This resource guide is one of a series of four developed to support researchers in international development with key monitoring, evaluation and learning processes, such as Theory of Change and logframes for proposal and project design.

Making the most of your logical framework and indicators

This resource guide will provide an introduction to:

- the principles of a logframe
- the structure and logic of a logframe
- suggestions for developing indicators, means of verification, assumptions and risks

Introduction to logical framework

'Logical framework' (or 'logframe') are used to support project or programme planning, and a monitoring tool for projects and programmes. Logframe matrices are often developed during project/programme design to outline a series of indicators and targets to inform periodic reporting.

Logframes should ideally be revisited at key reflection points in the project cycle to ensure that indicators are still relevant to project activities and objectives. They are also an essential resource for evaluation after the project/programme has ended. Donors typically require logframes to be defined as part of their contract with implementing organisations. As a methodology, the logical framework approach is a systematic approach to designing, executing and assessing projects. It encourages users to consider the relationships between available resources, planned activities and outputs, and the desired changes or results.

At its core is a theory of change (see Resource Guides 1&2), which identifies the causal pathways that represent the logic of how a project/programme's activities and outputs will deliver the intended results.

The logframe establishes a hierarchy of objective or result statements – from impact to outcome to output – which represent a linear vision of how change will be achieved. A logframe translates this approach into action, and forms the basis of an actionable work plan to guide implementation throughout the project/programme life cycle.

Logframes also establish how outputs and outcomes might best be monitored and evaluated, presenting a summary of the activity in a standard format, and suggesting monitoring activities to generate evidence of how results have been achieved during implementation.

The logic of a logframe: if–then causality

Figure 1 shows the logical relationships between the planned activities and the resulting outputs, outcomes and eventual impact. It provides a plausible model of how a programme is supposed to work.
Essentially, if the activities are conducted, then the outputs should be delivered; if the outputs are delivered, then the outcomes should be accomplished; and if the outcomes are accomplished, they should contribute to the overall goal or impact of the programme.

**Figure 1 - Logical flow**

Table 1 contains some examples of the different types of inputs, activities, outputs and outcomes that one might expect to find in a logframe.

**Table 1 - Examples of types of activities, outputs, outcomes, impacts. Source: author’s own**

<table>
<thead>
<tr>
<th>Resources and inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes Short-term (1-3 years)</th>
<th>Outcomes Medium-term (4-6 years)</th>
<th>Impact (7-10 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff time</td>
<td>Convening workshops and meetings</td>
<td>Training materials / curriculum developed</td>
<td>Awareness Knowledge and skills</td>
<td>Behaviour change</td>
<td>Social</td>
</tr>
<tr>
<td>Project funds</td>
<td>Service delivery</td>
<td>Workshops facilitated / people trained</td>
<td>Attitudes and motivation</td>
<td>New norms and practices</td>
<td>Economic</td>
</tr>
<tr>
<td>Equipment and technology</td>
<td>Training</td>
<td>Services or support delivered</td>
<td>Improved services</td>
<td>Revised policies</td>
<td>Civil</td>
</tr>
<tr>
<td>Partners</td>
<td>Advocacy and influencing</td>
<td>Policy proposals developed</td>
<td>Stronger accountability</td>
<td>Improved services</td>
<td>Environmental</td>
</tr>
</tbody>
</table>

**Logical framework structure** A logframe consists of a matrix with five columns: objectives, indicators, milestones, means of verification, and risks/assumptions. The rows are usually ordered as a hierarchy, starting with impacts, then outcomes, and outputs. Some also include activities although this may not be necessary as this would replicate information in the project work plan.
### Table 2 - Structure of a logframe (including examples)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measurable indicators</th>
<th>Milestones</th>
<th>Means of verification</th>
<th>Assumptions and risks</th>
</tr>
</thead>
</table>
| **Impact or goal (the overarching change)** | Examples of programme contribution towards improved empowerment and accountability outcomes in focus countries | Yr 1: n/a  
Yr 2: n/a  
Yr 3: One impact case study | Key stakeholder interviews |  |
| **Outcomes (results the intervention trying to achieve to fulfil the impact)** | Number of key stakeholders (eg. CSOs, donors, policymakers and academics) providing examples of how their increased understanding on social and political actions has influenced their work and priorities | Yr 1: n/a  
Yr 2: 4 stakeholders provide an example  
Yr 3: 4 stakeholders have an increased understanding | Key stakeholder interviews; post-event feedback; surveys | Stakeholders can be influenced by new evidence, and capacity to understand the evidence |
| **Outputs (observable, measurable changes and tangible products or services to deliver)** | Number of high quality academic outputs (e.g. peer reviewed journal articles, working papers, and book chapters) published or accepted for publication | Yr 1: 5 academic outputs  
Yr 2: 20 academic outputs  
Yr 3: 25 academic outputs | Programme publication catalogue | Evidence provides new insights and clarity on how social and political actions contributes to empowerment and accountability |
| **Activities (Tasks that need to be completed in order for the outputs to be achieved)** | Commissioning and drafting journal articles, working papers, book chapters and other publications; presenting and sharing findings with key stakeholders at relevant conferences and events; conducting webinars | | |  |
Table 2 shows what information is required in each column:

- **Objective**: This is a broad statement of the type of change that the project or programme wishes to see in each area. At the impact level, there is usually one key objective, but this could be linked to one or two impact indicators. At the outcome level, there should be no more than three objectives, although each one may also be linked to one or two indicators. At the output level, the emphasis should be on useful indicators to demonstrate progress and inform project management decisions.

- **Measurable indicators**: These are quantitative or qualitative measurements that provide a reliable way to measure changes brought about by an intervention – in essence, 'a description of the project’s objectives in terms of quantity, quality, target group(s), time and place'.

- **Milestones**: These are targets for how much progress is expected against each indicator and by when. Milestones are usually set annually; they can present either an annual or a cumulative target, which should be specified depending on what makes most sense in the project or programme context. Milestones are typically quantitative, and this can influence the decision over whether to use qualitative or quantitative indicators (as discussed below).

- **Means of verification**: This means the information sources necessary for data compilation that would generate the evidence of progress against indicators.

- **Assumptions and risks**: The external factors or conditions outside of the project or programme’s direct control that are necessary to ensure success. Also the assumptions about how changes at each level in the logframe lead to changes in the next level.

The next section provides some advice for developing indicators, defining means of verification, and articulating assumptions.

**Defining measurable indicators**

Indicators specify how a project will measure achievement of its objectives, including impact, outcomes and outputs. They also provide the basis for monitoring the progress of activities.

Indicators are established in response to the question:

'How do we know whether or not what has been planned is actually happening or has happened?'

For example: how do we know if more policy makers and practitioners are accessing new evidence? What would tell us that new evidence is informing their decision making? How do we measure progress towards the objective of strengthening participation in decision making processes? How do we know if these benefits are likely to be sustainable?

Effective indicators should be SMART (Specific, Measurable, Achievable, Relevant, Time bound):

- **Specific**: Indicators should be specific and relate to the outcome/output conditions the activity seeks to change or create. Indicators should focus on the 'who' and 'what' of the intervention. It is also important to look at 'how' and 'where' the 'who' is doing the 'what', as it provides the action for the intervention.

- **Measurable**: Indicators should be able to be counted, observed, analysed, tested, or challenged.

- **Achievable**: Indicators are achievable if the performance target or milestone accurately specifies the amount or level of what is to be measured in order to meet the outcome/output objective.
Indicators should be achievable both as a result of the programme and as a measure of realism. The targets attached to indicators should also be achievable.

- **Relevant**: Indicators must be relevant. They must be a valid measure of the outcome/output and be linked through research and professional expertise. There is no reason to create an indicator that does not relate to the larger outcome. Indicators should be meaningful and important to the outcome to certify that the results are actually showing a related impact.

- **Time bound**: Indicators should specify a time frame and be linked to milestones, which provide targets of what a project hopes to achieve and when.

### Quantitative vs qualitative indicators

Indicators can be quantitative or qualitative depending on what they intend to measure. Quantitative indicators measure a quantity, such as a pure number, an index, ratio or percentage. They are widely used in development programmes as they provide a clear measure of a phenomenon and are numerically comparable, which enables programme implementers to compare performance or results over time, or between two or more programmes. Quantitative indicators can provide precise numerical data that are credible and reliable for stakeholders; they provide data analysis that is often more objective than qualitative indicators, which are more open to interpretation.

