

Indicators are commonly used in development interventions to provide evidence of change, and form an important part of most M&E systems and approaches. Indicators can be set at many different levels. There are many different types, the most common of which are quantitative and qualitative indicators. Indicators can be developed and refined in different ways, depending on the context.

Indicators are defined in many different ways by different organisations. Two definitions are provided below, but there are many others:

“A quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor.” (OECD, 2010)

“An observable change or event which provides evidence that something has happened – whether an output delivered, immediate effect occurred or long-term change observed.” (Bakewell, et. al. 2003, p21)

Perhaps the simplest definition is a *“piece of information that provides evidence of a change”*. However, it is important not to confuse *evidence* with *change*. An indicator is something that helps assess change – it is not the desired change itself.

Indicators may be set against a project or programme’s desired changes at output, outcome or impact level. But indicators can also be used to help identify organisational (internal) change, as well as changes in the external environment.

Different types of indicators

There are a number of different types of indicators. One key difference is between quantitative and qualitative indicators.

- *Quantitative* indicators are reported as numbers, such as units, prices, proportions, rates of change and ratios.
- *Qualitative* indicators are reported as words, in statements, paragraphs, case studies and reports.

It is important to remember that it is not the way in which an indicator is *worded* that makes it quantitative or qualitative, but the way in which the indicator is *reported*. If an indicator is reported using a number then it is a quantitative indicator. If it is reported using words then it is qualitative. A popular misconception is that a qualitative indicator always measures the quality of change. This is not true.

Both quantitative and qualitative indicators have strengths and weaknesses, and usually both will be

needed within a project or programme. For example a detailed case study on changes in people’s lives will reveal little unless there is some idea of how many people are involved. Similarly, reports of how many people are affected by a project often need to be supplemented by descriptive information illustrating the changes in individual lives. Some of the key differences between quantitative and qualitative indicators are outlined below.

| | Quantitative | Qualitative |
|--------------------|--|---|
| <i>Expression</i> | Numbers | Words |
| <i>Coverage</i> | Provide information on width and scope of work | Provide in-depth information on changes at strategic points |
| <i>Analysis</i> | Analysed through statistical data methods | Analysed through summarising, reduction and scoring |
| <i>Limitations</i> | Often need to be interpreted through qualitative enquiry | Often apply only to a small number of people or situations, and therefore run the risk of being anecdotal |

In addition to quantitative and qualitative indicators, there are other kinds of indicators which can be useful.

- **Mixed indicators** contain an element of both quantitative and qualitative data. For example, *‘# and description of policies changed regarding child protection’*. These indicators can be used to show both the scale and depth of change. In this example, reporting on the number of policies changed would give the scale of change, but the individual descriptions might show a wide range of different policy changes resulting from different types of interventions.
- **Scoring and ranking** indicators are quantitative indicators. They are sometimes collected directly, but may also be generated from qualitative data. Examples would include rating satisfaction from 1 to 10, or ranking satisfaction according to pre-defined categories such as ‘very satisfied’, ‘satisfied’, and ‘unsatisfied’.

- Simple **yes/no** indicators can be used to define whether something has happened or not. For example, 'a new law is enacted before the end of 2015'.
- In some circumstances, **pictures** can also be used as indicators. Along with words and numbers, pictures can contain information that provides evidence of change. For example, photographs taken before and after a project can show how the physical environment of a village has changed.
- **Proxy** indicators measure change in a given phenomenon or process in an indirect manner. In other words, a proxy indicator does not measure something directly, but through another phenomenon. For example, the distribution or acceptance of condoms is sometimes used as a proxy measure for reduced rates of infection of HIV.
- **Framing** indicators are used when it is difficult to easily predict the changes resulting from a piece of work. They define the *domain* in which change is expected to occur. For example, 'changes in the lifestyles of women following an empowerment project'. They should not usually be used to measure change, but should instead be used to provide *illustrations* of change that may be occurring. Framing indicators at programme level often rely on capturing and summarising more detailed indicators at project level (see separate paper on programme indicators).

Defining indicators

Until recently, many indicators were developed according to the Quantity, Quality, Time and Place protocol. This meant that an indicator would be defined so as to be specific about:

- **Quantity: 300** midwives
- **Quality: 300 midwives trained in traditional birthing techniques**
- **Time: 300 midwives trained in traditional birthing techniques by the end of 2016**
- **Place: 300 midwives in Southern Uganda** trained in traditional birthing techniques by the end of 2016

Although many organisations still define indicators in this way, a new industry standard is emerging, where indicators increasingly appear as neutral statements (e.g. '# of new jobs created', not '50 new jobs created'). These indicators do not contain specific numbers, and should not include words such as 'increase', 'reduction' etc. The intention is to ensure that indicators remain as neutral criteria providing evidence of change, rather than targets to be achieved.

Organisations that use neutral indicators may choose - or be required to - link those indicators up with baseline, milestone and target statements. If indicators are quantitative then the baselines, milestones and targets will include numbers. If they are qualitative then the baselines, milestones and targets will include words. Some simple examples are shown in the table below.

| Indicator | Baseline | Milestone 1 | Milestone 2 | Target |
|---|---|--|--|--|
| % of girls in project areas who report living free from violence over the past year | 10% | 25% | 35% | 50% |
| # of children completing one year of basic primary education | 0 | 600 | 800 | 1,200 |
| Capacity of supported partner to develop own project proposals | Partner has no ability to develop independent project proposals | Partner can develop proposals with assistance from supporting agency | Partner is capable of developing independent project proposals | At least two project proposals are favourably received by donor agencies |
| Policy on use of common grazing land exists | No policy supports the use of common grazing land by project beneficiaries. | Local government officials agree to look into the issue, and attend meetings | A new proposed policy is outlined and sent out for consultation. | Policy on use of common grazing land is adopted by local government. |

Whether neutral or not, a good indicator is still expected to be specific about time and place. It should be clear about which target groups are involved, and in which location, as well as the expected timescales for change.

