An Overview of Monitoring and Evaluation

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Why Do We Need Monitoring and Evaluation?

So you planned and implemented a programme of intervention – a project, a community micro-enterprise or livelihood. What comes next? You will need to monitor after some time whether the programme or project is going as planned. You will also need to evaluate at some point whether it is achieving what it set out to achieve in the beginning (programme/project objectives), if it is resulting in the desired outcomes and is making an impact; or if adjustments and changes need to be made to the strategies, approaches, or the programme as a whole, to make it more effective.

Monitoring and evaluation (M&E) is one of the major elements of managing programmes or projects. Without it, project transparency, accountability, and impact cannot be ensured. Therefore, M&E should be made an integral part of any project or programme right from the beginning – from planning – up to the end. Without a good project plan, an M&E strategy cannot be effective.

M&E provides us with ways of learning from experience. Regularly conducting it and implementing its findings and recommendations improves service delivery, resource planning and allocation, and shows the value of resources allocated for key or intended stakeholders.

Monitoring and evaluation

- improves programme quality and management;
- enables development learning on what works and what do not and why (lessons learned), and identifies successful strategies, approaches, and programmes;
- weighs resource allocation against performance (outputs), and improves accountability (who's responsible/accountable for what) and encourages transparency or above-ground actions.

It provides useful feedback to stakeholders including decision makers on development impact and achievements, and validates as well as justifies programmes to donors, partners, and other constituencies.

What is monitoring and evaluation?

Monitoring and evaluation are two different things, so it is good to make the distinction. **Monitoring** is the process of systematically and regularly collecting data on a programme or project over time to:
• aid management in decision-making,
• let stakeholders know what is happening, and
• enable donors to know and be able to show the value of their investment.

Evaluation, on the other hand, is the in-depth assessment of programme performance and progress in achieving its intended objectives, outcomes, and impact (see box 2 for examples). Evaluation relies on data generated through monitoring activities as well as information obtained from other sources. It is selective and should be conducted as objectively and systematically as possible.

Conventional Monitoring and Evaluation

There are at least seven steps in designing a conventional M&E system.

Step 1. Plan your M&E system according to your project resources and objectives. Prepare a logical framework of your project and review it. (Refer to box 2 to see what a LFA looks like.) Set your M&E objectives while analysing the project's Logical Framework. This will guide the conduct of your project's M&E.

How to conduct logical framework analysis

Logical framework analysis (LFA) is a tool for making plans, analyses, assessments, follow-up actions, and evaluation. A logical framework (Table 1) states all the key components of the project and shows how the activities and resources are logically linked to the goal, through outputs and objectives, as well as how achievements can be observed. The statements should be presented in a systematic, concise, and coherent way, thus clarifying the logic of how the project is going to work.

Logical framework analysis consists of nine basic steps.
1. Analyses of the project, the socioeconomic and physical environment, and related geographic information
2. Stakeholder analysis – analyses of who benefits, who suffers, and who gets what as a result of the project
3. Problem analysis – analysis to see the core problem and its causes
4. Objectives analysis – analysing how to solve the problem and its causes
5. Action planning – a plan of activities
6. Resource planning – allocating financial and human resources for the project
7. Indicators of objectives – developing indicators to measure success
8. Risk analysis and risk management – analyses of potential threats to project operations and success and how these can be tackled

Table 1: **Log Frame Analysis**

Statements	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions and Risks
Goal/Impact This is the highest order of objective to which the project intends to contribute, and may be realised by the end or even some time after the project is over.	Measures to verify the achievement of the goal in terms of quality, quantity, and time - how can we find out whether the goal has been reached	Sources of data needed to verify the status of the goal level indicators	Important external factors necessary for sustaining project impact in the long run
Purpose/Objectives/Outcomes This is a more specific objective which a project is responsible to achieve at the end. It describes a change – physical, or in behaviour or attitude of stakeholders – that a project intends/commits itself to bring about.	Measures to verify the achievement of the purpose(s)/objective(s) in terms of quality, quantity, and time	Sources of data needed to verify the status of the purpose level indicators	Important external factors necessary for achieving the goal/ impact
Outputs These are immediate results as a consequence of completed activities.	Measures to verify the achievement of the outputs in terms of quality, quantity, and time	Sources of data needed to verify the status of the output level indicators	Important external factors necessary for achieving the purpose/ outcomes/objectives
Activities Actions undertaken to generate desired outputs	**Inputs** The types of inputs that are required and their expected cost e.g., people, equipment, vehicles, printing, travel, others	Sources of data needed to verify the status of the activity level indicators	Important external factors necessary for achieving the outputs

