



Project/programme monitoring and evaluation (M&E), Guide

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Introduction

The purpose of this guide is to promote a common understanding and reliable practice of monitoring and evaluation (M&E) for MMBA project/programmes. It is meant to be a desktop reference that supplements the more concise and field-friendly MMBA Guide. Therefore, this guide is not intended to be read from cover to cover; the reader can refer to specific topics for more detail when needed.

Intended Audience

This guide is intended for people managing projects/programmes in organization. However, it has been designed to be understood by multiple other users as well, including staff and volunteers, donors and partners. Although it has been designed for use at all level, the basic principles can be applied to projects/programmes at other levels.

M&E importance

A well-functioning M&E system is a critical part of good project/programme management and accountability. Timely and reliable M&E provides information to:

- Support project/programme implementation with accurate, evidence-based reporting that informs management and decision-making to guide and improve project/programme performance.
- Contribute to organizational learning and knowledge sharing by reflecting upon and sharing experiences and lessons so that we can gain the full benefit from what we do and how we do it.
- Uphold accountability and compliance by demonstrating whether or not our work has been carried out as agreed and in compliance with standards and with any other donor requirements.
- Provide opportunities for stakeholder feedback, especially beneficiaries, to provide input into and perceptions of our work, modelling openness to criticism, and willingness to learn from experiences and to adapt to changing needs.
- Promote and celebrate our work by highlighting our accomplishments and achievements, building morale and contributing to resource mobilization.

PART-1

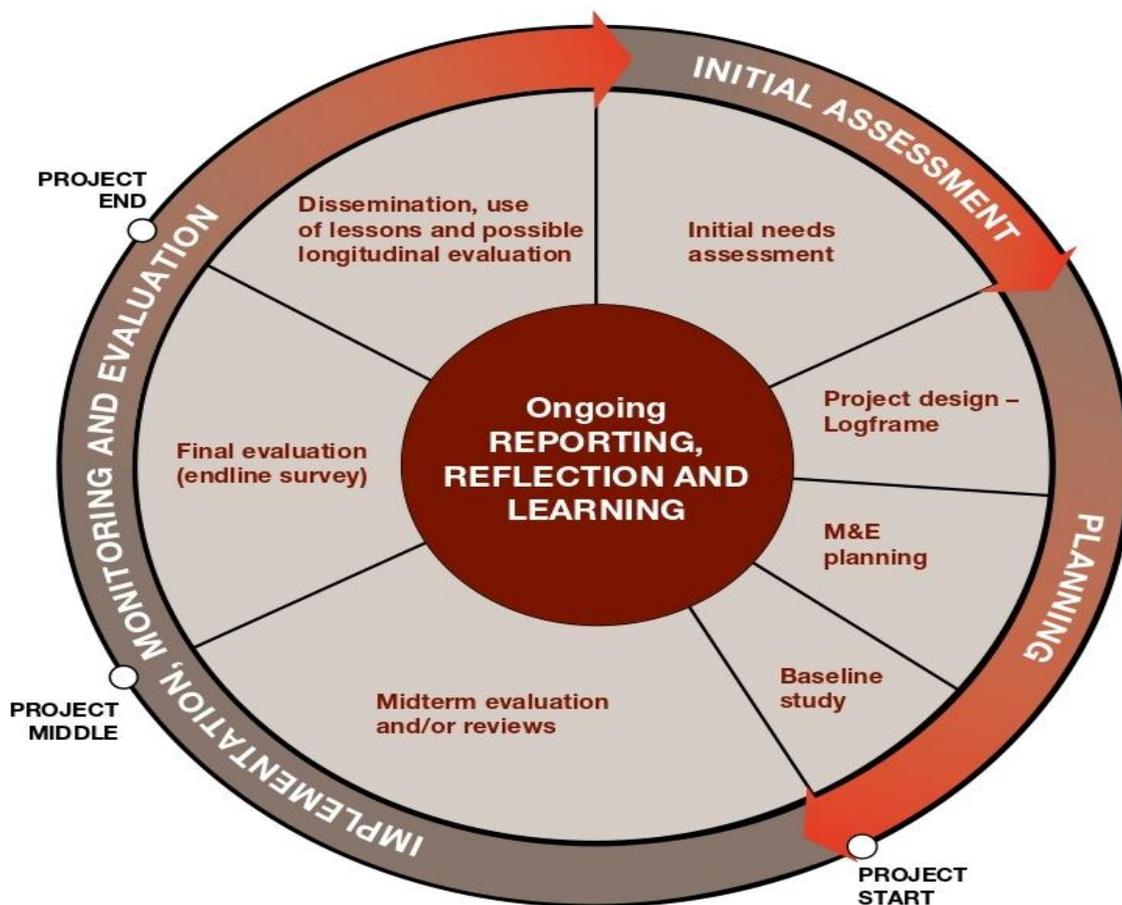
M&E concepts and considerations

Results-based management (RBM): RBM is an approach to project/programme management based on clearly defined results, and the methodologies and tools to measure and achieve them. RBM supports better performance and greater accountability by applying a clear, logical framework to plan, manage and measure an intervention with a focus on the results you want to achieve. By identifying in advance the intended results of a project/programme and how we can measure their progress, we can better manage a project/programme and determine whether a difference has genuinely been made for the people concerned.

Monitoring and evaluation (M&E) is a critical part of RBM. It forms the basis for clear and accurate reporting on the results achieved by an intervention (project or programme). In this way, information reporting is no longer a headache, but becomes an opportunity for critical analysis and organizational learning, informing decision-making and impact assessment.

M&E and the project/ programme cycle

Below diagram provides an overview of the usual stages and key activities in project/programme planning, monitoring, evaluation and reporting (PMER). We write “usual” stages because there is no one generic project/programme cycle, as each project/programme ultimately varies according to the local context and need.

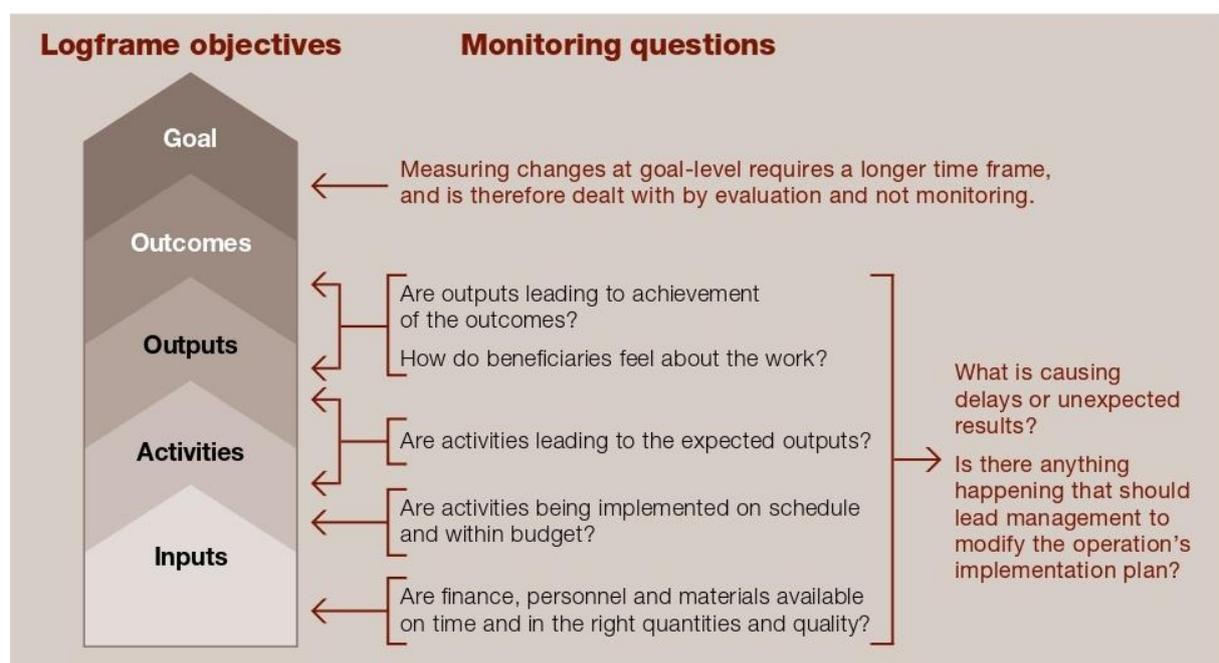


- » Initial needs assessment: This is done to determine whether a project/programme is needed and, if so, to inform its planning.
- » Log frame and indicators: This involves the operational design of the project/programme and its objectives, indicators, means of verification and assumptions.
- » M&E planning: This is the practical planning for the project/programme to monitor and evaluate the log frame's objectives and indicators.
- » Baseline study: This is the measurement of the initial conditions (appropriate indicators) before the start of a project/programme.
- » Midterm evaluation and/or reviews: These are important reflection events to assess and inform ongoing project/programme implementation.
- » Final evaluation: This occurs after project/programme completion to assess how well the project/programme achieved its intended objectives and what difference this has made.
- » Dissemination and use of lessons: This informs ongoing programming. However, reporting, reflection and learning should occur throughout the whole project/programme cycle, which is why these have been placed in the centre of the diagram.

Monitoring

Monitoring is the routine collection and analysis of information to track progress against set plans and check compliance to established standards. It helps identify trends and patterns, adapt strategies and inform decisions for project/programme management.

