

DATA COLLECTION



Almost all monitoring and evaluation work involves data collection. There are many ways of collecting data. Data can be collected through basic tools, such as interviews, observation and surveys. This data can be analysed in a variety of different ways. More complex approaches combine different processes of data selection, collection and analysis within a defined tool or methodology.

Almost all monitoring and evaluation (M&E) work involves data collection. Data can be collected through many different mechanisms. Within M&E, there is little consistency in the terminology used to describe these mechanisms. Common terms include tools, templates, methods, processes, approaches, techniques, frameworks and methodologies. However, these terms are not very well defined. Within the M&E Universe, for the sake of simplicity, the following terminology is used.

- A **tool** is a simple method for collecting data. Tools include interviews, focus group discussions, observation, photography, surveys and questionnaires. Tools may be used in many different circumstances, and the information they generate can be analysed and used in many ways. Tools may also be called methods or processes.
- A **template** is an electronic or manual form used to record data. It usually consists of standard questions or headings with space to record answers or measurements.
- A **methodology** is a set of tools and processes that combine to form a consistent approach to data selection, collection, analysis and use. Examples of methodologies used in M&E include Randomised Control Trials (RCTs), Outcome Mapping (OM), Most Significant Change (MSC) and process tracing. Most methodologies incorporate the use of multiple tools and templates. Methodologies may also be called techniques, approaches or frameworks.

Using tools and methodologies in M&E

When INTRAC runs an M&E training event it always asks participants to state their expectations at the start. In many cases, participants hope to leave with new M&E tools or methodologies, which they believe will immediately improve their M&E capacity. They often leave disappointed. This is for a number of reasons. Firstly, there are no tools or methodologies that are appropriate in all circumstances. Secondly, most tools and methodologies need to be adapted to the context, and cannot be used 'off the shelf'. Thirdly, the value of any tool or methodology is almost always dependent on how well it is used and applied.

Indeed, part of the skill of an M&E practitioner (or adviser) is to identify which tools and methodologies are appropriate under which circumstances, and then to adapt them as required to fit the situation. The aim of this section of the M&E Universe is to provide some background and information on the many different tools and methodologies available, to help M&E practitioners make these choices.

Selecting tools and methodologies

Many different factors influence decisions over which tool or methodology to select for an M&E task. Some of these are described below (see Bakewell, et. al., 2003).

- **The nature of the project or programme:** Each project or programme is different, each with its own budget, goals, objectives and ways of working. A large project or programme involving thousands of beneficiaries, spread across wide geographical areas, does not require the same tools or methodologies as a project based in one small community.
- **The stage of the project or programme cycle:** Some tools or methodologies, such as Outcome Mapping, are designed for use during design and planning stages. Others, such as MSC, can only be used after enough time has elapsed to see change.
- **The key questions that need answering:** Some tools and methodologies are designed to identify the changes that have happened; others are better at explaining how and why change has occurred. For example, an RCT may show the level of change resulting from a project or programme, but information generated through qualitative tools such as interviews or focus-group discussions (FGDs) may help explain how or why that change happened.
- **The sector and type of work carried out:** In some sectors of work, such as health, education and agriculture, it is common to use industry-standard tools or methodologies. For example, industry-standard tools can be used to measure the results of medical interventions, such as eye operations or nutrition programmes. Other tools and methodologies are designed to be used when carrying out specific types of work. For example, organisational capacity assessment tools (OCATs) are frequently used to monitor capacity development work.

- **Whether quantitative or qualitative analysis is needed:** Some tools and methodologies, such as surveys, are more appropriate for generating statistical data and findings. Others, such as FGDs, are better at generating in-depth qualitative information.
- **The degree of desired stakeholder participation:** Different tools and methodologies may be selected depending on how important it is to engage people in participatory M&E. Some tools and methodologies, such as Participatory Learning and Action (PLA), are designed to be used in a participatory way with stakeholders. Others, such as RCTs, need to be applied according to rigidly defined standards, and provide less flexibility for participation.
- **The time and resources available:** Some tools, such as interviews or photography, can be used very quickly and with few resources. Others, such as large-scale surveys, may require significant time and expense.
- **The available expertise:** Many tools can be applied by people with little or no M&E knowledge or training. On the other hand, complex methodologies such as RCTs or Qualitative Comparative Analysis (QCA) may require significant expertise. Complex methodologies may be impractical for some CSOs if the skills and expertise required to design and implement them is not readily available.
- **A focus on pre-defined indicators:** Some tools and methodologies require accurate predictions of change to be effective. Others are more capable of handling unexpected or negative changes. For example, a quasi-experimental approach normally requires a baseline to be established, covering pre-defined indicators of change. On the other hand, the methodology known as outcome harvesting can help capture change whether or not it was predicted.

