Food and Agriculture Organization of the United Nations

Developing a Monitoring and Evaluation Plan for Food Security and Agriculture Programmes

Monitoring and evaluation indicators: basic concepts

Text-only version

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LEARNING OBJECTIVES

At the end of this lesson, you will be able to:

- provide a definition of "indicator";
- describe what indicators are particularly suited to M&E;
- explain the difference between specific and generic indicators;
- explain the difference between elementary, derived and compound indicators; and
- explain the difference between programme and context indicators.

INTRODUCTION

Selecting the right indicators is a crucial step in building your M&E plan. Before making this selection, there are a few concepts that you should know in order to make the right choices.

What is an indicator?

Can numerical indicators provide information to answer both quantitative and qualitative questions?

What are the differences between: specific and generic indicators; elementary, derived and compound indicators; and programme and context indicators?

WHAT IS AN INDICATOR?

An indicator can be defined as the measurement of, for example

an objective to be met →|	Share of targeted government officers who attended the training.
an effect →|	Share of trainees who used their new skills to improve the legislation on rural livelihood
quality →|	Share of trainees who would recommend this course to their colleagues.
a resource used →|	Share of the training sessions' budget used.
a context variable →|	General level of awareness on the issue of rural livelihood in the government and the administration.

M&E indicators should help actors of public interventions to **communicate**, **negotiate** and/or **make decisions**.

Most of the time, indicators in an M&E system will focus on numerical (e.g. a share, a number) and categorical (e.g. "traffic lights" or scores) because they are better suited to decision-making.
In an evaluation, where you want to understand why your programme works or does not, you may use a larger variety of indicators, including non-numerical ones.

In an evaluation, in which you will collect a lot of data to answer a specific question, you can have **non-numerical indicators**. These are sometimes called "**descriptors**".

These indicators are relevant for everything related to governance, political influence, etc. An example of a descriptor could be "top government officials think that enhancing rural livelihoods is a priority". Your answer to that descriptor will be a detailed, perceptive description of the actual situation.

Can indicators respond to both quantitative and qualitative questions?

Quantitative or numerical indicators can perfectly provide information to respond to quantitative and qualitative questions

Quantitative question		**Quantitative output indicator**
How many people have been trained?	⇉	Number of persons trained via training programme.
Qualitative question	⇉	**Quantitative outcome indicator**
Did the trainees use what they learned?		Share of trainees who said they applied their new knowledge in a professional setting.

In this example, quantitative indicators have been used to answer both qualitative and quantitative questions. However, there are qualitative questions which require the use of qualitative measures. For example, to answer questions like, "Are they the most relevant persons to train?" or "What are the conditions to see such a change in practices?", you would need some kind of feedback workshop or an evaluation.

A good indicator must provide **simple information** that both the supplier and the user can easily communicate and understand. To this end, you can use **quantitative indicators**, even for qualitative information.

For example, surveying beneficiaries to find out about changes in **knowledge, attitudes or practices** (sometimes called "KAP surveys") is quite straightforward and easy to do.

Example of using scoring for qualitative information

For instance, if you hold **feedback** workshops with the participants after each training session and want to use the results, you could use a categorical indicator with three grades, and say that the feedback was either:

- "excellent";
- "good with minor complaints";
- "not good enough".

It would then be quite easy to make a decision based on these results. Scoring is also very good to monitor the **development of new policies**. Counting the number of new laws is not relevant: one law is enough if it addresses the issue at stake. It is possible to note the legal framework against a **list of criteria** to obtain a global score that can evolve year after year.

Specific and generic indicators

An indicator is said to be **ad hoc or specific** when it has been constructed specifically for the M&E of the programme. An indicator is **generic** when it is recognized as a standard way [1]to measure a given phenomenon.

Example of generic or specific indicators

Share of targeted people who gained new skills following the training.	Generic output
Share of Ministry of Agriculture (MoA) officers who are now able to design and implement an M&E system following new regulations in the realm of rural livelihoods.	Specific output
Share of trained MoA officers who say that they were able to include more relevant M&E specifications in their legal production in the year following the course.	Specific outcome
Share of trainees who used what they have learned.	Generic outcome

When building your M&E system, you will need to **balance both types of indicators**.