Below diagram summarizes key monitoring questions as they relate to the log-frame's objectives. Note that they focus more on the lower-level objectives – inputs, activities and (to a certain extent) outcomes. This is because the outcomes and goal are usually more challenging changes (typically in knowledge, attitudes and practice/behaviours) to measure, and require a longer time frame and a more focused assessment provided by evaluations.



A project/programme usually monitors a variety of things according to its specific informational needs. Below table provides a summary of the different types of monitoring commonly found in a project/programme monitoring system. It is important to remember that these monitoring types often occur simultaneously as part of an overall monitoring system.

Table: Common Type of monitoring
Results monitoring tracks effects and impacts: This is where monitoring merges with evaluation to determine if the project/programme is on target towards its intended results (outputs, outcomes, impact) and whether there may be any unintended impact (positive or negative). For example, a psychosocial project may monitor that its community activities achieve the outputs that contribute to community resilience and ability to recover from a disaster.
Process (activity) monitoring: Tracks the use of inputs and resources, the progress of activities and the delivery of outputs. It examines how activities are delivered – the efficiency in time and resources. It is often conducted in conjunction with compliance monitoring and feeds into the evaluation of impact.
Compliance monitoring: Ensures compliance with donor regulations and expected results, grant and contract requirements, local governmental regulations and laws, and ethical standards. For example, a shelter project may monitor that shelters adhere to agreed national and international safety standards in construction.
Context (situation) monitoring: Tracks the setting in which the project/programme operates, especially as it affects identified risks and assumptions, but also any unexpected considerations that may arise. It includes the field as well as the larger political, institutional, funding, and policy context that affect the project/programme. For example, a project in a conflict-prone area may monitor potential fighting that could not only affect project success but endanger project staff and volunteers.
Beneficiary monitoring: Tracks beneficiary perceptions of a project/programme. It includes beneficiary satisfaction or complaints with the project/programme, including their participation, treatment, access to resources and their overall experience of change. Sometimes referred to as beneficiary contact monitoring (BCM).
Financial monitoring: Accounts for costs by input and activity within predefined categories of expenditure. It is often conducted in conjunction with compliance and process monitoring. For example, a livelihoods project implementing a series of micro-enterprises may monitor the money awarded and repaid, and ensure implementation is according to the budget and time frame.
Organizational monitoring: Tracks the sustainability, institutional development and capacity building in the project/programme and with its partners. It is often done in conjunction with the monitoring processes of the larger, implementing organization.

Evaluation

Evaluation is an assessment, as systematic and objective as possible, of an ongoing or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.”

Evaluations involve identifying and reflecting upon the effects of what has been done, and judging their worth. Their findings allow project/programme managers, beneficiaries, partners, donors and

other project/programme stakeholders to learn from the experience and improve future interventions. Diagram below summarizes key evaluation questions as they relate to the log frame's objectives, which tend to focus more on how things have been performed and what difference has been made.



It is best to involve key stakeholders as much as possible in the evaluation process. This includes staff and volunteers, community members, local authorities, partners, donors, etc. Participation helps to ensure different perspectives are taken into account, and it reinforces learning from and ownership of the evaluation findings.

There is a range of evaluation types, which can be categorized in a variety of ways. Ultimately, the approach and method used in an evaluation is determined by the audience and purpose of the evaluation. Below Table summarizes key evaluation types according to three general categories. It is important to remember that the categories and types of evaluation are not mutually exclusive and are often used in combination.

Table: Summary of major evaluation types		
According to evaluation timing	According to who conducts the evaluation	According to evaluation technicality or methodology
<p>Formative evaluations occur during project/programme implementation to improve performance and assess compliance.</p> <p>Summative evaluations occur at the end of</p>	<p>Internal or self evaluations are conducted by those responsible for implementing a project/programme. They can be less expensive than external evaluations and help build staff capacity and ownership. However, they</p>	<p>Real-time evaluations (RTEs) are undertaken during project/ programme implementation to provide immediate feedback for modifications to improve ongoing implementation. Emphasis is on immediate lesson learning over impact evaluation or accountability. RTEs are particularly useful during emergency</p>

<p>project/programme implementation to assess effectiveness and impact.</p> <p>Midterm evaluations are formative in purpose and occur midway through implementation. Typically, this does not need to be independent or external, but may be according to specific assessment needs.</p> <p>Final evaluations are summative in purpose and are conducted at the completion of project/ programme implementation to assess how well the project/ programme achieved its intended objectives.</p> <p>Ex-post evaluations are conducted some time after implementation to assess long-term impact and sustainability.</p>	<p>may lack credibility with certain stakeholders, such as donors, as they are perceived as more subjective. These tend to be focused on learning lessons rather than demonstrating accountability.</p> <p>External or independent evaluations are conducted by evaluator(s) outside of the implementing team, lending it a degree of objectivity and often technical expertise. These tend to focus on accountability.</p> <p>Participatory evaluations are conducted with the beneficiaries and other key stakeholders, and can be empowering, building their capacity, ownership and support.</p> <p>Joint evaluations are conducted collaboratively by more than one implementing partner, and can help build consensus at different levels, credibility and joint support.</p>	<p>operations.</p> <p>Meta-evaluations are used to assess the evaluation process itself. Some key uses of meta-evaluations include: take inventory of evaluations to inform the selection of future evaluations; combine evaluation results; check compliance with evaluation policy and good practices; assess how well evaluations are disseminated and utilized for organizational learning and change, etc.</p> <p>Thematic evaluations focus on one theme, such as gender or environment, typically across a number of projects, programmes or the whole organization.</p> <p>Cluster/sector evaluations focus on a set of related activities, projects or programmes, typically across sites and implemented by multiple organizations.</p> <p>Impact evaluations focus on the effect of a project/ programme, rather than on its management and delivery. Therefore, they typically occur after project/ programme completion during a final evaluation or an ex-post evaluation. However, impact may be measured during project/ programme implementation during longer projects/ programmes and when feasible.</p>
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Baseline and end line studies

A baseline study (sometimes just called “baseline”) is an analysis describing the initial conditions (appropriate indicators) before the start of a project/programme, against which progress can be assessed or comparisons made. An end line study is a measure made at the completion of a project/programme (usually as part of its final evaluation), to compare with baseline conditions and assess change. We discuss baseline and endline studies together because if a baseline study is conducted, it is usually followed by another similar study later in the project/programme (e.g. an endline study) for comparison of data to determine impact.

Baseline and endline studies are not evaluations themselves, but an important part of assessing change. They usually contribute to project/programme evaluation (e.g. a final or impact evaluation), but can also contribute to monitoring changes on longer-term projects/programmes. The benchmark data from a baseline is used for comparison later in the project/programme and/or at its end (endline study) to help determine what difference the project/programme has made towards its objectives.

Often a survey is used during a baseline, but a baseline does not always have to be quantitative, especially when it is not practical for the project/ programme budget and time frame. Sometimes it may be more appropriate to use qualitative methods such as interviews and focus groups, or a combination of both quantitative and qualitative methods.

Comparing monitoring, evaluation, reviews and audits

The main difference between monitoring and evaluation is their timing and focus of assessment. Monitoring is ongoing and tends to focus on what is happening. On the other hand, evaluations are conducted at specific points in time to assess how well it happened and what difference it made. Monitoring data is typically used by managers for ongoing project/programme implementation, tracking outputs, budgets, compliance with procedures, etc. Evaluations may also inform implementation (e.g. a midterm evaluation), but they are less frequent and examine larger changes (outcomes) that require more methodological rigour in analysis, such as the impact and relevance of an intervention.

Recognizing their differences, it is also important to remember that both monitoring and evaluation are integrally linked; monitoring typically provides data for evaluation, and elements of evaluation (assessment) occur when monitoring. For example, monitoring may tell us that 200 community facilitators were trained (what happened), but it may also include post-training tests (assessments) on how well they were trained. Evaluation may use this monitoring information to assess any difference the training made towards the overall objective or change the training was trying to produce, e.g. increase condom use, and whether this was relevant in the reduction of HIV transmission.

A review is a structured opportunity for reflection to identify key issues and concerns, and make informed decisions for effective project/programme implementation. While monitoring is ongoing, reviews are less frequent but not as involved as evaluations. Also, MMBA typically uses reviews as an internal exercise, based on monitoring data and reports. They are useful to share information and collectively involve stakeholders in decision-making. They may be conducted at different levels within the project/programme structure (e.g. at the community level and at headquarters) and at different times and frequencies. Reviews can also be conducted across projects or sectors. It is best to plan and structure regular reviews throughout the project/programme implementation.

An audit is an assessment to verify compliance with established rules, regulations, procedures or mandates. Audits can be distinguished from an evaluation in that emphasis is on assurance and compliance with requirements, rather than a judgement of worth. Financial audits provide assurance on financial records and practices, whereas performance audits focus on the three E's – efficiency, economy and effectiveness of project/programme activities. Audits can be internal or external.

Below table summarizes the key differences between monitoring, evaluation and audits.

TABLE: Comparing key features of monitoring/review, evaluation and audit*			
	Monitoring and Reviews	Evaluations	Audits
Why?	Check progress, inform decisions and remedial action, update project plans, support accountability	Assess progress and worth, identify lessons and recommendations for longer-term planning and organizational learning; provide accountability	Ensure compliance and provide assurance and accountability
When?	Ongoing during project/ programme	Periodic and after project/ programme	According to (donor) requirement
Who?	Internal, involving project/ programme implementers	Can be internal or external to organization	Typically external to project/programme, but internal or external to organization
Link to logical hierarchy	Focus on inputs, activities, outputs and shorter-term outcomes	Focus on outcomes and overall goal	Focus on inputs, activities and outputs

M&E standards and ethics

M&E involves collecting, analysing and communicating information about people – therefore, it is especially important that M&E is conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by it.

