

Module Seven

Monitoring and Evaluation of Learning



MONITORING AND EVALUATION (M&E)

M&E is a process that should take place before, during, and after certain activities to assess the effects of these activities on a community or group of people.

The table below defines Monitoring and Evaluation and their relationship:

Monitoring	Regular gathering of data, which will be transformed into information, and which will then be the basis of evaluation. Monitoring points (time and place) should be planned beforehand as part of module design.
Evaluation	The process of making a judgment by comparing the results of an activity with the standards for the performance of such an activity. Evaluation is used to determine efficiency, effectiveness, and impact of an activity. It includes looking for differences between planned and actual results and identifying alternative courses of action for the future.

As a trainer, you will have to teach the participants the *what*, the *when*, and the *how* of M&E, but also track the changes throughout the program. This should be done in a collaborative way with the trainees.

FLOW OF M&E

The purpose of the MAMTI Monitoring & Evaluation (M&E) report is to provide a MAMTI Project “score card” that tracks project progress. The following are components of the score card:

Inputs: The physical, human, financial, and capital resources applied to the project and to its component activities.

Outputs: The deliverables directly generated by the project activities that reflect changes in knowledge, skills, and attitude. Examples include

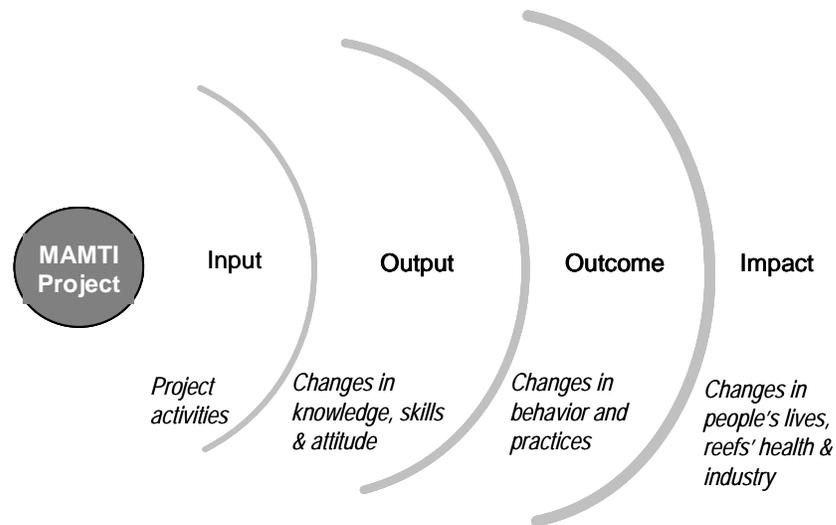
CAMP documents, CAMP Advisory meeting notes, trial shipment records, etc.

Outcomes: Behavioral changes in people or institutions as a result of the project inputs and outputs. Sustainable and meaningful outcomes are reached when the project beneficiaries take ownership of the project outputs. For example, the CAMP advisory meeting is an *output* since the MAMTI community organizer can help facilitate and organize it. In contrast, meeting attendance and compliance with CAMP policies over time are *outcomes*, as they depend on sustained stakeholder buy-in and become integrated into the community's culture.

Impacts: The long-term environmental/biophysical, social, financial, and market-based changes that occur as a result of the maintained behavioral changes from the project.

These four monitoring components are inter-related. The project activities, or *inputs*, (e.g., training collectors in certifiable practices) are expected to generate a “flow on effect” that results in project outputs (e.g., certified collectors), outcomes (e.g., consistently high quality organisms), and impacts (e.g., better life due to increased income). The diagram below demonstrates the relationships among the major components being monitored.

M&E Conceptual Framework



A successfully managed M&E program will provide those who are implementing the MAMTI project with the following:

- Information and analyses needed to guide the project towards its identified goals and objectives;
- Progress assessment to identify areas for and means of future improvement;
- A common framework for mutual understanding and performance monitoring among project team players;
- A fully integrated record of project activities to keep those involved informed of the status of the project;
- A synopsis of project successes and failures to serve as a learning tool for project members and stakeholders; and
- A consistent analysis of project impacts in any given site at any given time.

While M&E provides a helpful means of analysis, it is important to keep in mind some kinds of problems that can stand in the way of project success. Common problems for MAMTI include:

- **Non-compliance with documentation requirements.** Not all certified entities have been in full compliance with the documentation requirements.
- **Species mis-identification.** Collectors use local names that vary from area to area, and this can lead to confusion or mistakes in species identification.
- **Lack of income data.** Some exporters do not disclose their prices. Relationship might affect the price an exporter is willing to pay. Thus, it is difficult to ask for a standard, or fix price list.

