover all three.

Step 2:     Generate a list of indicators for each of the three aspects: efficiency, effectiveness, and impact and choose the variables you are interested in to gather data on these

variables. So, for example, do you want to be able to link the age of a teacher with his/her qualifications in order to answer the question: Are older teachers more or less likely to have higher qualifications?

**Step 3:** Decide how you will collect the information you need (**see collecting information**) and where it will be kept (on computer, in manual files).

**Step 4:** Decide how often you will analyse the information – this means putting it together and trying to answer the questions you think are important.

**Step 5:** Analyze data and report.

## Group Activity (30 minutes)

Make a group of 4-5 people and perform the following activity:
Intervention: Providing microcredit loans to enhance women economic empowerment
Activity: Given the intervention develop key indicators to evaluate the impact and effectiveness of the project

## 6. Reporting

Whether you are monitoring or evaluating, at some point, or points, there will be a reporting process. This reporting process follows the stage of analysing information. You will report to different stakeholders in different ways, sometimes in written form, sometimes verbally and, increasingly, making use of tools such as PowerPoint presentations, slides and videos. Based on the data collected, organization may accumulate and interpret the data into organized formal report for drawing conclusion. Information collected in the report must be relevant and focused to derive desired results. Pictorial and graphical presentation of data and related information help to understand the details easily. There is a possibility that the collected data in the report needs to be represented at many places in different formats to fulfill the report goals. The ultimate goal is to determine all the issue and make suitable strategies to cope up with these issue or problems.

The report should always contain the executive summary of the work. This is generally kept before the actual report starts as it shows the summary of the desired business plan. Apart from the actual analysis the report should also depict the reasons of making this report and what advantages and benefits it can provide after successful implementation of business plans described inside the report.

It should also contain the methodology undertaken for conducting monitoring and evaluation, which shows the overall process adopted to create the report. It is important that the report contains the possibility of errors in any of the module or process so that immediate measures could be taken to cope up with these errors. The report should contain the description of the questionnaires used in analysis and the way it has been prepared. The methodology used in the interviews should also be elaborated and what was achieved in this should also be described.

Below is a table, suggesting different reporting mechanisms that might be appropriate for different stakeholders and at different times in project cycles. For writing tips, go to the toolkit on effective writing for organisations.

| Target group | Stage of project cycle | Appropriate format |
|---|---|---|
| Board | Interim, based on monitoring analysis | Written report |
| | Evaluation | Written report, with an Executive Summary, and verbal presentation from the evaluation team. |
| Management Team | Interim, based on monitoring analysis | Written report, discussed at management team meeting. |
| | Evaluation | Written report, presented verbally by the evaluation team. |
| Staff | Interim, based on monitoring | Written and verbal presentation at departmental and team levels. |

| | Evaluation | Written report, presented verbally by evaluation team and followed by in-depth discussion of relevant recommendations at departmental and team levels. |
|---|---|---|
| Beneficiaries | Interim, but only at significant points, and evaluation | Verbal presentation, backed up by summarised document, using appropriate tables, charts, visuals and audio-visuals. This is particularly important if the organisation or project is contemplating a major change that will impact on beneficiaries. |
| Donors | Interim, based on monitoring | Summarised in a written report. |
| | Evaluation | Full written report with executive summary or a special version, focused on donor concerns and interests. |
| Wider development community | Evaluation | Journal articles, seminars, conferences, websites. |

## 7. Data Collection and Data Management

The data management is the process of collecting, organizing, protecting, storage organizational data, its transformation to information and utilization in informed decision making. Once the project/program cope, indicators and its type defined and project/program informational needs, the next step is to plan for reliable collection and management of the data, which can be utilized as information.

An important consideration for data sources is the availability of reliable secondary source data. The secondary data means that data is not directly collected based on the project/programme objective, but which can nevertheless meet project/programme informational need. The availability of secondary data save huge budget for other important intervention.



Data management refers to the processes and systems for how project/programme will systematically store, manage and access N&E data. Data collection analysis and use of information is the most critical part of the M&E system. On the other side, poorly managed data wastes time, money and resources; incorrectly recorded data affects not only the quality and reliability of data, but also all the time and resources invested in

its analysis and use.

Data management should be user friendly, timely, practical and based on the project/programme needs.

Following all are the key considerations of data management.