International standards and best practices help to protect stakeholders and to ensure that M&E is accountable to and credible with them. The following is a list of key standards and practices for ethical and accountable M&E.

- M&E should uphold the principles and standards of the International level.
- M&E should respect the customs, culture and dignity of human subjects. This includes differences due to religion, gender, disability, age, sexual orientation and ethnicity. Cultural sensitivity is especially important when collecting data on sensitive topics (e.g. domestic violence or contraceptive usage), from vulnerable and marginalized groups (e.g. internally displaced people or minorities), and following psychosocial trauma.
- M&E practices should uphold the principle of “do no harm”. Data collectors and those disseminating M&E reports should be respectful that certain information can endanger or

embarrass respondents. “Under this circumstance, evaluators should seek to maximize the benefits and reduce any unnecessary harm that might occur, provided this will not compromise the integrity of the evaluation findings”. Participants in data collection have the legal and ethical responsibility to report any evidence of criminal activity or wrongdoing that may harm others (e.g. alleged sexual abuse).

- When feasible and appropriate, M&E should be participatory. Find ways to involve beneficiaries and build local capacities. Stakeholder consultation and involvement in M&E increases the legitimacy and utility of M&E information, as well as overall cooperation and support for and ownership of the process.
- An M&E system should ensure that stakeholders can provide comment and voice any complaints about the MMBA’s work. This also includes a process for reviewing and responding concerns/grievances.

Attention to gender and vulnerable groups

Data collection, analysis and reporting should strive for a balanced representation of any potentially vulnerable or marginalized groups. This includes attention to differences and inequalities in society related to gender, race, age, sexual orientation, physical or intellectual ability, religion or socioeconomic status. This is especially important for organization, therefore, it is important to collect and analyse data so that it can be disaggregated by sex, age and any other social distinctions that inform programme decision-making and implementation.

Particular attention should be given to a gender-balanced representation. Gender refers to economic, social, political and cultural differences (including opportunities) with being male or female. Due to social (gender) and biological (sex) differences, women and men can have different health behaviours and risks, as well as different experiences from health services. In most societies, women have less access to and control over health resources and service for themselves and their children. Gender norms can also affect men by assigning them roles that encourage risk-taking behaviour and neglect of their and their family’s health. Furthermore, gender interacts with other social differences, such as race, age and class.

Gender inequalities especially affect sexually transmitted infections among women and men. A gender-sensitive approach in health care recognizes both sex and gender differences and seeks to provide equal access to treatment and services for both women and men. Therefore, data collection and analysis should focus on how differences between women and men may affect equal access to health services. This can involve attention during data collection to access to health services among women versus men; such disaggregation of data by sex (and age) is a good starting point for such analysis.

Minimize bias and error

M&E helps uphold accountability, and should therefore be accountable in it-self. This means that the M&E process should be accurate, reliable and credible with stakeholders. Consequently, an important consideration when doing M&E is that of bias. Bias occurs when the accuracy and precision of a measurement is threatened by the experience, perceptions and assumptions of the researcher, or by the tools and approaches used for measurement and analysis.

Minimizing bias helps to increase accuracy and precision. Accuracy means that the data measures what it is intended to measure. For example, if you are trying to measure knowledge change following a training session, you would not just measure how many people were trained but also include some type of test of any knowledge change.

Similarly, precision means that data measurement can be repeated accurately and consistently over time and by different people. For instance, if we use a survey to measure people's attitudes for a baseline study, two years later the same survey should be administered during an endline study in the same way for precision.

As much as we would like to eliminate bias and error in our measurements and information reporting, no research is completely without bias. Nevertheless, there are precautions that can be taken, and the first is to be familiar with the major types of bias we encounter in our work.

PART-2

Six key steps for project/programme M&E

The six key M&E steps discussed in Part 2 are:

1. **Identify the purpose and scope of the M&E system**
2. **Plan for data collection and management**
3. **Plan for data analysis**
4. **Plan for information reporting and utilization**
5. **Plan for M&E human resources and capacity building**
6. **Prepare the M&E budget**

Key reminders for all M&E steps

- The M&E steps are interconnected and should be viewed as part of a mutually supportive M&E system. We identify separate steps to help organize and guide the discussion. In reality, these steps are not necessarily separate, but inter-related, often happening simultaneously. For example, what data is collected will largely depend on the data needed to be reported – one step is integral to the other step and would be planned at the same time.
- M&E planning should be done by those who use the information. Involvement of project/programme staff and key stakeholders ensures feasibility, understanding and ownership of the M&E system. M&E planning should not be limited to a headquarters' office, but informed by the realities and practicalities of the field. The leadership of an experienced project/programme manager, ideally experienced in M&E, is very helpful to ensure M&E activities are well adapted and within the project/programme's time frame and capacity.
- Begin planning for your M&E system immediately after the project/programme design stage. Early M&E planning allows for preparation of adequate time, resources and personnel before project/programme implementation. It also informs the project/programme design process itself as it requires people to realistically consider how practical it is to do everything they intend to measure. Sometimes, the timing of the M&E planning is determined by donor requirements (e.g. at the proposal stage), and additional M&E planning may occur after a project/programme is approved and funded.
- A project/programme M&E system builds upon the initial assessment and project/programme design. At MMBA, it is based on the short-term, intermediate and long-term objectives and their indicators identified in the project's log frame, the informational requirements and expectations of stakeholders, as well as other practical considerations, such as project/programme budget and time frame.
- When appropriate, it is useful to build on existing M&E capacities and practices. New M&E processes may not only burden the local capacity but they can alienate local stakeholders. If existing M&E practices are accurate, reliable and timely, this can save time/resources and build ownership to coordinate with and complement them.
- Particular attention should be given to stakeholder interests and expectations throughout the M&E process. In addition to local beneficiaries, it is also important to coordinate and address interests and concerns from other stakeholders.

- M&E should be tailored and adjusted to the real-world context throughout the project/programme's life cycle. Projects/programmes operate in a dynamic setting, and M&E activities need to adapt accordingly. Objectives may change, as will the M&E system as it refines its processes and addresses arising problems and concerns. Like a project/programme itself, the M&E system should be monitored, periodically reviewed and improved upon.
- Only monitor and evaluate what is necessary and sufficient for project/programme management and accountability. It takes time and resources to collect, manage and analyse data for reporting. Extra information is more often a burden than a luxury. It can distract attention away from the more relevant and useful information. It can also overload and strain a project/programme's capacity and ability to deliver the very services it is seeking to measure!

Step 1 – Identify the purpose and scope of the M&E system

The purpose and scope of the M&E system answers, “Why do we need M&E and how comprehensive should it be?” It serves as a reference point for the M&E system, guiding key decisions such as informational needs, methodological approaches, capacity building and allocation of resources. The following outlines some key considerations when determining an M&E system's purpose and scope.

Review the project/programme's operational design (logframe)

For MMBA projects/programmes, the logframe is the foundation on which the M&E system is built. The logframe is a summary of the project/programme's operational design, based on the situation and problem analysis conducted during the project/ programme's design stage. It summarizes the logical sequence of objectives to achieve the project/programme's intended results (activities, outputs, outcomes and goal), the indicators and means of verification to measure these objectives, and any key assumptions.

A well-developed logframe reflects the informational needs of the project/programme. For example, the objectives and informational needs of a project/programme during an emergency operation will have very different logframe and related M&E requirements than a longer-term development project/programme.

When reviewing the logframe, it is important to check it for logic and relevance. Often, in the rush to start a project/programme, there may be oversights in the development of a logframe. Sometimes it is prepared in an office or by people far removed from the project/programme setting. The logframe is not a static “blueprint”, but should be reassessed and revised according to the realities and changing circumstances in the field. This is particularly true in humanitarian responses, where populations and needs can rapidly change in a short time frame. However, changes should only be made after careful consideration and consultation with key stakeholders and in compliance with any donor requirements.

An important consideration in the logframe is the use of industry-recognized, standard indicators. These can make a big difference in the subsequent M&E. Standard indicators may not only save time in designing indicators but an important advantage is that they typically come with accepted, standard definitions to ensure they are measured reliably and consistently, and measurement methods are usually well developed and tested. Another key advantage is that standard indicators can be compared over time, place and projects/programmes. Finally, industry-recognized indicators contribute to credibility and legitimacy across stakeholders.

However, there are limitations to how much indicators can be standardized, and they can be inflexible and unrepresentative of the local context. Also, consideration should be given to the project/programme's capacity (financial or human) to measure certain standard indicators according to international methods and best practices. Nevertheless, industry-recognized, standard indicators can be very useful, and often it is best to use a combination of standardized indicators and those designed specifically for the local context.

Identify key stakeholder informational needs and expectations

Planning an M&E system based on stakeholder needs and expectations helps to ensure understanding, ownership and use of M&E information. It is essential to have a clear understanding of the priorities and information needs of people interested in or affected by the project/programme. This includes stakeholder motivations, experience and commitment, as well as the political and other constraints under which various stakeholders operate. It is especially important that local knowledge is sought when planning M&E functions to ensure that they are relevant to and feasible in the local context, and that M&E information is credible, accepted and more likely to be supported.

Typically, the MMBA's projects/programmes involve multiple stakeholders at different levels. A stakeholder assessment is conducted during the planning stage of a project/programme. This initial assessment can inform M&E planning, but for planning the M&E system it is recommended to focus more specifically on the informational needs and expectations of the key stakeholders.