For a monitoring and evaluation program to be effective, both trainers and learners must fulfill several responsibilities, listed below:

TRAINER RESPONSIBILITIES

- Provide all necessary pre-program work and program planning.
- Identify at the start of the program the knowledge and skill level of the trainees (i.e., the indicators).
- Provide training and learning resources to enable the learners to learn within the objectives of the program and achieve the learners' objectives.
- Prepare assessment tools for the training and for the coaching and mentoring process.
- Assess progress during and after coaching and mentoring activities using the M&E strategy based on indicators identified earlier.

- Monitor learning as the program progresses and after; this includes monitoring
 - the training activities (e.g., with pre-training and post-training tests) and,
 - the coaching and mentoring activities.
- Ensure that learners produce an action plan to reinforce, practice, and implement learning after the training.
- Make recommendations on how to address the situation when needed

LEARNERS RESPONSIBILITIES

- Be aware of the M&E process and its benefits.
- Be involved in the planning and design of the training, if possible (i.e., comment on how to improve the materials).
- Be involved in the planning and design of the coaching and mentoring activities. For example, during the training (Module 7 TOT, Activity 1), learners should participate actively in defining their current and potential needs in terms of business development.
- Complete a personal action plan during and at the end of the training for implementation on return to work, and, later, put this into practice with support from the coach or mentor.
- Take an interest in and support the M&E process. Thus, provide accurate information by conscientiously keeping track of records, sales, expenses, savings, costs, and so on.

N.B. Although the principal role of the trainee in the program is to learn, the learner must be involved in the evaluation process. This is essential, as without the learner’s comments a complete evaluation would not be possible, nor would the new knowledge and skills be implemented. If trainees neglect this responsibility, the business training loses its value. Trainees will assist more readily if the process avoids the look and feel of a paper-chase or number-crunching exercise. Instead, make sure trainees understand the importance of their input.

TYPES OF EVALUATION

Formative Evaluation:	Whether or not...
<ul style="list-style-type: none"> ➤ Inputs ➤ Modules ➤ Learning events ➤ Outputs 	<ul style="list-style-type: none"> ✓ Skills, knowledge and aptitudes were changed ✓ Objectives were achieved ✓ Learning occurred

	✓ Integrity was kept
Summative Evaluation:	✓ Assessment of program's net contribution to development
➤ Total training program	✓ Comparison of alternative uses of resources
➤ Use of resources	✓ Analysis of Cost/Benefit Ratio
➤ External impact	

A) Formative evaluation

A good example of formative evaluation is the “pre-training test” and “post-training test” that are given to students before and after a module or session. These evaluations provide the trainer with quantitative data to assess learning. Generally, these are short, simple tests that demonstrate how much participants have learned and retained from the training.

B) Summative evaluation

A good example of a summative evaluation is the “Action Plan” or “Board Booklet”. These evaluation types are usually done throughout the training, with the participant filling out a booklet with qualitative information and comments, but can also be done during the mentoring phase. They are usually presented as a Learning Questionnaire, which can be a relatively simple instrument asking the learners:

- What they have learned on the program
- What useful reminders they got from the materials
- What was not included that they expected to be included
- What else they would have liked to have been included.

Scoring ranges can be included or left blank to be filled out by the trainee, but these are not as important as the text comments made by the learners.

The trainer collects the questionnaires at the end of the training and can use them to make appropriate changes.

CHOICE OF INDICATORS:

Preparing monitoring activities (refer to Session 1, CCIF Coaching and Mentoring Process Scheme, Point 3) requires clear and comprehensive indicators. Indicators (also called business indicators) allow analysis of economic

performance, such as business development, potential improvement of business skills over time, and predictions of future performance.

Indicators can include various indices. For MAMTI-related business, some relevant indicators are below:

Organization	Principal role	Indicators
MAC	best practices	Screening process Fishing methods (e.g., cyanide or nets) Handling the fish (e.g., segregation) Mortality rate Use of documentation Others:
Reef Check	Resource monitoring	State of the reef Health of the fish Amount of fish per species TAC (Total Allowable Catch), for all fish including endangered species Others:
CCIF	Sustainable business	Book keeping practices Relation with exporters Organization among fishers and coordinators Management Ability to track costs and benefits Saving and long-term planning Others:

Economic indicators are primarily studied to assess improvement during business cycles. It is important to define these indicators properly before establishing any kind of M&E system.

It is also important to understand that indicators change over time depending on the objectives and goals of a project or organization. Thus, reviewing and updating them should be part of a good project management.

LEVELS OF EVALUATION

A) Standard levels of evaluation

Level of evaluation is established after the indicators have been determined. There are four standard levels of program evaluation: Reaction; Learning; Behavior Change; and Community Change Level. Mentors must select the appropriate level for the project. A more complete evaluation could involve looking at more than one level of learning. The table below outlines some potential methods to be used in each evaluation type.

