International Program for Development Evaluation Training (IPDET)

Module 11. Building a Performance-Based Monitoring and Evaluation System
Preface

The International Program for Development Evaluation Training (IPDET) program was initiated by the World Bank to meet the needs of evaluation and audit units of bilateral and multilateral development agencies and banks; developed and developing country governments, and evaluators working in development and nongovernmental organizations.

The overall goal of this training program is to enhance the knowledge, skills, and abilities of participants in development evaluation. It is our intention that by the end of the training program, participants will:

- Understand the development evaluation process
- Be familiar with evaluation concepts, techniques, and issues
- Be able to weight different options for planning development evaluations, including data collection, analysis, and reporting
- Be able to design a development evaluation

The training program is organized into twelve modules as follows:

Module 1. Introduction to Development Evaluation
Module 2. Evaluation Models
Module 3. New Development Evaluation Approaches
Module 4. Evaluation Questions
Module 5. Impact, Descriptive, and Normative Evaluation Designs
Module 6. Data Collection Methods
Module 7. Sampling
Module 8. Data Analysis and Interpretation
Module 9. Presenting Results
Module 10. Putting it all Together
Module 11. Building a Performance-Based Monitoring and Evaluation System
Module 12. Development Evaluation Issues
Each module is intended to stand alone, and includes:

- an instructional introduction
- at least one case example
- application exercises
- references to further reading and resources
- powerpoint presentations from IPDET

Comments and suggestions for improvement of these training modules are invited and may be addressed to:

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Introduction:

There are growing pressures in developing countries to improve the performance of their public sectors. One strategy to address this need is to design and construct performance-based monitoring and evaluation (M&E) systems so as to be able to track the results produced (or not produced) by governments and other entities. This module describes a ten-step approach to the design and construction of such M&E systems that is currently being deployed in a number of developing countries (see Figure 11-1).

The goals of this module are:

- To prepare you to plan, design, and implement a performance-based monitoring and evaluation system within your organization, and
- To demonstrate how a monitoring and evaluation system is a valuable tool to support good management
The overall strategy outlined in this module builds on the experiences of developed countries—especially those in the OECD—but also reflects the particular challenges and difficulties faced by developing countries that can range from a lack of skill capacity to poor governance structures to systems that are far from transparent.\(^1\)

Although the primary focus of this module is on improving government effectiveness and accountability through the use of a sound monitoring and evaluation system, the principles and strategies apply equally well to organizations, programs, and projects.

**Reasons to Do Performance-Based Monitoring and Evaluation:**

A performance-based M&E system provides crucial information about public sector or organizational performance. It can help policy makers, decision makers, and other stakeholders answer the fundamental questions of whether promises were kept and goals achieved. If governments are promising improved performance, there needs to be some means of demonstrating that such improvements have or have not occurred, i.e., there is a need for monitoring and evaluation.

By reporting the results of various interventions, governments and other organizations can promote credibility and public confidence in their work. Such practices also support a development agenda that is shifting towards greater accountability for aid lending.

A good performance-based M&E system can be extremely useful as a management and motivational tool. It helps focus people’s attention on achieving outcomes that are important to the organization and its stakeholders, and provides an impetus for establishing key goals and objectives that address these outcomes.

Once targets are established and the organization is striving to achieve them, the M&E system can provide timely information to staff about progress, and can help with the early identification of any weaknesses that

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\(^1\) For a more in-depth discussion of these issues, see Kusek and Rist (2001a), from which much of the content for this module was drawn.
require corrective action. A good M&E system is an essential source of information for streamlining and improving interventions to maximize the likelihood of success.

Performance-based M&E systems can also provide a view over time of the status of a project, program or policy. Because governments and other organizations often have multiple projects, programs, and policies implemented at any one time, it is essential to have some means of tracking how well they are working.

A good M&E system helps with early identification of promising interventions that could potentially be implemented elsewhere. Having data available about how well a particular project, practice, program or policy works provides useful information for formulating and justifying budget requests, and for allowing judicious allocation of scarce resources to the interventions that will provide the greatest benefit.