Identify any M&E requirements

Important informational needs worth specific attention are those that arise from any donor guidelines and requirements, governmental laws and regulations, and internationally-agreed-upon standards. These requirements can include very detailed procedures, formats and resources, and are often non-negotiable. Therefore, it is best to identify and plan for them early in the M&E planning process.

Scope of major M&E events and functions

The scope of the M&E system refers to its scale and complexity. It can be highly complex with a variety of activities and requiring considerable expertise and resources, or it can be relatively simple, relying on internal resources and capacities.

Each of the topics discussed above plays a key role in determining the scope of the M&E system. For example, the complexity of a project/programme's design (e.g. how many and the type of outcomes it seeks to achieve) can have a significant impact on the scale and complexity of the M&E system. Likewise, donor requirements can largely determine the precision and methodological rigour needed in the M&E system. Some other important considerations for the scope (size) of the M&E system include:

- The geographic scale of the project/programme area, including accessibility to programme areas
- The demographic scale of the project/programme, including specific target populations and their accessibility
- The time frame or duration of the project/programme, including any pre- and post-project M&E needs

- The available human resources and budget.

Scoping the M&E system helps to identify major M&E activities and events – the overall scope (size) of the M&E system. While specific M&E functions should be addressed in more detail later in the planning process, an initial inventory of key activities at this stage provides an important overview or “map” to build upon for planning for funding, technical expertise, capacity building, etc.

Step 2 – Plan for data collection and management

Once you have defined the project/programme’s informational needs, the next step is to plan for the reliable collection and management of the data so it can be efficiently analysed and used as information. Both data collection and management are firmly linked as data management begins the moment it is collected.

Develop a M&E Plan table

An M&E plan is a table that builds upon a project/programme’s logframe to detail key M&E requirements for each indicator and assumption. It summarizes key indicator (measurement) information in a single table: a detailed definition of the data, its sources, the methods and timing of its collection, the people responsible and the intended audience and use of the data.

The M&E plan can be formatted differently, according to the planning requirements for project/programme management. For instance, columns can be added, such as a budget column, a separate column to focus on data sources, or two columns to distinguish people responsible for data collection versus data analysis. Often the project/programme donor will require a specific M&E plan format.

The M&E plan should be completed during the planning stage of a project/programme (before implementation). This allows the project/programme team to cross-check the logframe and ensure that the indicators and scope of work they represent in both project/programme implementation and data collection, analysis and reporting are realistic to field realities and team capacities.

It is best that the M&E plan is developed by those who will be using it. Completing the table requires detailed knowledge of the project/programme and context provided by the local project/programme team and partners. Their involvement also contributes to data quality because it reinforces their understanding of what data they are to collect and how it will be collected.

Assess the availability of secondary data

An important consideration for data sources is the availability of reliable secondary data. Secondary data refers to data that is not directly collected by and for the project/programme, but which can nevertheless meet project/programme informational needs. (In contrast, primary data is collected directly by the project/ programme team.

Examples of secondary data include:

- Demographic statistics from the government Census, NSSOs, Central/State Ministries or departments etc.
- Maps and aerial photographs of degraded land from the forest department, agriculture department, water resources department or concern authorities.
- Relevant National, international journals, Case studies, surveys, research by any other

national or international certified agencies or universities/colleges etc.

- Information on health, food security and nutritional level from UNICEF and the United Nations' Food and Agriculture Organization and the World Food Programme.

Secondary data is important to consider because it can save considerable time and expense. It can also be used to help triangulate (see below) data sources and verify (prove) primary data and analysis collected directly as part of the project/programme.

However, it is critical to ensure that secondary data is relevant and reliable. As secondary data is not designed specifically for project/programme needs, it is important to avoid the trap of using irrelevant secondary data just because it is available. Check the relevance of secondary data for:

- **Population:** Does it cover the population about which you need data?
- **Time period:** Does it cover the same time period during which you need data?
- **Data variables:** Are the characteristics measured relevant for what you are researching? For example, just because the data may be on road safety, if your project/programme focuses on the use of motorcycle helmets, a road safety study on deaths due to drunken driving may not be relevant (unless they separate deaths for those cases in which it involved a motorcyclist with or without a helmet).

Even if the data measures what you need, it is important to ensure that the source is credible and reliable. It is important to check that any data source (primary or secondary) is accurate (measures what it is intended to measure) and precise (the data measurement can be repeated accurately and consistently over time and by different people.) Two key considerations for secondary data include:

- **Reputation:** How credible and respected are the people (organization) that commissioned the data and the authors who conducted the research and reported the data? Identify why the secondary data was initially collected and whether there may have been any motive or reason (e.g. political or economic) that it could bias the data. It can be helpful to check with other organizations and stakeholders to assess this. If possible, it can also help to check the credentials of the researchers/authors of the data and report – e.g. their educational background, related reports and systematic assessments, whether they are accredited or belong to industry associations, etc.
- **Rigour:** Were the methods used to collect, analyse and report on the data technically accurate? Check that there is a description of the research methods that provides sufficient information about the data collection, management and quality control, analysis, and interpretation so that its worth or merit can be determined. (If you do not feel capable to do this, then seek out the expertise of someone competent in research methods to assist you.)

Determine the balance of quantitative and qualitative data

When planning for data collection, it is important to plan for the extent quantitative and qualitative data will be used.

Quantitative data is often considered more objective and less biased than qualitative data – especially with donors and policy-makers. Because qualitative data is not an exact measurement of what is being studied, generalizations or comparisons are limited, as is the credibility of observations and judgements. However, quantitative methods can be very costly, and may exclude explanations and human voices about why something has occurred and how people feel about it.

Both quantitative and qualitative methods have subjective (biased) and objective (unbiased) characteristics. Therefore, a mixed-methods approach is often recommended that can utilize the advantages of both, measuring what happened with quantitative data and examining how and why it happened with qualitative data. When used together, qualitative methods can uncover issues during the early stages of a project/programme that can then be further explored using quantitative methods, or quantitative methods can highlight particular issues to be examined in-depth with qualitative methods. For example, interviews (a qualitative method) may reveal that people in a community are concerned about hunger, and a sample of infants' weights (a quantitative method) may substantiate that mass-wasting and malnutrition are indeed prevalent in the community.

Triangulate data collection sources and methods

Triangulation is the process of using different sources and/or methods for data collection. Combining different sources and methods (mixed methods) helps to cross-check data and reduce bias to better ensure the data is valid, reliable and complete. The process also lends to credibility if any of the resulting information is questioned. Triangulation can include a combination of primary and secondary sources, quantitative and qualitative methods, or participatory and non-participatory techniques, as follows:

- **Example of triangulating data sources:** When determining community perception of a cash-for-work project, do not just include participants selected for the project, but also some who did not take part as they may have a different perspective (e.g. on the selection process for participating in the project). Also, include the views of the project staff, partners and other local groups working in the project/programme area.
- **Example of triangulating data collection methods:** A household survey is conducted to determine beneficiary perception of a cash-for-work project, and it is complemented by focus group discussion and key informant inter-views with cash-for-work participants as well as other community members.

Determine sampling requirements

A sample is a subset of a whole population selected to study and draw conclusions about the population as a whole. Sampling (the process of selecting a sample) is a critical aspect of planning the collection of primary data. Most projects/ programmes do not have sufficient resources to measure a whole population (a census), nor is it usually necessary. Sampling is used to save time and money by collecting data from a subgroup to make generalizations about the larger population.

The process of sampling includes the following steps:

1. Define the specific issues that you will be measuring – this will inform what methodology will be used to address the selected issues. For example, in determining a survey on sanitation knowledge, attitude and practice/behaviour could be used to assess the extent to which behaviour has been changed by activities that raise awareness of sanitation.
2. Determine the appropriate sampling method – unless primary data collection includes the total population studied, one of two broad types of samples will be used, depending on the degree of accuracy and precision required:
 - a. Random (probability) samples are quantitatively determined and use statistics to make more precise generalizations about the larger population.
 - b. Purposeful (non-random) samples are qualitatively determined, often based on

convenience or some other factor; they typically involve smaller, targeted samples of the population, but because they do not use statistics they are less reliable for generalizations about the larger population.

Random samples are more complex, laborious and costly than purposeful samples, and are not necessary for qualitative methods such as focus group discussions. However, random samples are often expected in larger projects/ programmes because they are more precise and can minimize bias – donors frequently require random sampling when using baseline and endline surveys. As discussed above, a mixed-methods approach may be best, combining both sample methods for quantitative and qualitative data collection.

In addition to these two broad types of sampling methods, there is a variety of specific sampling designs, such as simple random sampling, stratified random sampling, cluster sampling, multi-stage sampling, convenience sampling, purposeful sampling, and respondent-driven sampling. While we are unable to go into detail about the different sampling designs now, it is important to understand that the design choice impacts the overall sample size. In summary, certain sample designs are selected over others because they provide a sample size and composition that is best suited for what is being studied.

3. Define the sample frame – a list of every member of the population from which a sample is to be taken (e.g. the communities or categories of people – women, children, refugees, etc).
4. Determine the sample size – the sample size is calculated using equations specific to the type of survey (whether descriptive/one-off or comparative/base-line-endline surveys – both discussed below) and to the indicator type used as a basis for the calculation (whether a mean/integer or proportion/percentage).