As can be seen from the wide range of different influences listed above, selecting appropriate M&E tools and methodologies for a development intervention is not always easy. In some cases a combination of different tools or methodologies may be needed in order to meet multiple requirements. This is why a one-size-fits-all tool or methodology for data collection and/or analysis is often not a realistic proposition.

That said, many CSOs throughout the world never use complex methodologies for data collection and analysis, and rely mainly on simple tools such as interviews, FGDs and photographs, perhaps supplemented by a few case studies or stories of change. As stated earlier, the primary task of an M&E practitioner (or adviser) is often to help decide which combination of tools / methodologies is

appropriate, and under which circumstances. The next task is then to adapt the selected tools or methodologies to the particular context.

Tools and methodologies covered in the M&E Universe

The M&E Universe contains papers on many tools and methodologies that can be used for data collection. These have been divided into two groups.

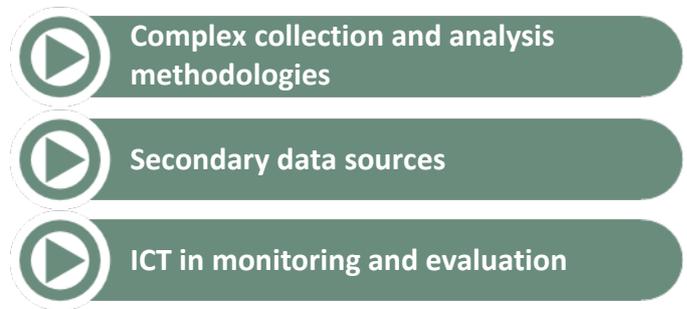
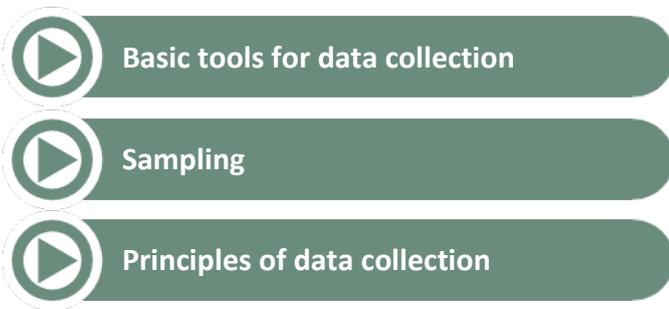
- The first group contains a set of basic tools. These can be used on their own or in combination. They generate data which can be analysed in many different ways. They can be implemented as stand-alone tools or as part of wider methodologies. The tools include interviews, FGDs, observation, photography, video, surveys, questionnaires, case studies and stories of change.
- The second group contains more complex methodologies for data collection and analysis. These include RCTs, quasi-experimental approaches, QCA, MSC, process tracing, contribution analysis, Outcome Mapping, outcome harvesting, organisational assessment tools, social network analysis, appreciative inquiry and tracer studies.

Of course there are many more tools and methodologies than are covered in the M&E Universe. However, most, if not all, are either adaptations of existing methodologies or variants on a theme. Once an M&E practitioner has understood the principles on which the tools and methodologies covered in the M&E Universe are based, he/she should find it much easier to adapt existing ones or design new ones to meet different circumstances.

“Every decade seems to produce some kind of tool, approach or methodology that is considered ‘universally applicable’ - the logframe, Participatory Rural Appraisal, Results Based Management and now Randomised Control Trials. We have yet to find such a tool or approach and we probably never will.”

Further reading and resources

The M&E Universe contains two papers that cover basic tools of data collection and complex methodologies for data collection and analysis respectively. These papers contain links to further papers covering each individual tool and methodology separately. Four other papers in the M&E Universe deal with related topics: sampling; the use of secondary data sources; the principles of data collection; and the use of ICT in M&E. These can be accessed by clicking on the links below.



References

- Bakewell, O; Adams, J and Pratt, B (2003). *Sharpening the Development Process; A practical guide to monitoring and evaluation*. INTRAC, UK.

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INTRAC is a not-for-profit organisation that builds the skills and knowledge of civil society organisations to be more effective in addressing poverty and inequality. Since 1992 INTRAC has provided specialist support in monitoring and evaluation, working with people to develop their own M&E approaches and tools, based on their needs. We encourage appropriate and practical M&E, based on understanding what works in different contexts.

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