**What are Performance-Based Monitoring and Evaluation?**

Performance information can come from two sources—a monitoring system and an evaluation system. Both of these systems are essential for effective management; they are distinct but complementary.

Performance-based monitoring can be viewed as a continuous process of measuring progress toward explicit short, intermediate, and long-term results. It can provide feedback on progress (or lack of progress) to staff and decision-makers who can use the information in various ways to improve performance.

In contrast, evaluation is the assessment, as systematic and objective as possible, of an on-going or completed project, program, or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability.

The main difference between performance monitoring and evaluation is that monitoring is focused on the achievement of specific, predetermined targets. Evaluation takes a broader view of an intervention, considering not
only progress toward stated goals, but also such questions as: (a) whether the goals were relevant and worthwhile in the first place, (b) how effectively and efficiently they are being achieved, (c) what other unanticipated effects have been caused by the intervention, and (d) whether the intervention as a package represents the most cost-effective and sustainable strategy for addressing a particular set of identified needs.

**Traditional vs. Results-Based M&E**

It is not a new phenomenon for governments to monitor and evaluate their own performance. Governments have over time tracked their expenditures and revenues, staffing levels and resources, program and project activities, numbers of participants, goods and services produced, etc. Indeed, traditional efforts at M&E have been a function of many governments for several decades or longer. There is evidence, for example, that the ancient Egyptians (5000 BC) regularly tracked their government’s outputs in grain and livestock production. (Egyptian Museum, Cairo, Egypt)

For this reason, a theoretical distinction needs to be drawn between traditional M&E and results-based M&E (also referred to in this module as performance-based M&E). Traditional M&E focuses on the monitoring and evaluation of inputs, activities, and outputs, i.e., project or program implementation. Performance-based M&E, however, combines the traditional approach of monitoring implementation with the assessment of results (see Figure 11-2).

It is this linking of both implementation progress with progress in achieving the desired objectives or goals (results) of government policies and programs that makes performance-based M&E most useful as a tool for public management. Implementing this type of M&E system allows the organization to modify and make adjustments to the implementation processes in order to more directly support the achievement of desired objectives and outcomes.
Monitoring involves measurement—and what is measured is the progress towards achieving an objective or goal (result). However, the goal cannot be measured directly. It must first be translated into a set of indicators that when regularly measured will provide information whether or not the goal is being achieved.

For example: If country X selects the goal of improving the health of children by reducing childhood morbidity by 30% over the next five years, it must now identify a set of indicators that translate childhood morbidity into more specific measurements. Indicators that can help assess the changes in childhood morbidity might include: 1) the incidence and prevalence of infectious diseases, such as hepatitis; 2) the level of maternal health; and 3) the degree to which children have access to sanitary water supplies.

Measuring a disaggregated set of indicators provides important information as to how well government programs and policies are working to support the overall goal. If, for example, it is found that over time, fewer and fewer children have clean water supplies available to them, then the government
can use this information to reform programs aimed to improve water supplies, or strengthen those programs that provide information to parents about the need to sanitize water before providing it to their children.

It is important to note here that performance information obtained from a monitoring system only reveals the performance of what is being measured at that time---although it can be compared against both past performance and some planned level of present or anticipated performance. Monitoring data does not reveal why that level of performance occurred, nor does it provide causal explanations about changes in performance from one reporting period to another. This information comes from an evaluation system.

An evaluation system serves as a complimentary but distinct function from that of a monitoring system within a performance management framework. Building an evaluation system allows for a more in-depth study of performance outcomes and impacts; can bring in other data sources than just extant indicators; can address factors that are too difficult or expensive to continuously monitor; and perhaps most important, can tackle the issue of why and how the trends being tracked with monitoring data are moving in the directions they are. Such data on impacts and causal attribution are not to be taken lightly and can play an important role in an organization making strategic resource allocations.

