

MEL Tip Sheet #12: Developing a Monitoring System

This tip sheet is for managers and staff needing to develop a project-level monitoring system, and draws significantly on the information provided in *MEL TipSheet: DM&E at Program Start-Up*. Subsequent pages provide greater detail, including guidance on content and examples.

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When should I develop a project-level monitoring system?

A project's monitoring system is best developed during the project's start-up phase, after key staff have been hired but prior to the start of project activities. Ideally, it will be developed before implementing the baseline, since the indicators which the baseline will measure will be further defined during the development of the monitoring system.

Integrating DM&E into a kick-off workshop helps us to address these issues, and is the ideal entry point for developing the monitoring system. A detailed exploration of the key components of addressing DM&E during the project kick-off is in *MEL Tip-Sheet: DM&E at Program Start Up*. In this document we describe a recommended process for developing a monitoring system so that it serves as a tool for good program management, pulling relevant sections from the Program Start Up Tipsheet.

Is your project already well into implementation?

Don't worry, it's never too late to develop indicator plans and solidify M&E practices.

Who should be involved?

It is strongly encouraged to involve all program staff, partners and/or beneficiaries in reviewing and refining project indicators, as well as in plans for collecting, analyzing and disseminating M&E information, all key steps in developing the project's monitoring system. The decision on how to involve partners or beneficiaries varies according to context. At the very least, we should include all staff that will be responsible for collecting, inputting, managing, analyzing or disseminating M&E data, as well as those managing these staff.

What are the key steps in developing a monitoring system?

1. Clarify the management structure
2. Review & refine the project logframe
3. Identify key learning/research questions and management questions
4. Develop the indicator plan - what, how, when, who?
5. Assess the means, costs and risks of the monitoring system
6. Identify the required data collection tools
7. Develop data collection tools & data management systems
8. Integrate M&E activities into the project's workplan
9. Map out the M&E System

1. Clarify the management structure

The primary purpose of a monitoring and information system is to support good program management. For this reason, the first step in developing that system is to understand and clarify the management structure and each person's responsibilities within it so that we can be sure to engage those individuals while developing the monitoring system. A starting point for this is to identify the various levels within the management structure, including: strategic level (broad advisory role), supervisory and coordination level (direction, project management), implementation level and beneficiary level.

Be sure to consider the division of management responsibilities between Mercy Corps and our partners on the project, and how that will likely affect the information system.

When clarifying those levels of management, consider what staff positions fall within each, as well as the scope and responsibilities of those positions. At this stage we also should consider what decisions need to be taken at each level and by particular positions, and the kinds of information needed to make those decisions. Take note of key points that emerge

from this discussion as we will make use of them during steps three and four. Be sure that those individuals identified at this stage are involved in step two, refining the project logframe.

2. Review and refine the project logframe

The logframe is a project's guiding document, containing the objectives, outputs, activities and indicators that will be the focus of M&E efforts. It is generally written months earlier during the proposal phase, often by people outside of the project team.

For these reasons, it is important to review the logframe at the start of the project, or when developing or refining the monitoring system. This process helps project staff to deepen understanding and gain team consensus on what the project is trying to achieve, and to ensure that it reflects the current reality on the ground.

In reviewing the logframe:

Assess whether each **objective** meets SMART criteria – make sure they clearly capture the intended changes

Re-consider the **indicators**: Do we have at least one objective-level indicator? Are they feasible to measure?

We should be proactive about making changes to the logframe if necessary. This is important to ensure the feasibility of indicators and targets, and to build staff/partner ownership of project activities. Of course, we also need to keep in mind contractual obligations to the donor in terms of what we are committed to implementing and measuring.

Any adjustment to the logframe needs to be cross-checked against the budget, and any significant changes should be discussed with the finance team before moving forward.

While minor adjustments are probably fine, more significant changes to the logframe will require a re-negotiation with donors. Donors can be open to revisions if a compelling case is made. In general, it is preferable to push for changes at the outset than to be held accountable for measuring unrealistic indicators and targets at project's end.