The relationship between indicators and tools

Some indicators can be collected using many different methods of data collection and analysis. However, some indicators only have meaning when they are linked to the specific tools or methods used to collect

them. For example, if a survey is designed to ask a question such as *'would you rate your engagement with a school as high, medium or low?'* then an indicator might be *'# and % of respondents that say they have a high engagement with the local school'*. Without having first developed the survey the indicator would be meaningless.

This is especially true for ranking and rating indicators. For example if an organisational assessment tool is being used to enable organisations to rank themselves according to how effective they are at mobilising local opinion it may be valid to set an indicator such as *'# of organisations that increased their ranking by at least 1 level across at least 3 defined areas'*. But until the tool has been developed it is impossible to set the appropriate indicators.

This sometimes means the order in which indicators and tools are developed needs to be reversed. In some cases it makes sense to develop an indicator first, and then assess which tools could most usefully be used to collect the indicator. In other cases it makes sense to identify the tools of information collection and analysis first before finalising the indicators.

Disaggregation

Indicators, especially quantitative ones, should always be disaggregated where relevant. This means ensuring that information can be separated out to show differences in change between target groups. Common criteria for disaggregation include gender, disability, marginalised groups, and people living with HIV&AIDS.

Where indicators are designed to be disaggregated then associated information such as baselines, milestones and targets also needs to be disaggregated, as in the example below.

| Indicator | Baseline | Target |
|--|----------------------------------|----------------------------------|
| % of targeted children suffering from diarrhoea in the past 2 weeks in programme villages, disaggregated by gender | 40% (35% boys) (45% girls) | 30% (30% boys) (30% girls) |

Selecting and refining indicators

There are many different ways in which indicators can be developed or selected.

- Indicators might be developed by project or programme staff on their own.
- Indicators may be selected by brainstorming with a wider group of different stakeholders.
- Many organisations facilitate the involvement of beneficiaries in selecting indicators at some stage in the process. The involvement of beneficiaries in

this way is often a key aspect of participatory monitoring and evaluation.

- Some organisations have checklists or menus of common indicators to select from.
- Some organisations require standard indicators to be set for specific programmes or sector areas (especially if they wish to aggregate information).
- Some donors require specific indicators to be used by recipient organisations.
- In some areas of work, such as health or water and sanitation, there may be industry-specific indicators.
- There are sometimes specific guidelines for setting indicators (e.g. SPHERE indicators for programmes involved in emergency situations).

In general terms, the more stakeholders that are involved in the process the greater the ownership of the indicators. However, the downside is that the process of identifying, selecting and refining indicators often takes much longer.

Frequently, whatever process is used leads to a large number of potential indicators – often far too many to use effectively. Once a range of possible indicators has been developed it is useful to ask a few questions in order to establish whether they are realistic or not. Sometimes the answers to these questions might lead to the discarding of potential indicators. This helps to narrow options, and ensure that any remaining indicators are realistic. Some suggestions for questions are contained in the box below.

| Questions to ask when refining indicators |
|--|
| <ul style="list-style-type: none"> Will you be able to collect information on your indicator? If so, where will you get the information from? Is it likely to be accurate (credible)? How much will it cost to get the information in terms of staff time, beneficiary time and money? How often will you have to collect it? Does it require baseline information? If so, can you get this information? Do your staff have the capacity (or desire) to collect the information honestly and accurately? How far can you attribute the indicator to your efforts? Will the indicator tell you anything you did not know before? Will it help you make decisions to improve future performance? Will it help you to be accountable to different stakeholders? How else will it help you (if at all)? |

Once the indicators have been selected the final step is to operationalise them by defining the indicators clearly, and stating who will collect them, when, how often and which tools or methodologies will be used. This is explained further in the separate paper on M&E plans.

“An objective that cannot be measured may still have value as a guiding or inspiring objective. An indicator that cannot be collected is a worthless parasite.”

It is also important to note that indicators may emerge over the course of a project or programme, and other indicators may need to be removed or adjusted. This might be because the indicators prove too difficult or expensive to use, or because of changes in the external socio-economic environment, or because they simply don't work as planned. A good M&E system or approach will allow for the addition, removal or adjustment of indicators from time to time as a matter of course.

Further reading and resources

Chapter 5 of the INTRAC book *Sharpening the Development Process: A practical guide to monitoring and evaluation* (see reference below) is dedicated to indicators. Other papers in this series deal with setting objectives and outputs, outcomes and impact. There are also papers on linking indicators between different levels of an organisation and developing M&E plans.

The Bond “Impact Builder” is an online hub of outcomes, indicators and data collection tools designed to help organisations monitor and evaluate their projects and programmes. It has been developed by more than 100 UK NGOs, brought together by Bond, and is available at <http://my.bond.org.uk/impact-builder>.

References

- Bakewell, O; Adams, J and Pratt, B (2003), *Sharpening the Development Process; A practical guide to monitoring and evaluation*. INTRAC, UK.
- OECD (2010). *Glossary of Key Terms in Evaluations and Results Based Management*. OECD, 2002, re-printed in 2010.

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INTRAC is a specialist capacity building institution for organisations involved in international relief and development. Since 1992, INTRAC has contributed significantly to the body of knowledge on monitoring and evaluation. Our approach to M&E is practical and founded on core principles. We encourage appropriate M&E, based on understanding what works in different contexts, and we work with people to develop their own M&E approaches and tools, based on their needs.

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