Analysing problems in the field helps to set clear goals and objectives

Box 1: **S-M-A-R-T indicators**

Specific Is the indicator specific enough to measure progress towards expected results?

Measurable Is the indicator a reliable and clear measure of results?

Attainable Are the results in which the indicator seeks to chart progress realistic and achievable?

Relevant Is the indicator relevant to the intended outputs and outcome?

Track-able + time-bound Are data available at reasonable cost and effort within the stipulated time?

Source: "RBM in UNDP: selecting indicators".
UNDP Evaluation Office "Handbook on Monitoring and Evaluating for Results", (2002).

9. Analysis of assumptions – analyses of the critical external factors which are out of project control.

Step 2. Develop indicators to measure objectives and outputs. An indicator is a pointer or a measure used to see whether the project or programme is achieving what it intended to achieve and whether it is going in the right direction. Indicators should be SMART (see box 1).

An indicator covers:
- **Quantity**: How much is required?
- **Quality**: Of what quality?
- **Place**: Where will it happen?
- **Time**: When is the indicator expected to be achieved?

Table 2: **Examples of Impact, Outcome, and Output Indicators**

	Definition	Example
Impact Indicator	These are measures of higher level results or effects of the project, hence its impact. Usually impact indicators are used for evaluation at the end of the project.	**Impact:** Poor households from Qonoq village earn increased incomes from the sale of farm produce as a result of the project
		Impact indicator: Number of poor households benefitted socially and economically. (Socially and economically may also be defined in clearly measurable terms.
Outcome Indicator	Measures showing the medium-level changes or outcomes as a result of project outputs.	**Outcome:** People from Qonoq use the bridge to transport their farm produce to the market.
		Outcome indicator: Number of villagers who have started doing business in the nearby market.
Output Indicator	These are measures to know the project deliverables or products in a more concrete manner.	**Output:** A bridge is constructed between village Qonoq and a nearby market.
		Output indicator: The bridge is constructed following engineering specifications.

An example of a complete indicator with all of the SMART elements is: 50 mounds of drought-resistant potatoes seed produced in Faizabad by the second year of the project. Examples of indicators for the impact, outcome and output levels are given in Table 2.

Step 3. Identify methods and tools needed for data collection. There are many M&E methods and tools, some important commonly used ones are provided in the following section.

Step 4. Get feedback. At this stage, project staff must plan a meeting, workshop, or a gathering of relevant people to gain their views as well as to share data and analyses on the work done by the monitoring team. This exercise is called 'critical reflection' because the project team sits down with the implementers and community representatives to seek their feedback on the work being done in the project area. This exercise will help the monitoring team adjust the M&E system based on feedback received.

Step 5. Adjust the M&E plan. Based on feedback, adjust the M&E plan in order to identify the gaps in the M&E capacities and to see what other resources are needed to meet the requirements of the M&E exercise.

Step 6. Share the M&E findings with relevant stakeholders and donors. This action is expected to gather suggestions and concrete recommendations for decision making.