There are several key design variables for each of these equations that need to be determined, each of which affects sample size. While there are no “right” values for these design variables, there are accepted standards and “rules of thumb”. For example, for descriptive/one-off surveys, the key design variables include significance (also known as confidence level) and the margin of sampling error.²⁰ The accepted standard varies between 90 and 95 percent for the confidence level and between 5 and 10 per cent for the margin of sampling error.

While calculating sample sizes is a scientific exercise (understanding which equations to use and what values to assign the key design variables), shaping the sample size to “fit” a given project/programme contains a fair amount of art, as manipulating the values of the key design variables involves trade-offs that affect both survey implementation and analysis. It is strongly recommended that an experienced sampling technician is consulted.

Prepare for any surveys

Surveys are a common method of gathering data for project/programme M&E. Surveys can be classified in a number of ways, such as according to the specific method used – e.g. in person, by mail, telephone, etc. They generally use inter-view techniques (questions or statements that people respond to), measurement techniques (e.g. infant’s weight to determine nutritional status), or a combination of both. Unless a complete population is to be surveyed, some form of sampling (discussed above) is used with surveys.

One important distinction for surveys can be made by the manner in which the survey questions are asked:

- Semi-structured surveys use open-ended questions that are not limited to defined answers

but allow respondents to answer and express opinions at length – e.g. “How useful is the first-aid kit to your family?” Semi-structured surveys allow more flexibility in response, but take more skill and cost in administering – interviewers must be experienced in probing and extracting information.

- Structured surveys use a standardized approach to asking fixed (closed-ended) questions that limit respondents’ answers to a predefined set of answers, such as yes/no, true/false, or multiple choices – e.g. “Did you receive the first-aid kit?” While pre-coded questions can be efficient in time and useful for statistical analysis, they must be carefully designed to ensure that questions are understood by all respondents and are not misleading. Designing a questionnaire may seem commonsense, but it involves a subtlety that requires experience.

Another important distinction for surveys can be made based on the timing and function of the survey:

- Descriptive survey seeks to obtain representative data about a population at a single point of time, without making comparisons between groups (such as a one-off needs assessment).
- A comparative survey seeks to compare the results between groups – either the same population at two points in time (e.g. baseline-endline design), or two distinct groups at the same point in time (e.g. treatment control groups).

Whatever survey method is used, it is critical to understand how it affects the way in which sample sizes are calculated. For example, descriptive surveys need to account for a margin of error when calculating the sample size, while comparative surveys require a power calculation to determine the best sample size.

It is beyond the scope of this guide to adequately cover the topic of surveys, and interested readers are encouraged to refer to other resources. In addition to survey design, implementation and analysis, it is useful to also have an understanding of sampling (discussed above) and statistical analysis. In short, it may be advisable to seek expert advice/assistance if a survey is to be used.

Prepare specific data collection methods/tools

The M&E plan summarizes data collection methods and tools, but these still need to be prepared and ready for use. Sometimes methods/tools will need to be newly developed but, more often, they can be adapted from elsewhere. Some additional practical considerations in planning for data collection include:

- Prepare data collection guidelines: This helps to ensure standardization, consistency and reliability over time and among different people in the data collection process. Double-check that all the data required for indicators is being captured through at least one data source.
- Pre-test data collection tools: This helps to detect problematic questions or techniques, verify collection time, identify potential ethical issues and build the competence of data collectors.
- Translate and back-translate data collection tools: This ensures that the tools are linguistically accurate, culturally compatible and operate smoothly.
- Train data collectors: This includes an overview of the data collection system, data collection techniques, tools, ethics, culturally appropriate interpersonal communication skills and practical experience in collecting data.

- Address ethical concerns: Identify and respond to any concerns expressed by the target population. Ensure that the necessary permission or authorization has been obtained from local authorities that local customs and attire (clothing) are respected, and that confidentiality and voluntary participation are maintained.

Establish stakeholder complaints and feedback mechanisms

A complaints and feedback mechanism provides a means for stakeholders to provide comment and voice complaints about the MMBA's work. It is a particularly important data collection topic worth special mention. Complaints and feedback mechanisms provide valuable insights and data for the ongoing monitoring and periodical evaluation of a project/programme. They can help to anticipate and address potential problems, increase accountability and credibility, and reinforce morale and ownership.

It is important to recognize that stakeholder complaints and feedback can be internal or external – (from those involved in project/programme management and implementation versus those affected by project implementation). Most importantly, beneficiaries (the target population) should have the opportunity to express their perceptions and file any grievances about the services they receive. However, it is also important for other stakeholders, such as project/ programme staff, volunteers and partners, to have the opportunity to file complaints and provide feedback.

It is also important to understand that stakeholder feedback can be positive or negative. It can be just as useful and empowering for stakeholders to express positive feedback, lessons learned, and reflections, as it is grievances. However, at a minimum, projects/programmes should have a formal complaints mechanism for stakeholders to legally file grievances.

A complaints mechanism is an established set of procedures for stakeholders to safely voice grievances or concerns that are addressed objectively against a standard set of rules and principles. It models accountability and commitment to the MMBA's stakeholders – especially our moral and legal responsibility to respond to any wrongdoing or misconduct, e.g. issues of sexual exploitation, abuse of power, and corruption.

There is no one approach (method) for stakeholder complaints and feedback – approaches should be adapted to specific stakeholders. Communicating and dealing with complaints and feedback differ across community and organizational cultures. Complaints and feedback can be written or oral, function directly or through intermediaries (third parties), individually or through groups, personally or anonymously. Specific examples range from a comment box and posted mail feedback to community meetings.

Establish project/programme staff/volunteers review mechanisms

While monitoring and assessing the project/programme context and implementation is critical, project/programme staff and volunteer performance information is an important source of data for ongoing project/programme monitoring and management.

Staff/volunteer time management and performance reviews are typically part of the human resources department of the implementing organization. As such, it is important to ensure that any project/programme-specific monitoring systems are organizationally consistent and in accordance with human resources processes and procedures.

Plan for data management

Data management refers to the processes and systems for how a project/programme will

systematically and reliably store, manage and access M&E data. It is a critical part of the M&E system, linking data collection with its analysis and use. Poorly managed data wastes time, money and resources; lost or incorrectly recorded data affects not only the quality and reliability of the data but also all the time and resources invested in its analysis and use.

Data management should be timely and secure, and in a format that is practical and user-friendly. It should be designed according to the project/programme needs, size and complexity. Typically, project/programme data management is part of an organization's or project/programme's larger data management system and should adhere to any established policies and requirements.

The following are seven key considerations for planning a project/programme's data management system:

1. Data format: The format in which data is recorded, stored and eventually reported is an important aspect of overall data management. Standardized formats and templates improve the organization and storage of data. Generated data comes in many forms, but are primarily:
 - a. Numerical (e.g. spreadsheets, database sets)
 - b. Descriptive (narrative reports, checklists, forms)
 - c. Visual (e.g. pictures, video, graphs, maps, diagrams)
 - d. Audio (recordings of interviews, etc).

Data formats can be physical, such as written forms stored in an office filing cabinet, or electronic, such as a spreadsheet stored in a computer database. Sometimes, donors or key partners, such as government ministries, may define how the data should be recorded and stored. Whatever format, it is important that it is user-friendly, whether its user is a community member, field staff member or project manager.

2. Data organization: A project/programme needs to organize its information into logical, easily understood categories to increase its access and use. Data organization can depend on a variety of factors and should be tailored to the users' needs. Data is typically organized by one or a combination of the following classification logic:
 - a. Chronologically (e.g. month, quarter, year)
 - b. By location
 - c. By content or focus area (e.g. different objectives of a project/ programme)
 - d. By format (e.g. project reports, donor reports, technical documents).
3. Data availability: Data should be available to its intended users and secure from unauthorized use. Key considerations for data availability include:
 - a. Access: How permission is granted and controlled to access data (e.g. shared computer drives, folders, intranets). This includes the classification of data for security purposes (e.g. confidential, public, internal, and departmental).
 - b. Searches. How data can be searched and found (e.g. according to keywords).

- c. Archival: How data is stored and retrieved for future use.
 - d. Dissemination: How data is shared with others.
4. Data security and legalities: Projects/programmes need to identify any security considerations for confidential data, as well as any legal requirements with governments, donors and other partners. Data should be protected from non-authorized users. This can range from a lock on a filing cabinet to computer virus and firewall software programs. Data storage and retrieval should also conform to any privacy clauses and regulations for auditing purposes.
 5. Information technology (IT): The use of computer technology to systematize the recording, storage and use of data is especially useful for projects/programmes with considerable volumes of data, or as part of a larger programme for which data needs to be collected and analysed from multiple smaller projects/programmes. Some examples of IT for data management in M&E include:
 - a. Handheld personal digital assistants (PDAs) to record survey findings
 - b. Excel spreadsheets for storing, organizing and analysing data
 - c. Microsoft Access to create user-friendly databases to enter and analyse data
 - d. SharePoint, a web-based intranet to store, share and discuss M&E data
 - e. An integrated planning management system with an internet plat-form for inputting, organizing, analysing and sharing information

IT can help to reorganize and combine data from various sources, highlighting patterns and trends for analysis and to guide decision-making. It is also very effective for data and information sharing with multiple stakeholders in different locations. However, the use of IT should be balanced with the associated costs for the computers and software, resources to maintain and safeguard the system, and the capacity among intended users.

6. Data quality control: It is important to identify procedures for checking and cleaning data, and how to treat missing data. In data management, unreliable data can result from poor typing of data, duplication of data entries, inconsistent data, and accidental deletion and loss of data. These problems are particularly common with quantitative data collection for statistical analysis (also discussed in Section 1.9).
7. Responsibility and accountability of data management: It is important to identify the individuals or team responsible for developing and/or maintaining the data management system, assisting team members in its use and enforcing any policies and regulations. Also, for confidential data, it is important to identify who authorizes the release/access of this data.