3. Identify key management questions

Information becomes useful only if it answers a question and informs decision-making. After deepening their understanding of the project in step two, those responsible for taking decisions at various stages of the project cycle should identify, as precisely as possible, what they need to know in order to make those decisions.

Possible management questions can be divided into the following categories (and will be reflected upon during step five of this process):

- *inputs/activities* – deals with resources (finance; equipment – deployment, use and quality; materials – use, quality, quantity; and human resources)
- *outputs/services* – is concerned with the project's deliverables (quality and quantity)
- *project objectives* – deals with the changes we intend to bring about through the implementation of our project
- *overall project purpose* – focuses on reactions of the target group and provides space for those stakeholders to define successes and challenges
- *project context* – measures the assumptions on which our logical framework is based

A Critical Challenge: Too Much Information-

Most systems collapse because they are too ambiguous or ambitious. The difficulty with defining information needs is not so much the formulation of questions as how to decide what is essential and what is not.

- *learning agenda*: As a team it is also important to take time to learn from program implementation and to adjust activities as new information is received. A learning agenda is critical and there are three components you should include: a set of learning questions, a regular meeting time to answer them, and a method to use and share your learning. Every learning agenda should include a set of questions to concentrate, focus, and guide your learning process. What you ask will inform the way you plan and the type of information you will receive, so think carefully about your questions and how the information from these questions will help inform your learning. Start at the theory of change and begin questioning some of your assumptions and logical jumps.

4. Develop the indicator plan – what, how, when, who?

The indicator plan is the key planning document for project M&E efforts, providing details such as what will be collected, from whom, how, who will do it, how often, etc. The indicator plan should include the following:

- o responsibilities of MC staff as well as partner staff in data collection and management,
- o the indicators refined during step two,
- o any additional information needs identified as part of step three, and
- o any other additional details developed during those two steps regarding information flow, frequency, staff to engage at different steps in the process, etc.

Indicator Plan tips:

- In the *Definition of the indicator* column, we should make clear the **unit of analysis** we are interested in (i.e., individual, household, association, etc.). This will have major implications for data collection and sampling strategies.
- In the same column, we can also note any possible **disaggregations**, or sub-groupings, for the indicator (e.g., sex, age, income, region, etc.).
- We may wish to provide additional detail for the *Data collection sources and methods* column, in order to describe the source of the information (or **target audience** - where they are located, how they will be engaged, sampling strategy, etc.), as well as **methods of inquiry** (e.g., survey, focus group, case study, etc.).
- We should pay particular attention to the *Frequency* column, as this will define monitoring versus evaluation. We sometimes tend to wish for high measurement frequencies (e.g., monthly or quarterly) which become challenging to implement. Also, we should try to **standardize frequencies** as much as possible so multiple indicators can be rolled into the same data collection activities and field reports.
- Include the level of detail needed for *Roles and Responsibilities*. If it helps, we should consider writing out a more detailed **process flow**, so that it is clear who is responsible when the indicator is collected, inputted, analyzed, reported on and disseminated. Writing out the process and the rationale behind decisions also helps ensure institutional memory in the face of staff turnover.
- We should proactively look for ways for **partners and beneficiaries** to be involved in tracking indicators, and adjust contracts or MOUs as needed to reflect new roles.

Indicator Plan format:

We may wish to include additional columns for more information, or provide narrative notes to explain roles & responsibilities. We've found it helpful to do this plan in Excel rather than Word to allow more flexibility.

Feel free to adapt the format to meet the program needs or donor requirements

- Think about the **budgetary and time implications** of tracking each indicator. We sometimes commit ourselves to extensive evaluation activities without analyzing whether we have adequate funding and staff capacity to carry them out!

5. Assess the costs and risks of the monitoring system

At this stage in the process it's important to consider the overall costs and potential risks of the monitoring system. Have we developed a set of data needs and methodologies that is over-ambitious and too costly? Be sure to consider both financial costs and whether we have sufficient human resources to collect, analyze and report on all the data we are planning to collect. If so, now is the time to go back to previous steps to determine what should and can be revised to make the system feasible to implement.