Level	Methodologies
Reaction level – what participants liked or did not like, or how they reacted <ul style="list-style-type: none"> ➤ During and right after training ➤ In the classroom ➤ Out of the classroom 	Observation Listening Talking informally Reaction scales Questionnaire Formal interviews, informal discussions
Learning level – cognitive changes <ul style="list-style-type: none"> ➤ During and right after training ➤ In the classroom ➤ On the job 	Informal rating scales Informal Q & A Learning points remembered Formal and objective tests Written essays Formal rating scales
Behavior change level <ul style="list-style-type: none"> ➤ During, right after, after training ➤ In the classroom ➤ Out of the classroom 	Observations Informal talks/discussions Letters/diaries Simulations Role plays Rating scales
Community change level <ul style="list-style-type: none"> ➤ Out of classroom ➤ Long-range impact ➤ Several years after training 	Observations <ul style="list-style-type: none"> • Changes in quality of life • Changes in relationships • Cost/benefit analysis

B) Objective levels of evaluation

Also, you could decide to base your monitoring strategy on the objectives that you have set while designing your session (Review Module 1 Session 3-Objective setting). In that case you would choose your evaluation strategy depending on the objective level you had determined: Knowledge, Comprehension, Application, Analysis, Synthesis and/or Evaluation.

The following table gives examples of strategies and tools for the 5 objective levels.

Objective Level	Examples of Evaluation Strategies & Tools
Cognitive:	
<p>Thought or knowledge: Students' ability to remember facts, data, names, places, events. Knowledge level simply involves the recalling of specific items of information.</p>	<p>Quizzes Exams Question and answer inside the classroom</p> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>Comprehension: Students' ability to describe and define concepts and constructs; to discern between different concepts; to explain concepts and distinguish them from each other; to enumerate. Comprehension involves more than knowledge. For example, a person who comprehends something can not only recall it but can paraphrase it, review it, define it, or discuss it to some extent.</p>	<p>Book reviews Exams Reports Drawing; art work Poems; songs; comedy Movie analysis/ play or sitcom analysis</p> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>Application: Students' ability to apply concepts in real life situations and in decision-making whenever applicable. The person can apply something can do everything in Categories 1 and 2 above. He or she can demonstrate the ability to take information of an abstract nature and use it in concrete situations. It is this ability to apply information to new problems that makes this process unique.</p>	<p>Project (group or individual) Community assistance Play or other forms of production; theatre Slogan writing Games/challenges/demonstrations</p> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>Analysis: Students' ability to divide the concepts into smaller</p>	<p>Term paper Book review</p>

Objective Level	Examples of Evaluation Strategies & Tools
<p>parts and to describe their relationships to one another. The essential ingredients of analysis include breaking information down into its constituent parts and revealing the relationship of those parts.</p>	<p>Case study Diary Movie review</p> <hr/> <hr/> <hr/> <hr/>
<p>Synthesis: Students' ability to bring together the parts that were analyzed into a whole, integrated package, bringing new meaning to the materials covered. Synthesis is a word used to describe the process of pulling together many elements or parts so as to form a whole. It is the rearranging, combining, and relating of parts that makes this process unique.</p>	<p>Play or other forms of production Interview of experts and reports on the interviews Scrapbook New metaphors or ways of thinking about previously comprehended material</p> <hr/> <hr/> <hr/> <hr/>
<p>Evaluation: Students' ability to see both sides of a question; to explain the pros and cons of events and concepts; to judge concepts and explain their choices; to convince others about their choices; a new level of advocacy. Judgments about the value of materials or methods are evaluative judgments. This process requires abilities of Categories 1 through 5 as well as some abilities unique to this category.</p>	<p>Debate Focus group discussions Scrapbook Portfolio Advocacy programs</p> <hr/> <hr/> <hr/> <hr/>

Activity: Prepare an evaluation for the training program you have designed (Module 1) following the steps below. (30 min)

1. Prepare a final list of the important monitoring indicators for your session.
2. Select the appropriate type of evaluation.
3. Determine the level of evaluation that the program will need. (Choose between standard and objective levels)
4. Select appropriate tools to evaluate the program you have designed according to the objectives related.
5. Think about the purposes and practical application of monitoring in a training program.
6. Prepare prototype tests to measure learning before (pre-training), during, and/or after (post-training) the program.
7. Finalize the monitoring and evaluation tool(s) for your session.
Your strategy should cover the following points:
 - ✓ methodology (related to which indicator),
 - ✓ time required,
 - ✓ frequency,
 - ✓ etc.
8. Present your evaluation briefly.
9. Have your peers provide feedback.