Use an indicator tracking table (ITT)

An ITT is an important data management tool for recording and monitoring indicator performance to inform project/programme implementation and management. It differs from an M&E plan because while the M&E plan prepares the project/ programme for data collection on the indicators, the ITT is where the ongoing measurement of the indicators is recorded. The project/programme management report then explains the performance of the indicators reflected in the ITT.

The ITT has three primary sections:

1. Project/programme background information, such as name, location, dates, etc.
2. Overall project/programme indicators are indicators that may not specifically be in the project/programme's logframe but are important to report for strategic management.
3. Logframe indicators are aligned with their respective objectives from the log-frame, and are the greater part of the ITT.

Use a risk log (table)

While the ITT tracks planned indicator performance, it is also important to track any risks that threaten project/programme implementation. Such risks can include those identified and expressed as assumptions in the project/programme logframe, as well as any unexpected risks that may arise.

Step 3 – Plan for data analysis

Data analysis is the process of converting collected (raw) data into usable information. This is a critical step of the M&E planning process because it shapes the information that is reported and its potential use. It is really a continuous process throughout the project/programme cycle to make sense of gathered data to inform ongoing and future programming. Such analysis can occur when data is initially collected, and certainly when data is explained in data reporting.

Data analysis involves looking for trends, clusters or other relationships between different types of data, assessing performance against plans and targets, forming conclusions, anticipating problems and identifying solutions and best practices for decision-making and organizational learning. Reliable and timely analysis is essential for data credibility and utilization.

Develop a data analysis plan

There should be a clear plan for data analysis. It should account for the time frame, methods, relevant tools/templates, people responsible for, and purpose of the data analysis. A data analysis plan may take the form of a separate, detailed written document, or it can be included as part of the overall project/ programme management and M&E system – for instance, it can be captured in the M&E plan.

- **Purpose of data analysis:** What and how data is analysed is largely determined by the project/programme objectives and indicators and ultimately the audience and their information needs (see Section 2.1.1). Therefore, data analysis should be appropriate to the objectives that are being analysed, as set out in the project/programme logframe and M&E plan.
- **Frequency of data analysis:** Data analysis has to be given sufficient time. The time frame for data analysis and reporting should be realistic for its intended use. Accurate information is of little value if it is too late or infrequent to inform project/programme management; a compromise between speed, frequency and accuracy may be necessary. An important reminder is to avoid allocating excessive time for data collection (which can lead to data overload), while leaving insufficient time for analysis. The frequency of data analysis will largely depend on the frequency of data collection and the informational needs of users – typically reflected by the reporting schedule. A schedule for data analysis can coincide with key reporting events, or be done separately according to project/programme needs.

Whenever data analysis is scheduled, it is important to remember that it is not an isolated event at the end of data collection, but is ongoing from project/ programme start and during ongoing monitoring and then evaluation events.

- **Responsibility for data analysis:** Roles and responsibilities for data analysis will depend on the type and timing of analysis. Analysis of monitoring data can be undertaken by those who collect the data, e.g. field monitoring officers or other project/programme staff. Ideally there would also be an opportunity to discuss and analyse data in a wider forum, including other project/programme staff and management, partner organizations, beneficiaries and other stakeholders.
- **Process for data analysis** Data analysis can employ a variety of forums tailored to the project/programme needs and context, including meetings, e-mail correspondence, dialogue through internet platforms (e.g. Google sheets) and conference calls.

Follow the key data analysis stages

There is no one recipe for data analysis, but five key stages can be identified: 1) Data preparation; 2) Data analysis; 3) Data presentation; 4) Data verification; and 5) Recommendations and action planning. The remainder of this section discusses these five stages. One common consideration throughout all stages of data analysis is to identify any limitations, biases and threats to the accuracy of the data and its analysis.

1. Data preparation

Data preparation, often called data “reduction” or “organization”, involves getting the data into a more usable form for analysis. Data should be prepared according to its intended use, usually informed by the logframe’s indicators. Typically, this involves cleaning, editing, coding and organizing “raw” quantitative and qualitative data as well as cross-checking the data for accuracy and consistency.

As quantitative data is numerical, it will need to be prepared for statistical analysis. It is also at this stage that quantitative data is checked, “cleaned” and corrected for analysis. A number of tools and guidelines are available to assist with data processing, and are best planned for with technical expertise.

For qualitative data (descriptive text, questionnaire responses, pictures, maps, videos, etc.), it is important to first identify and summarize key points. This may involve circling important text, summarizing long descriptions into main ideas (writing summaries in the paper’s margin), or highlighting critical statements, pictures or other visuals. Key points can then be coded and organized into categories and subcategories that represent observed trends for further analysis.

2. Data analysis (findings and conclusions)

Data analysis can be descriptive or interpretive. Descriptive analysis involves describing key findings – conditions, states and circumstances uncovered from the data – while interpretive analysis helps to provide meaning, explanation or causal relationship from the findings. Descriptive analysis focuses on what happened, while interpretive analysis seeks to explain why it occurred – what might be the cause(s). Both are interrelated and useful in information reporting as descriptive analysis informs interpretive analysis.

It is also important when analysing data to relate analysis to the project/programme’s objectives and respective indicators. At the same time, analysis should be flexible and examine other trends,

whether intended or not. Some common types of analysis include the following comparisons:

- Planned versus actual (temporal) comparison: Variance is the difference between identified targets and actual results, such as data organized to compare the number of people (households) targeted in a disaster preparedness programme, versus how many were actually reached. When doing such analysis it is important to explain why any variance occurred.
- Demographic comparison: such as data separated by gender, age or ethnicity to compare the delivery of services to specific vulnerable groups, e.g. in a poverty-lessening/livelihoods project.
- Geographical comparison: such as data described by neighbourhood, or urban versus rural, e.g. to compare food delivery during an emergency operation. This is particularly important if certain areas have been more affected than others.
- Thematic comparison: such as data described by donor-driven versus owner-driven housing interventions to compare approaches for a shelter reconstruction programme.

In data description, it is often helpful to use summary tables/matrices, graphs, diagrams and other visual aids to help organize and describe key trends/findings – this can also be used later for data presentation. While this will require different types of analysis for quantitative versus qualitative data, it is important to take into consideration both quantitative and qualitative data together. Relating and comparing both data types' helps to best summarize findings and interpret what is being studied, rather than using separate sets of data.

As quantitative data is numerical, its description and analysis involves statistical techniques. Therefore, it is useful to briefly discuss the use of statistics in data analysis. Simple statistical analysis (such as percentages) can be done using a calculator, while more complex statistical analysis, such as survey data, can be carried out using Excel or statistical software such as SPSS (Statistical Package for Social Sciences) – often it may be advisable to seek expert statistical advice.

3. Data validation

It is important at this point to determine if and how subsequent analysis will occur. This may be necessary to verify findings, especially with high-profile or controversial findings and conclusions. This may involve identifying additional primary and/or secondary sources to further triangulate analysis, or comparisons can be made with other related research studies. For instance, there may need to be some additional interviews or focus group discussions to further clarify (validate) a particular finding. Subsequent research can also be used in follow-up to identified research topics emerging from analysis for project/programme extension, additional funding or to inform the larger development community.

4. Data presentation

Data presentation seeks to effectively present data so that it highlights key findings and conclusions. A useful question to answer when presenting data is, “so what?” What does all this data mean or tell us – why is it important? Try to narrow down your answer to the key conclusions that explain the story the data presents and why it is significant. Some other key reminders in data presentation include:

- Make sure that the analysis or finding you are trying to highlight is sufficiently demonstrated.

- Ensure that data presentation is as clear and simple as accuracy allows for users to easily understand.
- Keep your audience in mind, so that data presentation can be tailored to the appropriate level/format (e.g. summary form, verbal or written).
- Avoid using excessively technical jargon or detail.

There are numerous examples/formats of how data can be presented. Some examples include written descriptions (narratives), matrices/tables, graphs (e.g. illustrating trends), calendars (e.g. representing seasonal performance), pie and bar charts (e.g. illustrating distribution or ranking, such as from a proportional piling exercise); mapping (e.g. wealth, hazard, mobility, social, resource, risk, network, influence and relationships); asset wheels (a variation of pie charts representing allocation of assets); Venn diagrams (usually made up of circular areas intersecting where they have elements in common); timelines/histories; and causal flow diagrams. Whatever format is used, be sure that what you are trying to show is highlighted clearly.

5. Recommendations and action planning

Recommendations and action planning are where data is put to use as evidence or justification for proposed actions. It is closely interrelated with the utilization of reported information, but it is presented here because the process of identifying recommendations usually coincides with analysing findings and conclusions.

It is important that there is a clear causality or rationale for the proposed actions, linking evidence to recommendations. It is also important to ensure that recommendations are specific, which will help in data reporting and utilization. Therefore, it is useful to express recommendations as specific action points that uphold the SMART criteria (specific, measurable, achievable, relevant and time-bound) and are targeted to the specific stakeholders who will take them forward. It is also useful to appoint one stakeholder who will follow up with all others to ensure that actions have been taken.

An essential condition for well-formulated recommendations and action planning is to have a clear understanding and use of them in relation to other data analysis outputs, findings and conclusions. Therefore, Table 6 provides a summary differentiating these key learning outputs.