Step 7. Based on the suggestions, recommendations, and decisions, **make adjustments, changes, and modification** accordingly **to project plans.**

Community-based participatory monitoring and evaluation

Community-based participatory monitoring and evaluation (PM&E) is based on the principle that stakeholders and beneficiaries should actively participate in the entire M&E process, including all its seven steps. Bringing the primary stakeholders or beneficiaries – usually the communities – together in a common platform enables them to influence the process of change in their lives in their own way. They should share the responsibility for and control over the content, process, and results, and participate in identifying and taking corrective measures. Here, the intention is not just to monitor project performance but, more importantly, build ownership of the beneficiaries and empower them.
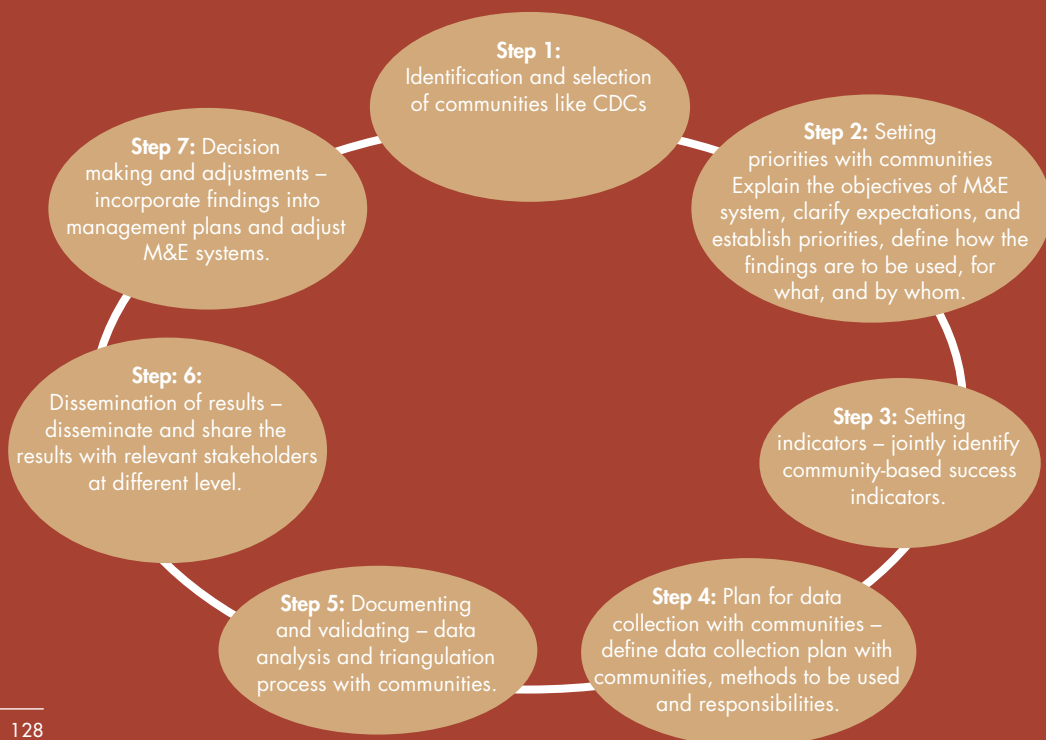
There are, generally, seven steps involved in setting up a community-based participatory monitoring and evaluation system, as explained in Figure 1.

Identifying monitoring and evaluation methods and tools

A number of participatory development tools and techniques may be used in conducting M&E or community-based PM&E (see Box 2). Which tool to use will depend on the situation, the time element (how much time is provided to conduct and complete the process) and the information that needs to be gathered. Rapid rural appraisal (RRA) and participatory rural appraisal (PRA) are useful if a quick assessment needs to be made and there is little time for a more in-depth or precise investigation.

Figure 1: **Community-based participatory monitoring and evaluation system**

Step 1: Identification and selection of communities like CDCs

Step 2: Setting priorities with communities Explain the objectives of M&E system, clarify expectations, and establish priorities, define how the findings are to be used, for what, and by whom.

Step 3: Setting indicators – jointly identify community-based success indicators.

Step 4: Plan for data collection with communities – define data collection plan with communities, methods to be used and responsibilities.

Step 5: Documenting and validating – data analysis and triangulation process with communities.

Step: 6: Dissemination of results – disseminate and share the results with relevant stakeholders at different level.

Step 7: Decision making and adjustments – incorporate findings into management plans and adjust M&E systems.