Questions to ask to assess risk:

Do we have internal capacity to develop data collection tools and systems?

Will people be afraid of potentially monitoring a lack of progress?

What's the current level of understanding regarding the use of monitoring systems?

As a rule of thumb, we want to budget between **5% and 10%** of the total project budget for its monitoring and evaluation system. Potential risks we should consider might be technical problems (do we have internal capacity to develop the necessary data collection tools and management systems?), political in nature (will people be afraid of monitoring the potential lack of progress?), or cultural in nature (what's the current level of understanding regarding the need for a monitoring system?). The answers to these sorts of questions will help us identify what other supporting steps we

need to build into our approach, for example, perhaps we might need to bring in an external technical consultant to assist with the trickiest technical issues and we'll likely need to plan for staff training and orientation on the system. Hopefully, if we've managed to involve a wide array of project staff and local partners throughout the previous steps, that training and orientation has already begun!

6. Identify the required data collection tools

With our key planning documents in place, we can now focus on preparing the necessary data collection tools and data management systems. The first thing we need to do is figure out how many monitoring tools we need and what data needs to be included in each. Our aim here is to develop as few separate tools as possible so as to help keep the system as simple as possible.

This essentially requires analyzing the data collection methods and frequencies listed in the indicator plan, looking for overlap in the various categories. In particular we look for overlap in frequency of data collection, data collection sources and methods, and the persons responsible for collecting the information.

One of the reasons we prefer to develop the indicator plan in MS Excel is that it facilitates this process. In Excel we can use the auto-filter function to group indicators where we have these overlaps – i.e. "quarterly" in the *Frequency of Data Collection* column. (You can tell that this feature is turned on in the above example by the presence of the small arrows in the header row.)

7. Develop data collection tools & data management systems

Once we have determined which data collection tools need to be developed as part of step six, we should identify small teams of project staff to jointly develop these instruments. Many times, these data collection tools do not need to be developed from scratch, but instead can be developed by modifying existing resources. The DM&E-in-a-Box toolkit will have some of those more commonly used resources that you can use as a guide, as well as by searching the digital library. As we are designing the data collection forms, we need to build time in for testing the tools and to think about how the information will be entered and stored electronically.

Designing an M&E data management system can be a lengthy and difficult process. Usually this step will be tasked to those individuals within the country team with the relevant technical skills (usually in MS Excel or MS Word). Sometimes, the team going through these steps will need to develop a scope of work to bring in an external consultant to assist with the database development. As you are working on this step, please consult *DM&E Tip Sheet #9: Data Management* for further guidance on systems development.

8. Develop a project workplan, integrating M&E activities

Developing a workplan¹, and/or related planning tools such as a detailed implementation plan (DIP), is a central part of any project start-up, and becomes itself a critical project monitoring tool. Now that we have established our M&E base documents (including a revised logframe) and articulated the overall flow of our project's processes, we should develop the project's workplan and integrate M&E activities are integrated into this plan. Please refer to the *DM&E Guidebook*, Annex B for a good example of what this might look like.

Be sure to incorporate the M&E activities outlined in the indicator plan developed in step five into your project's workplan. The workplan should include time for information reflection and analysis meetings, action planning and reporting. Too many times we see data being collected and stored, but not being fully analyzed and fed back into programming strategies and management decisions. Integrating M&E activities into the workplan is important to make sure that these tasks get done once the daily pressures of project implementation begin.

When integrating M&E into the workplan, be aware of:

Staff availability for M&E versus other competing priorities

Seasonal factors, like holidays or weather, that may affect M&E activities

Budget and cash flow factors that may inhibit or provide opportunity for M&E

9. Map out the information system

One final step in the development of the monitoring system is to map the key elements of the system. This graphical representation will provide, at a glance, quick understanding on how the project has structured its information system. This map may include the following components of the system:

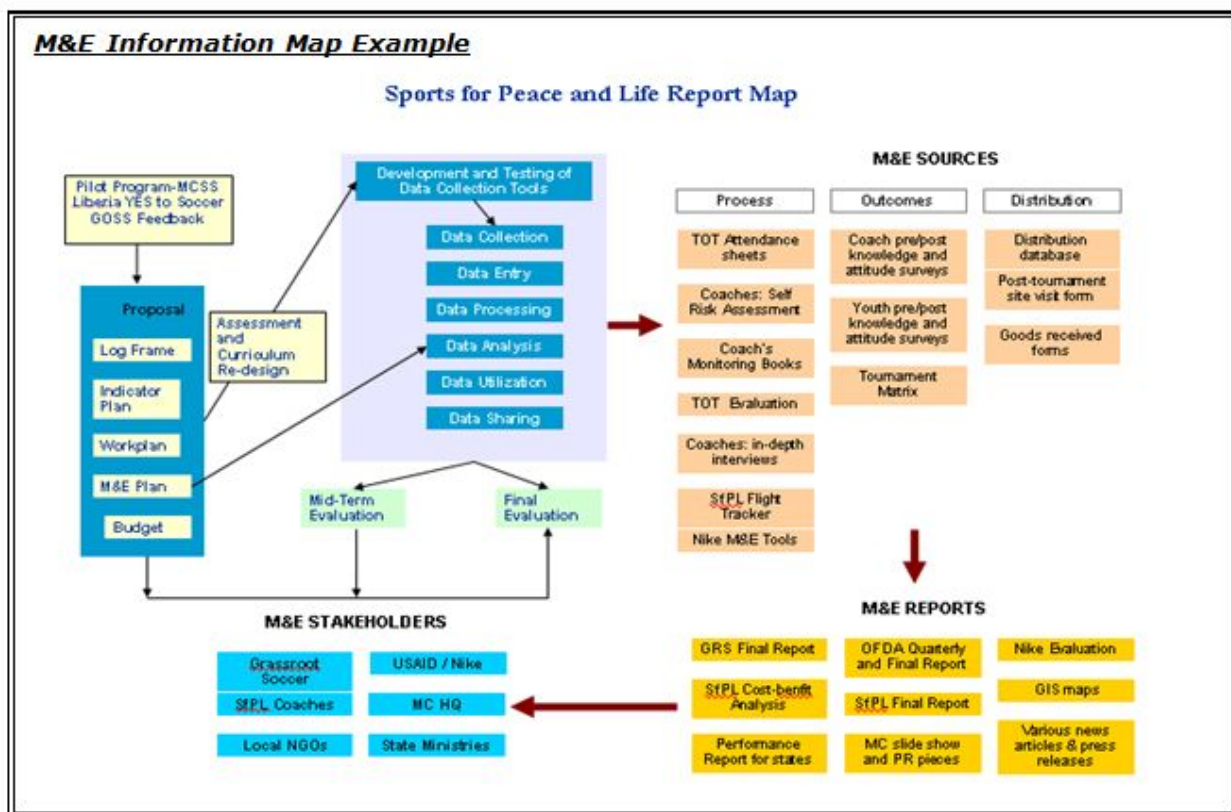
- Project design documents
- Key steps in data collection, processing and use
- Data collection and management tools
- Project stakeholders
- Data analysis and reflection steps
- Reports to be generated

¹ See the Mercy Corps *DM&E Guidebook* on the Digital Library for a suggested workplan format and guidance.

- Basic flows or relationships between these various components
- individuals responsible for each step (MC staff and partner staff)
- Time frames associated with each step

Provided below is an example of one such information map generated by one of our projects in southern Sudan. To be comprehensive of the entire system, such maps would also need to include components referencing data analysis and reflection workshops and action planning with project stakeholders.

These kinds of maps are useful in communicating to others how we have structured our monitoring systems, of serving as reminders to ourselves (and as a historical record) over the life of the project regarding our original intentions for the monitoring system. The map may also be brought out during quarterly or twice-yearly information and results review meetings to make sure we are making full use of the system as originally designed.



Additional resources for developing a project-level monitoring system

- MEL Tipsheet: DM&E at Program Start-Up
- DM&E Tip Sheet #8: Data Management
- DM&E Tip Sheet #9: Budgeting for M&E