The Ten Steps to Building a Performance-Based M & E System

Building a quality performance-based M&E system involves ten steps (see also Figure 11-1):
1. Conducting a Readiness Assessment
2. Agreeing on Performance Outcomes to Monitor and Evaluate
3. Selecting Key Indicators to Monitor Outcomes
4. Baseline Data on Indicators—Where Are We Today?
5. Planning for Improvement—Setting Realistic Targets
6. Building A Monitoring and Evaluation System
7. Reporting Your Findings
8. The Role of Evaluations
9. Using Your Findings
10. Sustaining the M&E System Within Your Organization
Step One: Conducting a Readiness Assessment

A readiness assessment is a way of determining the capacity and willingness of the government and its development partners to construct a performance-based M&E system. This assessment addresses such issues as the presence or absence of incentives, roles and responsibilities, organizational capacity, and barriers to getting started.

Incentives. The first part of the readiness assessment involves placing yourself in the shoes of the main stakeholder groups and asking, “Who says we do this?” and “What’s in it for me?” Specific questions to consider under this heading include:

1. What is driving the need for building an M&E system?
2. Who are the champions for building and using an M&E system?
3. What is motivating those who champion building an M&E system?
4. Who will benefit from the system?
5. Who will not benefit?

Roles and Responsibilities. Next, it is important to identify who is currently responsible for producing data in your organization and in other relevant organizations, and who the main users are of data. For example:

1. Who in the country produces data?
2. Where in the government are data used?

Organizational Capacity. A key element driving the organization’s readiness for a performance-based monitoring and evaluation system relates to the skills, resources, and experience the organization has available to draw on. Questions to ask when assessing organizational capacity include:

1. Who in the organization has the technical skills to design and implement such a system?
2. Who has the skills to manage an M&E system?
3. What data systems currently exist within the organization, and what quality are they?
4. What technology is available to support the necessary data system? [Include database capacity, availability of data analysis and reporting software, etc.]

5. What fiscal resources are available to design and implement an M&E system

6. What experience does the organization have with performance reporting systems?

**Barriers.** As with any organizational change intervention, it is important to consider what could potentially stand in the way of effective implementation. Questions to ask here include:

1. Do any of these immediate barriers now exist to getting started in building an M&E system?
   i. Lack of fiscal resources
   ii. Lack of political will
   iii. Lack of a champion for the system
   iv. Lack of an outcome-linked strategy
   v. Lack of prior experience

2. How do we confront these barriers?

**Step Two: Agreeing on Performance Outcomes to Monitor and Evaluate**

As we have mentioned previously, it is important to generate an interest in assessing the outcomes and impacts the organization or government is trying to achieve, rather than simply focusing on implementation issues (inputs, activities, and outputs). After all, outcomes are what tell you whether or not the specific benefits intended have been realized.

Strategic outcomes and goals focus and drive the resource allocation and activities of the government and its development partners. These goals should be derived from the strategic priorities of the country. Issues to consider when generating a list of outcomes include:

1. Are there stated national/sectoral goals?
2. Have political promises been made that specify improved performance in a particular area?
3. Do citizen polling data indicate specific concerns?
4. Is aid lending linked with specific goals?
5. Is authorizing legislation present?
6. Other? (e.g., international development goals)

There are many different strategies available for gathering information about the concerns of major stakeholder groups. These include brainstorming sessions, interviews, focus groups, and surveys. When using these methods, try to keep the focus on existing concerns, rather than imagined future problems.

**Step Three: Developing Key Indicators to Monitor Outcomes**

As the old adage goes, "What gets measured gets done." Specification of exactly what is to be measured in order to gauge achievement of outcomes not only helps us track progress; it can also be a powerful motivating tool to focus efforts if it is done early enough in the process.

An indicator is a specific measure (or set of data) that indicates progress toward a specific target. Indicators are traditionally numerical, but could also take the form of a qualitative (verbal and/or visual) “picture” of what success would look like, and how we would know if we had achieved it.