Box 2: **Some important PM&E tools**

- **Participatory social mapping**[*] This tool is generally useful to understanding the infrastructure, resources, and settlements within a village.
- **Matrix ranking and scoring**[*] This tool is particularly useful to know the communities' priorities and preferences.
- **Focus group discussion** Discussions are useful if you want to get in-depth information on specific topics or themes from specific segments of the society. PM&E persons might develop some important points and discuss them with the community. This is useful in verifying or validating already available information.
- **Transect walk**[*] This refers to a walk, which the PRA team has to take straight across the village in order to understand its physical environment.

Social mapping exercise in Badakhshan province

[*] Most of these tools are also found in the chapter, 'Working with Communities' as 'Some Effective Participatory Tools'

Rapid rural appraisal (RRA)

PRA provides quick feedback on performance at project midstream or at any stage of the project. It is a need-based tool which requires little resources. RRA methods consist of different tools such as key informant interviews, focus group discussions, direct observation, and others.

Participatory rural appraisal (PRA)

PRA is a rapid appraisal tool focused on sharing learning between local people and 'outsiders'. It enables development managers and local people to assess and plan appropriate interventions collaboratively, often using visual techniques so that non-literate people can participate.

Formal surveys

This is a standard tool for collecting information on identified indicators from a large number of people or stakeholders. Surveys mostly poll or take the opinion of or information from a sample population, for example, community households, or specifically women, or men, or farmers, among others. In conducting surveys, the purpose of the survey and what is being surveyed should be clear. Surveys of the same sample population can be conducted at various times to compare if a change has taken place over time.

Types of surveys

Integrated household survey. A household survey that serves many purposes and covers all socioeconomic dimensions of livelihood; this kind of survey is applicable for all types of interventions and can be tailored to the needs and conditions of the project and according to the project budget and other resources. http://www.worldbank.org/lsms/

Core welfare indicators questionnaire. This is a household level survey which specifically targets to get information on indicators of social development. http://www4.worldbank.org/afr/stats/cwiq.cfm

Client satisfaction survey. A tool to assess delivery of services provided by different agencies targeting specific clients http://www4.worldbank.org/afr/stats/wbi.cfm#sds

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Core welfare indicators questionnaire: is also a household level survey, which specifically targets social development indicators. http://www4.worldbank.org/afr/stats/cwiq.cfm

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Resources needed

- Facilitator to conduct the exercise
- Stakeholders to participate
- At least two days to complete depending on the project

For Further Reading

Bond, SL; Boyd, SE; Rapp, KA (1997) Taking stock: A practical guide to evaluating your own programs www.horizon-research.com/reports/1997/taking_stock.php

Clearing house for assessment, evaluation, and research information http://ericae.net

Earl, S; Carden, F; Smutylo, T (2001) Outcome mapping: Building learning and reflection into development programs, IDRC. www.idrc.ca/en/ev-9330-201-1-DO_TOPIC.html

Free management library – evaluation activities in organisations www.managementhelp.org/evaluatn/ evaluatn.htm

Guide to project evaluation: A participatory approach. www.phac-aspc.gc.ca/ph-sp/resources-ressources/ guide/index-eng.php

Monitoring and evaluation NEWS. www.mande.co.uk

Online Evaluation Resource Library http://oerl.sri.com

Outcome Mapping Learning Community www.outcomemapping.ca

The Community Tool Box, Chapter 38 - Some Methods for Evaluating Comprehensive Community Initiatives http://ctb.ku.edu/en/tablecontents/chapter_1039.htm

The 2002 User-Friendly Handbook for Project Evaluation. www.nsf.gov/pubs/2002/nsf02057/start.htm

The International Bank for Reconstruction and Development/The World Bank (2004) Monitoring & Evaluation: Some Tools, Methods & Approaches. www.oecd.org/dataoecd/54/28/36484032.pdf

UNDP (2002) Handbook on Monitoring and Evaluating for Results. www.undp.org/eo/documents/HandBook/ME-HandBook.pdf

UNDP/GEF (2004) Participatory Monitoring and Evaluation Strategy

UNFPA (2004) The Programme Managers Planning, Monitoring and Evaluation Toolkit www.unfpa.org/monitoring/toolkit.htm