Step 4 – Plan for information reporting and utilization

Anticipate and plan for reporting

Reporting can be costly in both time and resources and should not become an end in itself, but serve a well-planned purpose. Therefore, it is critical to anticipate and carefully plan for reporting.

A valuable tool when planning for reporting is a reporting schedule, matching each reporting requirement with its frequency, audience/purpose, format/outlet and person(s) responsible.

A. Identify the specific reporting needs/audience

Reports should be prepared for a specific purpose/audience. This informs the appropriate content, format and timing for the report. For example, do users need information for ongoing project/programme implementation, strategic planning, compliance with donor requirements, evaluation of impact and/or organisational learning for future project/programmes?

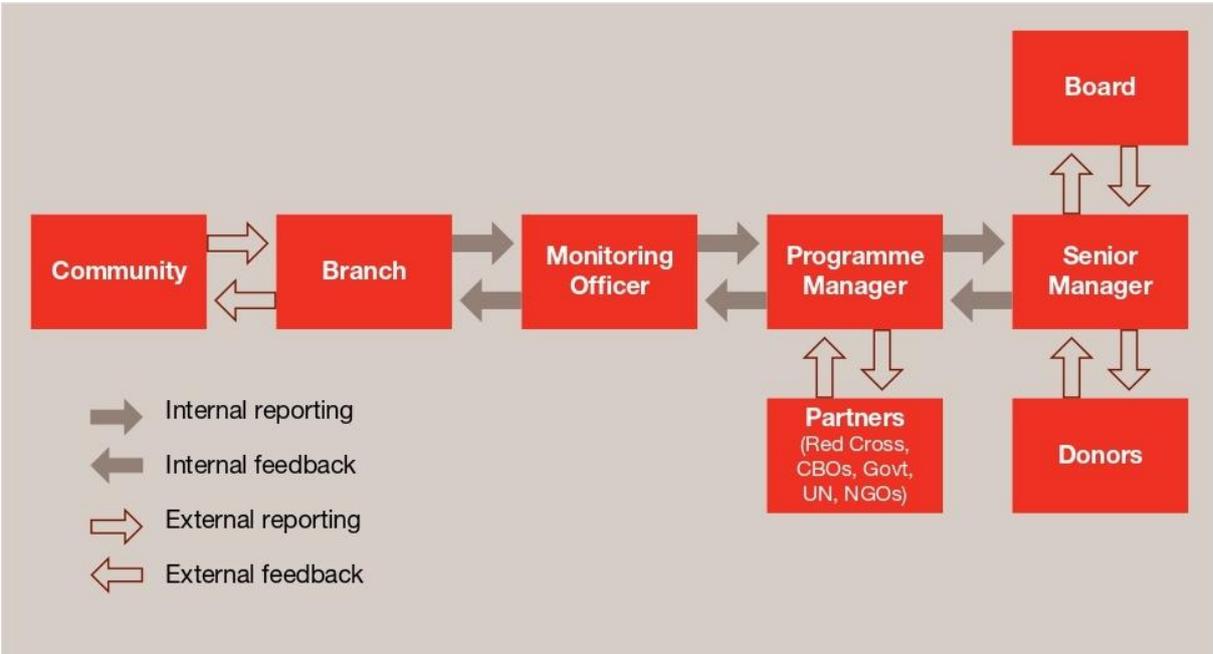
As already noted, it is best to identify reporting and other informational needs early in the M&E

planning process, especially any reporting requirements. Therefore, a completed M&E stakeholder assessment table is a valuable tool for report planning, as well as the “informational use/audience” column in the M&E plan table.

A particularly important consideration in planning for reporting is the distinction between internal and external reporting. Internal reporting is conducted to enable actual project/programme implementation; it plays a more crucial role in lesson learning to facilitate decision-making – and, ultimately, what can be extracted and reported externally. External reporting is conducted to inform stakeholders outside the project/programme team and implementing organization; this is important for accountability.

Day-to-day operations depend upon a regular and reliable flow of information. Therefore, special attention should be given to the informational needs of the project/programme managers. They will need timely information to analyse project/programme progress and critical issues, make planning decisions and prepare progress reports for multiple audiences, e.g. superiors and donors. In turn, project-level reports provide essential information for programme managers and country directors to compare planned actions with actual performance and budget.

Below diagram provides an example of programme reporting that can be useful in understanding the flow of information to key stakeholders. The blue arrows show which reporting lines are internal to the project/programme team (branch, monitoring officer, manager, senior management), while the red arrows represent reporting to stakeholders outside the project/programme team (community, partners, donors, Board of Directors).



B. Determine the reporting frequency

It is critical to identify realistic reporting deadlines. They should be feasible in relation to the time, resources and capacity necessary to produce and distribute re-ports including data collection, analysis and feedback. Some key points to keep in mind in planning the reporting frequency:

1. Reporting frequency should be based upon the informational needs of the intended

audience, timed so that it can inform key project/programme planning, decision-making and accountability events.

2. Reporting frequency will also be influenced by the complexity and cost of data collection. For instance, it is much easier and affordable to report on a process indicator for the number of workshop participants than an outcome indicator that measures behavioural change in a random sample, household survey (which entails more time and resources).
3. Data may be collected regularly, but not everything needs to be reported to every-one all the time. For example:
 - a. A security officer might want monitoring situational reports on a daily basis in a conflict setting
 - b. A field officer may need weekly reports on process indicators around activities to monitor project/programme implementation
 - c. A project/programme manager may want monthly reports on outputs/services delivered to check if they are on track
 - d. Project/programme management may want quarterly reports on outcome indicators of longer-term change
 - e. An evaluation team may want baseline and endline reports on impact indicators during the project start and end.

C. Determine specific reporting formats

Once the reporting audience (who), purpose (why) and timing (when) have been identified, it is then important to determine the key reporting formats that are most appropriate for the intended user(s). This can vary from written documents to video presentations posted on the internet. Sometimes the reporting format must adhere to strict requirements, while at other times there can be more flexibility.

It is important that report formats and content are appropriate for their intended users. How information is presented during the reporting stage can play a key role in how well it is understood and put to use. For example, reports with graphs and charts may work well with project/programme management, participatory discussion meetings with field staff, community (visual) mapping for beneficiaries and a glossy report or web site for donors.

D. Identify people responsible for reporting products

It is important to specifically identify the people who will be responsible for each type of report. This can be the same person identified in the M&E plan who collects indicator data, or it may be another person who specifically prepares the data to communicate to others, e.g. the person(s) who prepares a monthly project report, donor progress report or press releases. It also includes people who present and share M&E data at forums such as community meetings, conference calls with headquarters, partnership presentations, etc. It does not need to include everyone involved in the reporting process, but the key person with overall responsibility for each reporting product/type.

Plan for information utilization

The overall purpose of the M&E system is to provide useful information. Therefore, information

utilization should not be an afterthought, but a central planning consideration. For this reason, identifying stakeholder informational needs has been a recurring topic throughout all M&E planning steps.

A. Information dissemination

Information dissemination refers to how information (reports) is distributed to users. This can be seen as part of reporting, but we use dissemination here to mean the distribution of the information (reports) rather than the actual preparation of the information into a report.

There is a variety of mediums to share information, and as with the reporting formats themselves, how reporting information is disseminated will largely depend on the user and purpose of information. Selection of the reporting medium should be guided by what is most efficient in time and resources, and suitable for the audience – a process that should ideally be completed with a reporting schedule. For instance:

- An internet-based reporting system may be best for communication between a project/programme management team and its headquarters.
- Community meetings may be appropriate to report on data to beneficiaries who lack access to computers or are illiterate.
- Mobile phone texting may be most timely and efficient for volunteers to report on safety conditions from the field.

It is also important to remember that information dissemination should be multi-directional. This means that in addition to distributing information upwards to management, senior management and donors, information flows should also be directed to field staff, partners and the beneficiaries themselves. Another important consideration when distributing information is the security of internal or confidential information, precautions should be taken to protect access to confidential information.

B. Decision-making and planning

Decision-making and planning really form the heart of data utilization. But no matter how well the information is prepared or disseminated, it will ultimately be up to the user to decide when and how to put it to use. This is where M&E planning merges with project/programme management, and the manner in which decisions are made and information is used will vary according to project/programme, context and organizational culture. However, while information use is largely in the area of project/programme and organizational management, there are two key considerations that can aid the use of information in decision-making and planning:

1. Stakeholder dialogue: Stakeholder discussion and feedback on information is critical for building understanding and ownership, and informing the appropriate response. This process can begin during the analysis, review and revision of reporting information, and can correspond with information dissemination outlets, such as meetings, seminars and workshops, web-based forums, teleconferences and/or organizational reporting and follow-up procedures.
2. Management response: Specific procedures for documenting and responding to information findings and recommendations (often called “management response”) should be built into the project/programme management system. At the project/programme level, this can be a management action plan with clear responses to key issues identified in a management or

evaluation report. This should specifically explain what actions will be taken, including their time frame and responsibilities; it should also explain why any recommendation or identified issue may not be addressed. Follow-up should be systematic and monitored and reported on in a reliable, timely and public manner.

Step 5 – Plan for M&E human resources and capacity building

An effective M&E system requires capable people to support it. While the M&E plan identifies responsibilities for the data collection on each indicator, it is also important to plan for the people responsible for M&E processes, including data management, analysis, reporting and M&E training. This section summarizes key considerations in planning for the human resources and capacity building for a project/programme's M&E system.