Indicator development is a core activity in building an M&E system and drives all subsequent data collection, analysis, and reporting. The political and methodological issues in creating credible and appropriate indicators are not to be underestimated. Good indicators (we use the mnemonic: the “CREAM” of good performance) should be:

- Clear (precise and unambiguous)
- Relevant (appropriate to the subject at hand)
- Economic (available at reasonable cost)
- Adequate (able to provide sufficient basis to assess performance)
- Monitorable (amenable to independent validation)

Sometimes it is possible to minimize costs by using predesigned indicators. However, it is important to consider how relevant they are (and will be perceived to be) to the specific country’s context. Some may need to be adapted to fit, or supplemented with others that are more locally relevant.
When selecting indicators, be sure to select more than one for each outcome. Expect to add new ones and drop old ones over time as you improve and streamline the monitoring system. Sometimes you can find or build better indicators than the ones you create initially. And changing indicators regularly helps reduce the chance that people will find a way to manipulate them.

**Step Four: Gathering Baseline Data on Indicators**

The measurement of progress (or a lack of it) towards goals begins with the description and measurement of initial conditions being addressed by the goals. Collecting baseline data means essentially to take the first measurements of the indicators to find out, "Where are we today?"

A performance baseline is information (qualitative or quantitative) about performance on the chosen indicators at the beginning of (or immediately prior to) the intervention. In fact, one consideration when choosing indicators is the availability of baseline data, which will allow performance to be tracked relative to that baseline.

Sources of baseline data can be either primary (gathered specifically for this project) or secondary (collected for another purpose, but can use be used). Secondary data can come from within your organization, from the government, or from international data sources. Secondary data can save you money when acquiring data, but be careful to check that it really is the information you need - you won't be able to go back and get primary baseline data if you later find out that the secondary source doesn't meet your needs!

Possible sources of data include:

- Written records (paper and electronic)
- Individuals involved with the intervention
- The general public
- Trained observers
- Mechanical measurements
- Geographic information system
Once you have chosen your sources of baseline data, you will need to decide who is going to collect the data, and how. Here you will need to develop data collection instruments such as forms for gathering information from files or records, interview protocols, surveys, and observational instruments. As you develop these instruments, keep in mind the practical issues. Are quality data currently available (or easily accessible)? Can the data be procured on a regular and timely basis, to allow tracking of progress? Is the planned primary data collection feasible and cost-effective?

**Step Five: Planning for Improvements—Setting Realistic Targets**

Most goals in international development are long term, complex, and not quickly achieved. Thus there is a need to establish interim targets that specify how much progress towards a goal is to be achieved, in what time frame, and with what level of resource allocation. Measuring performance against these targets can involve both direct and proxy indicators as well as the use of both quantitative and qualitative data.

Referring back to the outcomes chain in Figure 11-2, we can think of long-term impacts as the end outcomes the intervention is ultimately striving to achieve. Intermediate outcomes are feasible targets we hope to achieve along the way, and within a specified, realistic (political and budgetary) timeframe. When setting indicator targets, it is important to have a clear understanding of:

- The exact baseline starting point (e.g., average of last three years, last year, average trend);
- The levels of funding and personnel resources over the timeframe for the target;
- The amount of outside resources expected to supplement the program’s current resources; and
- Relevant political concerns.

Be sure to set only one target for each indicator. If the indicator has never been used before, be cautious about setting a specific target (set a range instead). Targets can be set for the intermediate or long term; the
important thing is to be realistic about how long it will take to achieve the
target, and whether it is achievable or not.

Step Six: Building A Monitoring System

As mentioned before, a performance-based monitoring system tracks both implementation (inputs, activities, outputs) and results (outcomes and impacts). Each outcome will have a number of indicators, each of which will have a target. In order to achieve those targets, there are a series of activities and strategies that need to be coordinated and managed.

A strong M&E system, like the program itself, must be supported through the use of management tools – a budget, staffing plans, and activity planning. The construction of an M&E system needs to clearly address the challenges of ownership, management, maintenance, and credibility. Building an effective M&E system involves administrative and institutional tasks such as:

- Establishing data collection, analysis, and reporting guidelines;
- Designating who will be responsible for which activities;
- Establishing means of quality control;
- Establishing timelines and costs;
- Working through the roles and responsibilities of the government, the other development partners, and civil society; and
- Establishing guidelines on the transparency and dissemination of the information and analysis.