### 1. Data Format

Organization should be able to develop formats as per the requirements and so that it is readily available, whenever it is required. The format in which data stored is an important aspect of data management, standardized format usage can improve the reliability of data. Mostly data received in many forms or filled questionnaires, which need to enter in some suitable digital form like excel spreadsheet, SPSS, STATA etc.

- Numerical (e.g. spreadsheet, database sets)
- Descriptive (Narrative report, FGD, key informant interview etc.)
- Visual (e.g. video, pictures, graphs maps, diagram)
- Audio (recording of interview)

### 2. Data Organization

A project/programme needs to organize its information into logical, easily, user friendly way to increase access and use. Data is usually organized by one or a combination of the following classification logic:

- Chronologically (e.g. month, quarter, year)
- By Geographical location
- By focus area (e.g. different objectives of projects)
- By format (e.g. project reports, donor reports, technical documents)

### 3. Data availability

Organization should make sure the data is easily available to the user. Moreover, the data is in the formats that can easily interpreted in to relevant information, whenever, required.
- Access: How permission is granted and controlled access data (e.g. shared drives, folders etc.), but it's important to controlled access to confidential information.
- Search: How data can be search through keywords.
- Archival: How data is stored and retrieved for future use.
- Dissemination: How data is shared in meaning form for clear stakeholders understanding for informed decision making.

### 4. Data security and legalities

Project/programme need to identify its organizational policy for security of confidential data. Foe data security legal agreement is required and data should be protected from non-authorized users.

### 5. Information technology

The use of computer technology to systematize the recording, storage and use of data is especially useful for project/programme with considerable volume of data. There are different software which can enable to stored and analyzed data like excel, SPSS STATA, MINTAB etc.

### 6. Data Quality Control

It's important to identify tools for data quality checking like spot checking, data cleaning and missing value treatment. It's very important to double check questionnaires before entry in any software and data entry operator should well trained and data entry formed tested and validation tools need applied before data entry.

### 7. Responsibility and accountability of data management

It's important to identify the individuals or team responsible for developing and maintaining the data

management system, assisting team members in its use and enforcing policies and regulations for confidential data and identify who is authorized to release and access of this data.

**Practical task**

Understanding of variable, easy and local data collection tools designing, Data collection and management practices. For understanding, an organization can develop monitoring format as given below:

### i.      Fieldworker Reporting Format (sample)

This format was used by an early childhood development learning center to measure the following indicators in the informal schools with which it worked:

- Increasingly skilled educated teachers.
- Increased amount of self-made equipment.
- Records up-to-date.
- Payments up-to-date.
- Attendance at committee meetings.

**FIELD VISIT REPORT**

Date:

Name of school:
Information obtained from:
Report completed by:
Field visit number: _____

1. List the skills used by the teachers in the time period of your visit to the school:

2. List self-made equipment visible in the school:

3. List the fundraising activities the school committee is currently involved in:

4. Record-keeping assessment:

| Kind of record | Up-to-date and accurate | Up-to-date but not very accurate | Not up-to-date | Not attempted |
|---|---|---|---|---|
| Bookkeeping | | | | |
| Petty cash | | | | |
| Filing | | | | |
| Correspond-ence | | | | |
| Stock control | | | | |
| Registers | | | | |

5. Number of children registered:

6. Average attendance over past two months:

7. Number of payments outstanding for longer than two months:

8. Average attendance at committee meetings over past two months:

9. Comments on this visit:

10. Comparison with previous field visit:

## 8. Taking action

Monitoring and evaluation have little value if the organisation or project does not act on the information that comes out of the analysis of data collected. Once you have the findings, conclusions and recommendations from your monitoring and evaluation process, you need to:

- Report to your stakeholders;
- Learn from the overall process;
- Make effective decisions about how to move forward; and, if necessary,
- Deal with resistance to the necessary changes within the organisation or project, or even among other stakeholders.

Monitoring and Evaluation Log frame template

| Project/Program Name | | | | | |
|---|---|---|---|---|---|
| **Indicator** | **Indicator Definition (Unit of measurement)** | **Data Collection methods/sources** | **Frequency and schedule** | **Responsibility** | **Assumption** |
| **Goal** | | | | | |
| | | | | | |
| **Outcome-1:** | | | | | |
| | | | | | |
| | | | | | |
| **Outcome-2:** | | | | | |
| | | | | | |
| **Output-1:** | | | | | |
| | | | | | |
| **Oupput-2:** | | | | | |
| | | | | | |
| **Input-1** | | | | | |
| **Input-2** | | | | | |
| **Input-3** | | | | | |