<table>
<thead>
<tr>
<th>Quantitative indicators</th>
<th>Qualitative indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective facts that can be easily counted</td>
<td>More subjective</td>
</tr>
<tr>
<td>Numerical - assumes easy to aggregate/disaggregate</td>
<td>Tries to measure quality, opinions, perceptions, systems development, influencing - so harder to aggregate</td>
</tr>
<tr>
<td>Measures the scale of an intervention</td>
<td>Often try to quantify the qualitative</td>
</tr>
<tr>
<td>E.g. percentage of population who voted</td>
<td>E.g. progress of legislation</td>
</tr>
<tr>
<td>E.g. number of people with access to justice system</td>
<td>E.g. reported public perception of municipal services</td>
</tr>
<tr>
<td>Strengths: precise numerical data are perceived to be more reliable and objective</td>
<td>Strengths: understanding of process and context</td>
</tr>
<tr>
<td>Weaknesses: numerical data does not explain causality or context</td>
<td>Rich and deep analysis of change</td>
</tr>
<tr>
<td>Weaknesses: possible bias during analysis</td>
<td>Findings can be subjective and interpreted differently</td>
</tr>
</tbody>
</table>
Other kinds of indicators

Proxy indicators

Proxy indicators measure change indirectly, through another phenomenon. For example, the distribution or acceptance of condoms is sometimes used as a proxy measure for reduced rates of HIV infection. Proxy indicators are used when data collection for specific measures is not feasible.

Example of proxy indicators for social capital:
- Number of connections created
- Number of collaborative activities

Example of proxy indicators for women’s empowerment:
- Number of women participating in local government meetings
- Number of women in leadership roles in project partner organisations

Mixed indicators

Mixed indicators contain an element of both quantitative and qualitative data. For example, ‘number 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 demonstrate the scale of change, but the individual descriptions might show a wide range of different policy changes resulting from different types of interventions. This provides greater insight than would purely quantitative or qualitative indicators alone.

Some useful resources for inspiration on indicators

Disaggregation of indicators

Indicators, especially quantitative ones, should be disaggregated where possible. This means ensuring that information can be separated out to show how change affects different target groups. Common criteria for disaggregation include gender, disability, and marginalised groups. Where indicators are designed to be disaggregated, associated information such as baselines, milestones and targets also needs to be disaggregated (see Table 4).

### Table 4 - Example of disaggregated indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of targeted children suffering from diarrhoea in the past 2 weeks in programme villages, disaggregated by gender</td>
<td>40% (35% boys) (45% girls)</td>
<td>30% (30% boys) (30% girls)</td>
</tr>
</tbody>
</table>
Means of verification

When a programme has set objectives and corresponding indicators, it is important to define what information will be required and the sources of that data at the outset. This allows the data to be collected and disaggregated as the programme is being implemented.

When determining means of verification, it is important to:

- make use of existing information wherever possible; new or additional research can be costly and time-consuming
- keep your information requirements simple and relevant; extensive data collection can also be costly and time-consuming, and the data are less likely to be used if there is too much to manage
- when determining what information to collect, consider how it will be collected, who will collect it, how it will be analysed, and what resources will be required to process it. Consider also how the information will be presented and used. These considerations will help to minimise the collection of excessive or unnecessary data.

Common examples of means of verification include:

- data systems – tracking outputs, events and attendance, media mentions, web and social media analytics, citation analysis
- surveys and feedback forms
- interviews
- quotes and testimonies.

Assumptions and risks

Any programme activity, output or outcome is subject to influence by factors that are difficult to predict and over which the programme has no direct control. In a logframe, the focus is usually on assumptions about the external conditions that need to hold for the project logic to hold true. Some logframes describe these contextual assumptions as ‘risks’.

The primary distinction is that risks are negative statements about what might go wrong, whereas assumptions are positive statements about the conditions that need to be met if the activity is to stay on track.

Whether one uses the term ‘assumptions’ or ‘risks’, the purpose is the same – namely, to assess and mitigate external impacts on the activity and, where possible, make programme design more robust.

Developing a theory of change will also help to articulate the assumptions of the causal relationships between activities, outputs, outcomes and impacts. Resource guide 2 provides more information on identifying assumptions and how they influence the achievement of objectives from one level to the next.
Understanding and assessing the nature of these assumptions is an essential part of effective project/programme design and a key area in which a logframe and theory of change complement each other. Awareness of the assumptions that are implicit in project design demonstrates that the project team is aware of the context they are working in and the potential challenges that may emerge. However, reporting against risks is more commonly included in a project risk register. Reflecting on assumptions should be integrated into the project learning approach, which is discussed in more detail in resource guide 4.