Step Seven: Analyzing and Reporting Findings

Analysis and reporting of M&E findings is a crucial step in this process, as it determines what findings are reported to whom, in what format, and at what intervals. Thinking carefully about the demand for information at each level of the organization, as well as the form in which that information will be most useful, is crucial. Be sure to find out when the main decision points are at the project, program, and policy levels, so that you know when M&E findings will be most useful for decision makers.

When analyzing and presenting data, be sure to compare indicator levels with the baseline and targets, and provide this information in an easy-to-
understand visual display. Compare current information to past data, and look for patterns and trends. Be careful about drawing sweeping conclusions based on small amounts of information though. The more data points you have, the more certain you can be that trends are real. An extensive list of options for data analysis and reporting is covered in considerable detail in Modules 8 and 9.

Be sure to report all important results, whether positive or negative. A good M&E system should provide an early warning system to detect problems or inconsistencies, as well as being a vehicle for demonstrating the value of an intervention. Performance reports should include explanations about poor or disappointing outcomes, and document any steps already underway to address them.

**Step Eight: Collecting and Providing Evaluative Information**

Although most of this module has concentrated on the development of a monitoring system, it is important to emphasize the important role that evaluation has in supplementing information on progress toward goals. Whereas monitoring will tell us what we are doing relative to goals, evaluation will tell us: (1) whether we are doing the right things (strategy), (2) whether we are doing things right (operations), and (3) whether there are better ways of doing it (learning).

Evaluation can address many important issues that go beyond a simple monitoring system. For example, many interventions are designed based on certain causal assumptions about the problem or issue being addressed. Evaluation can confirm or challenge these causal assumptions using theory-based evaluation and logic models (see Module 2). Evaluation can also delve deeper into an exciting or troubling result or trend that emerges from the monitoring system, e.g., finding out why girls are dropping out of a village school years earlier than boys.

When should evaluation be used in addition to monitoring?

- Any time there is an unexpected result that requires further investigation;
When resource or budget allocations are being made across projects, programs, or policies;
When a decision is being made whether or not to expand a pilot;
When there is a long period with no improvement, and it is not clear what the reasons for this are; or
When similar programs or policies are reporting divergent outcomes (or when indicators for the same outcome are showing divergent trends).

Step Nine: Using the Findings

The crux of an M&E system is not in simply generating performance-based information, but in getting that information to the appropriate users in the system in a timely fashion so that they can take it into account (as they choose) in the management of the government. Development partners and civil society have important roles in using the information to strengthen accountability, transparency, and resource allocation procedures.

Some strategies for sharing information that can be implemented at the government level include:

- Empowering the media
- Enacting “Freedom of Information” legislation
- Publishing annual budget reports
- Engaging civil society and citizen groups
- Strengthening parliamentary oversight
- Strengthening the office of the auditor general

Understanding the utility of performance information for various users is a key reason for building a monitoring system in the first place. Key users in many societies who are often left out of the information flow are citizens, NGO groups, and the private sector. The point being that monitoring and evaluation data have both internal (governmental) and external (societal) uses that need to be recognized.
Step Ten: Sustaining the M&E System Within Your Organization

A long-term process is involved in ensuring the longevity and utility of a performance-based M&E system. There are five key criteria that are seen to be crucial to the construction of a sustainable system: demand, structure, trustworthy and credible information, accountability, and capacity. Each of these dimensions needs continued attention over time to ensure the viability of the system.

Demand. One way of building demand for M&E information is to build in a formal structure that requires regular reporting of performance results (e.g., legislation, regulation, or an annual reporting requirement for organizational units). Another useful strategy is to publicize the availability of this information, thereby generating demand from government bodies, citizen groups, donors, and the general public. Third, by making a practice of translating strategy into specific goals and targets, those interested in the organization’s strategic direction will also be interested in monitoring and evaluation against the associated goals and targets.