Assess the projects/programme's human resources capacity for M&E

A first step in planning for M&E human resources is to determine the available M&E experience within the project/programme team, partner organizations, target communities and any other potential participants in the M&E system. It is important to identify any gaps between the project/programme's M&E needs and available personnel, which will inform the need for capacity building or outside expertise.

Key questions to guide this process include:

- Is there existing M&E expertise among the project/programme team? How does this match with the M&E needs of the project/programme?
- Is there M&E support from the organization implementing the project/programme? For instance, is there a technical unit or individuals assigned with M&E responsibilities to advise and support staff, and if so, what is their availability for the specific project/programme?
- Do the target communities (or certain members) and other project/programme partners have any experience in M&E?

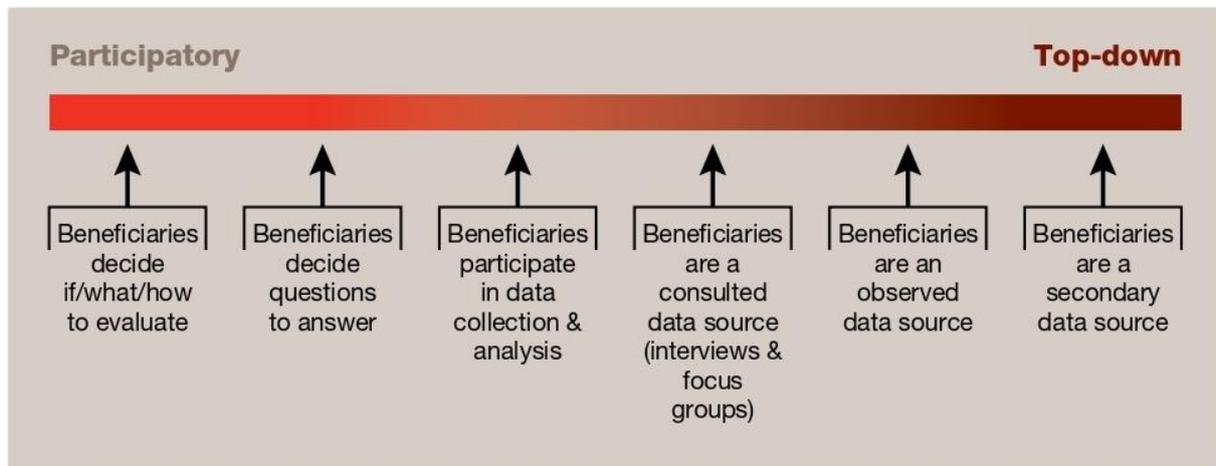
Determine the extent of local participation

Ideally, data collection and analysis is undertaken with the very people to whom these processes and decisions most relate. This is an important principle for the Movement, which prioritizes the involvement of local volunteers and communities. Often, local participation in M&E is expected or required, and building local capacity to sustain the project/programme is identified as a key objective of the project/programme itself.

Participation can happen at multiple levels in the M&E system. As below diagram illustrates, participation happens on a continuum: at one end of the spectrum the M&E system can be completely participatory, where local stakeholders actively participate in all processes and decision-making, while at the other end it can be top-down, in which local stakeholders are restricted to subjects of observation or study. Ultimately, the degree of participation will vary according to the project/programme and context. Some examples of M&E participation include:

- The use of participatory assessments, e.g. vulnerability capacity assessments (VCAs) or community SWOT (strength-weakness-opportunity-threats) analysis
- Involvement of local representatives in the project/programme design (log-frame) and identification of indicators

- Participatory monitoring where elected community representatives reporting on key monitoring indicators
- Self-evaluations using simple methods adapted to the local context, e.g. most significant change and participatory project reviews.
- Sharing monitoring and evaluation findings with community members for participatory analysis and identification or recommendations.
- Utilization of feedback mechanisms for beneficiaries, volunteers and staff.



There are many benefits to local participation in M&E, but it is also important to recognize some of the potential drawbacks. It is important to note that participatory approaches should not exclude or “sideline” outsiders and the technical expertise, insights and perspectives they can provide.

Determine the extent of outside expertise

Outside specialists (consultants) are usually employed for technical expertise, objectivity and credibility, to save time and/or as a donor requirement. Clearly, and especially for external evaluators, experience, reliability and credibility are essential when considering whether or not to use outside expertise.

Examples of when outside expertise is used include:

- For the independent, final evaluation of all funded projects/ programmes.
- As part of a joint, real-time evaluation for a disaster response operation.
- To administer random samples for household surveys during a baseline or endline study.
- For project/programme data entry and statistical analysis
- For the translation of project/programme documents.

Sometimes, a project/programme or implementing organization may need to hire a specific person to oversee M&E processes – e.g. an M&E officer or advisor.

1. Identify M&E needs for the staff position

2. Create a job description
3. Establish a hiring committee and outline the hiring process
4. Advertise for the position
5. Sort, short-list, and pre-screen applicants
6. Interview the candidates
7. Hire and train new staff.

Define the roles and responsibilities for M&E

It is important to have well-defined roles and responsibilities at each level of the M&E system. The M&E plan identifies people responsible for the specific collection of data on each indicator, but there are other responsibilities throughout the M&E system, from data management and analysis to reporting and feedback. This will ultimately depend on the scope of the project/programme and what systems are already in place within the project/programme and/or the implementing organization.

Plan to manage project/programme team's M&E activities

Whether project/programme staff, volunteers, community members, or other partners involved in the M&E system, it is important to develop tools and mechanisms to manage their time and performance. It is also important to include this planning as part of the overall performance monitoring system for staff/volunteers.

Identify M&E capacity-building requirements and opportunities

Once roles and responsibilities have been determined, it is important to specify any M&E training requirements. For longer-term projects/programmes, or those with significant training needs, it may be useful to create an M&E training schedule (planning table), identifying key training sessions, their schedule, location, participants and allocated budget.

M&E training can be formal or informal. Informal training includes on-the-job guidance and feedback, such as mentorship in completing checklists, commenting on a report or guidance on how to use data management tools.

Formal training can include courses and workshops on project/programme design (logframes), M&E planning, data collection, management, analysis and reporting, etc. Formal training should be tailored towards the project/programme's specific needs and audience. This can involve an outside trainer coming to the project/programme team/site, sending participants to training/ workshops, online training or academic courses.

Step 6 – Prepare the M&E budget

It is best to begin systematically planning the M&E budget early in the project/programme design process so that adequate funds are allocated and available for M&E activities. The following section summarizes key considerations for planning the project/programme's M&E budget.

Itemize M&E budget needs

If the M&E planning has been approached systematically, identifying key steps and people involved, detailing budget items should be straight forward. Start by listing M&E tasks and associated costs. If a planning table for key M&E activities has been prepared, this can be used to guide the process. If there is a required format for itemizing budget items – e.g. within the implementing organization or from the donor – adhere to the format or an agreed-upon variation. Otherwise, prepare a spreadsheet clearly itemizing M&E expenses. It is particularly important to budget for any “big-ticket items”, such as baseline surveys and evaluations.

Examples of budget items include:

- Human resources: Budget for staffing, including full-time staff, external consultants, capacity building/training and other related expenses, e.g. translation, data entry for baseline surveys, etc.
- Capital expenses: Budget for facility costs, office equipment and supplies, any travel and accommodation, computer hardware and software, printing, publishing and distributing M&E documents, etc.

In addition to itemizing expenses in a spreadsheet, a narrative (description) justifying each line item can help guard against unexpected budget cuts. It may be necessary to clarify or justify M&E expenses, such as wage rates not normally paid to comparable positions, fees for consultants and external experts, or the various steps in a survey that add up in cost (e.g. development and testing of a questionnaire, translation and back-translation, training in data collection, data collectors’ and field supervisors’ daily rates, travel/accommodation costs for administering the survey, data analysis and write-up, etc).

Incorporate M&E costs into the project/programme budget

Costs associated with regular project/programme monitoring and undertaking evaluations should be included in the project/programme budget, rather than as part of the organization’s overhead (organizational development or administrative costs).

Therefore, the true cost of a project/programme will be reflected in the budget. Otherwise, including M&E costs as an administrative or organizational development cost may incorrectly suggest inefficiencies in the project/programme and the implementing organization, with donors reluctant to cover such costs when in reality they are project-related costs. Ideally, financial systems should allow for activity-based costing where monitoring costs are linked to project/ programme activities being monitored.

If the budget has already been completed with the project/programme proposal, determine whether there is a separate/appropriated budget for M&E purposes. Ongoing monitoring expenses may already be built into staff time and expenditure budgets for the overall project/programme operation, such as support for an information management system, field transportation and vehicle maintenance, translation, and printing and publishing of M&E documents/ tools. Certain M&E events, such as a baseline study or external evaluation, may not have been included in the overall project/programme budget because the budget was planned during the proposal preparation period, before the M&E system had been developed. In such instances it is critical to ensure that these M&E costs are added to the project/programme budget.

Review any donor budget requirements and contributions

Identify any specific budgeting requirements or guidance from the funding agency or implementing organization. If multiple funding sources are utilized, ensure that the budget is broken down by

donor source. Determine if there are any additional costs the donor(s) will or will not cover, such as required evaluations, baseline studies, etc. Check with the finance unit or officer to ensure the budget is prepared in the appropriate format.

Plan for cost contingency

Contingency costs refer to unexpected costs that may arise during project/programme implementation – in this case the M&E system. It is important to plan for unexpected contingencies such as inflation, currency devaluation, equipment theft or the need for additional data collection/analysis to verify findings. Although budget planning seeks to avoid these risks, unexpected expenses do arise.