SPECIFIC INDICATORS	GENERIC INDICATORS
Specific indicators, are usually better at measuring what you are trying to achieve,	Generic indicators, on the other hand, are useful for comparison purposes. Because they

[1] **Generic indicators** are usually identified by an organization or by consensus among professionals. In the latter case, this is usually because they are quality indicators: they provide needed information, are unambiguous, easy to measure, etc.

especially at the outcome level. Actually, in an evaluation that deals with outcomes and impacts most, if not all indicators, are ad hoc.	are often used in a large variety of contexts, they are also easier to deal with.

Generic indicators are typically a good choice to measure the outputs of most 'classical activities' such as training or investment programmes. But you may need to revert to ad hoc indicators when you are experimenting with a new set of activities.

In all cases, try to ensure that all projects within a programme use, as much as possible, the same set of indicators for similar activities, and that these indicators can feed your own programme indicators.

Elementary, derived and compound indicators

ELEMENTARY INDICATORS	An elementary indicator provides **basic information** on which other indicators can be built. *For example:* number of trainees; number of participants in a meeting; number of visits on a Web site. *How to use them:* Elementary indicators are mostly the **raw material** that you will collect before analysis.
DERIVED INDICATORS	A derived indicator is based on the calculation of the **ratio between two elementary indicators.** *For example***:** The budget consumption rate is an indicator obtained by dividing the budget already spent by the total budget**.** *How to use them:* In most cases, it is better to use **ratios** (i.e. derived indicators) which will be better at showing if you are about to reach the expected target (e.g. 70 percent of the target was trained).
COMPOUND INDICATORS	A compound indicator is **the weighted sum of several elementary or derived indicators**. The indicators considered to be the most important are therefore given the most weight, while those considered to be least important are given the least weight. The value of the compound indicator is the sum of all the adjusted values of these indicators. *For example*: The Human Development Index (HDI) is an indicator calculated from several simpler indicators: life expectancy at birth, mean years of

schooling and expected years of schooling, and gross national income per capita.

How to use them:

Compound indicators can answer a complicated question with a single figure or a single score and are therefore useful for **communication purposes**, or to gain a **broader view** of a topic. However, the more complicated an indicator, the more difficult it is to decipher and, accordingly, to make the right decision.

Programme and context indicators

PROGRAMME INDICATORS	CONTEXT INDICATORS
A programme indicator aims at measuring the **progress of your programme**. It does so by monitoring the changes that are expected on targeted publics or territories. This indicator would answer the following questions: Was the targeted population reached? Did the targeted population change their attitude towards the issue at stake?	In contrast, context indicators apply to an **entire territory, population or category of population**. Context indicators are usually relevant to your programme, but their level is unlikely to change as a consequence of it. A context indicator always applies to the entire eligible territory or targeted public, without distinguishing between those who have been or will be reached by the programme and those who have not. This indicator would answer the following questions: What is the average education level of government officers in the country? Was rural livelihood a top priority in the country before the start of the programme?

Context indicators are often good at helping you interpret your programme indicators. For instance, if you know that 50 percent of farmers in the country earn less than US$500 a year (context indicator), and that 90 percent of your beneficiaries earn more than US$1 000 a year (programme indicator), it is likely that your programme is not good at targeting the poorest farmers.

SUMMARY

An indicator can be defined as the measurement of:

- an objective to be met;
- quality;
- a context variable.
- an effect;
- a resource used; or
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In an M&E system it is advisable to focus on **numerical and categorical indicators**, as they are best suited to the needs of accountability and decision-making.

Quantitative or numerical indicators can provide information to respond to both **quantitative and qualitative questions**.

In defining your M&E system, you will need to balance:

- **specific** or "ad hoc" indicators and **generic** or "standard" indicators;
- **elementary**, **derived** and **compound** indicators; and
- **programme** and **context** indicators.