Structure. One of the most important structural interventions for institutionalizing an M&E system is the creation of clear, formal lines of authority, and responsibilities for collecting, analyzing, and reporting performance information. Second, issue clear guidance on who is responsible for which components of the M&E system - and build this into their performance reviews. Third, build a system that links the central planning and finance functions with the line/sector functions to encourage a link between budget allocation cycles and the provision of M&E information. Finally, build a system where there is demand for information at every level of the system, i.e. there is no part of the system that information simply “passes through” without being used.

Trustworthy and Credible Information. The performance information system must be able to produce both good and bad news. Accordingly, the producers of this information will need protection from political reprisals. The information produced by the system should be transparent, and subject to independent verification (e.g., a review by the national audit office of the government, or an independent meta-evaluator).
Accountability. Consider the external stakeholders who have an interest in performance information, and find ways to share transparent information with them. Key stakeholder groups to consider include civil society organizations, the media, the private sector, and the government.

Capacity. Organizational capacity for evaluation was one of the first things we considered in the first step of building an M&E system. Key elements to build on here include: sound technical skills in data collection and analysis, managerial skills in strategic goal setting and organization development, existing data collection and retrieval systems, the ongoing availability of financial resources, and institutional experience with monitoring and evaluation.

Concluding Comments

As noted earlier, there is no orthodoxy that the building of an M&E system has to be done according to these ten steps. One can posit strategies that are more detailed in the number of steps as well as those with fewer numbers (four of which we cited earlier.) The issue is one of ensuring that key strategies and activities are recognized, clustered together in a logical manner, and then done in an appropriate sequence.
Exercise 11-1:
Readiness Assessment

Instructions:

How ready is your organization to design and implement a performance-based monitoring and evaluation system? Rate your organization on each of the following dimensions, giving comments to explain your rating. Discuss with a colleague any barriers to implementation, and how they might be addressed.

1. Incentives (circle one rating)

   plenty of incentives  a few incentives  several disincentives

   Comments:

Strategies for improvement:

2. Roles and Responsibilities (circle one rating)

   very clear  somewhat clear  quite unclear

   Comments:

Strategies for improvement:
3. Organizational Capacity (circle one rating)

   excellent         adequate         weak

   Comments:

   Strategies for improvement:

4. Barriers (circle one rating)

   very few barriers   no serious barriers   serious barriers

   Comments:

   Strategies for improvement:
Exercise 11-2: Identifying inputs, activities, outputs, outcomes, and impacts

Instructions:

From the list below, identify whether each of the following is an input, an activity, and output, an outcome, or an impact. If possible discuss with a colleague, and explain the basis on which you categorized each one.

- Increased numbers of women-owned micro-enterprises
- Government makes available funds for micro-enterprise loans
- Government approves 61 applications from program graduates
- Course trainers identified
- 72 women complete training
- Income of graduates increases 25% in first year after course completion
- 100 women attend training in micro-enterprise business management
- Information provided to communities on availability of micro-enterprise program loans
Exercise 11-3:
Developing Indicators

Instructions:

Identify a policy, program, or project with which you are familiar. What is the main impact the program is trying to achieve? What are two intermediate outcomes you would expect to see if the intervention was on track to achieve that outcome.

Impact (End-Outcome): __________________________________________

Intermediate Outcome 1: _________________________________________

Intermediate Outcome 2: _________________________________________

Starting with the intermediate outcomes, identify two or three indicators you would use to track progress against each of the above. If possible, try to include at least one indicator that lends itself to a qualitative data collection strategy, and one that could come from a secondary source.

Intermediate Outcome 1: _________________________________________

   Indicator (a): ________________________________________________

   Indicator (b): ________________________________________________

   Indicator (c): ________________________________________________

Intermediate Outcome 2: _________________________________________

   Indicator (a): ________________________________________________

   Indicator (b): ________________________________________________

   Indicator (c): ________________________________________________
Impact (End-Outcome):

Indicator (a):

Indicator (b):

Indicator (c):
Additional Reading:


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