From Theory of Change to Database Design for evidence-based decision making: Indicators
Presented by the ActivityInfo Team

Software for Monitoring & Evaluation

● Track activities, outcomes
● Beneficiary management
● Surveys
● Work offline/online
Webinar series structure

26/1
Theory of Change

2/02
Results Framework and logFrame

9/02
Indicators

16/02
Measurement Methods

23/02
How to develop a MEAL plan
Today’s session outline

- Recap: the Logical Framework elements
  - How does the logical Framework associate to the Monitoring and evaluation?
- What is an Indicator?
  - Understand why do we use the Indicators
  - Understand the Indicator definition
  - Understand Indicator elements
  - Understand the characteristics of a good Indicator
- How do we develop Indicators?
  - Steps to develop Indicators
  - Best practices and tips
- QandAs
Logical Framework
The logic models

Theory of change
- long term change
- pathways of change
- Underlying assumptions and supporting evidence

Results Framework
- project hierarchy
- causal logic of the model

Logical Framework
- High level indicators
- means of verification
- assumptions that need to be in place so that causal logic works

MEAL DPro Guide
https://www.pm4ngos.org/meal-dpro-guide/
Logical Framework is a logic model that describes the key features of the project (objectives, indicators, measurement methods and assumptions) and highlights the logical linkages between them.

Why do we need it?
- It brings us a step closer to MEAL plan and supports actively the indicators development
- It supports Project teams to develop a common understanding that enables the use of MEAL system

MEAL DPro Guide
https://www.pm4ngos.org/meal-dpro-guide/
**Logical Framework**

**Reminder: What do M, E, A and L mean?**

**Monitoring:** The continual and systematic collection of data to provide information about project progress.

**Evaluation:** The user-focused, systematic assessment of the design, implementation and results of an ongoing or completed project.

- Different frequency, purpose, timing, data use

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### Figure 3: Comparing the purpose and process of monitoring and evaluation

<table>
<thead>
<tr>
<th></th>
<th>Monitoring</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Tracking inputs, activities and progress toward achievement of agreed outcomes and impacts</td>
<td>A systematic and objective assessment of the merit, value or worth of an ongoing or completed project</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Regular and ongoing during project implementation</td>
<td>Periodic, once-off events during and, if funding permits, after project implementation</td>
</tr>
<tr>
<td><strong>Responsibility</strong></td>
<td>Activities are conducted by members of the project team</td>
<td>Activities are often externally led, although they should involve the active participation of project staff</td>
</tr>
<tr>
<td><strong>Use of data</strong></td>
<td>Informs timely decision-making and short-term corrective action in support of adaptive management</td>
<td>Identifies potential course corrections. Contributes to longer-term organizational learning</td>
</tr>
</tbody>
</table>

[MEAL DPro Guide](https://www.pm4ngos.org/meal-dpro-guide/)
Logical Framework

Reminder: What do M, E, A and L mean?

**Accountability:** A commitment to balance and respond to the needs of all stakeholders in the activities of the project.

**Learning:** Having a culture and processes in place that enable intentional reflection. The aim of learning is to make smarter decisions.
Logical Framework

How is Logical Framework associated with M,E,A,L?

Figure 7.1: The Proframe Matrix

<table>
<thead>
<tr>
<th>Objective statements</th>
<th>Performance indicator statements</th>
<th>Measurement methods/Data sources</th>
<th>Critical assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td></td>
<td></td>
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<tr>
<td>Strategic objectives</td>
<td></td>
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<tr>
<td>Intermediate results</td>
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<td></td>
<td></td>
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<tr>
<td>Outputs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Indicators
Indicators

When do we start the development?

Strategic planning
Proposal development and logic models development

Development of Theory of Change, Results Framework and Logical Framework

Day 0 of implementation
Plan MEAL system

Later during implementation
MEAL system design and launch

MEAL system implement and use

Before implementation
Indicators

Why indicators are Important?

Why do we need indicators?
- Ensure evidence-based decision making
- Support project’s capacity to continuously adapt
- Support learning
- Support accountability to key stakeholders

It is necessary to:
- Measure the indicator
- Identify target: specific results to be achieved within a timeframe
- Identify a starting point (Baseline): value of performance indicator before the project starts

Practical Guidance on Developing Indicators
Indicators

Definition

- Are quantitative or qualitative factors or variables
- Provide simple and reliable means to measure achievement
- Reflect the changes connected to an intervention.
- Help assess the performance.

Measure progress through the project’s pathways of change and enable testing of a project’s Theory of Change (TOC).

Practical Guidance on Developing Indicators
Indicators

Indicator elements

Quantitative

- Produce numerical values as they measure amount or quantity.
  - Aspects:
    - **Unit of measure**, which could be a number, percent, ratio or rate.
    - **Subject of measure** e.g. households, project participants, etc.
    - **Description of what is being measured** e.g. completing the training, etc.
    - **Disaggregation requirements**, such as gender, age, etc.

  e.g. % of refugees employed in Homeland

Qualitative

- Generate narrative information (i.e. text/words)
- Intend to explore and describe judgments, opinions, perceptions and attitudes toward a given situation or subject

  e.g. challenges of refugees accessing the local labor market
Indicators

What is the difference between qualitative and qualitative?

**Important considerations:**

- **Quantitative indicators** help us understand how much of something is happening while we know or hypothesize from TOC what that something is.
- **Qualitative indicators** help us investigate the “why” and the “how” - for those instances that we are not sure what to expect.
- Few donors require qualitative indicators.
- **Qualitative indicators** are critical to inform adaptive management actions, but this is not a separate indicator: it is additional (qualitative) data that helps to add richness to the analysis and interpretation of quantitative indicator results.

E.g. % of refugees reporting increase sense of belonging.

[Practical Guidance on Developing Indicators](https://www.crs.org/our-work-overseas/research-publications/practical-guidance-developing-indicators)
## Indicators

### Characteristics of a good quantitative indicator: SMART

<table>
<thead>
<tr>
<th>SMART Checklist</th>
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</thead>
</table>
| **Specific** | Is the indicator sufficiently defined so it is clear what is being measured?  
| | Would two or more project staff members understand it in the same way?  
| | • Are qualitative and/or ambiguous terms defined?  
| | • Is the measurement unit specified (including disaggregation categories as appropriate)?  
| | • For percentages, are the numerator and denominator defined?  
| **Measurable** | Can data be collected and analyzed in a timely manner?  
| | • Can the indicator be observed, counted, self-reported or otherwise measured?  
| | • Is the data collection and analysis effort (the expertise, time and staff required to collect & analyze the indicator data) commensurate to the needs of the project?  
| **Achievable (or Attainable)** | Is the nature of the change measured through the indicator achievable, given the duration and resources of the project?  
| | If the indicator collects data that is prone to seasonal changes, can you collect it at the same time of year over life of the project to demonstrate the change?  
| | Have the targets been specified? Are the targets attainable given the duration and resources of the project?  
| **Relevant** | Is selected indicator the most appropriate measure of progress toward output, IR and/or SO?  
| | • Will the data help us know whether output, IR and/or SO has been achieved?  
| | • Will selected indicator be useful for project management?  
| | • Will selected indicator help with testing pathways of change/TOC and inform project learning?  
| **Time-bound** | Does the indicator include information on when the target change is anticipated to take place? (i.e. in accordance with the project activities’ schedule and Theory of Change)?  
| | • Are targets set on relevant timeframes? Is it clearly specified when the target should be achieved?  
| | • Is the frequency with which indicator is collected appropriate? Are start and end of data collection specified?  

[Practical Guidance on Developing Indicators](https://www.crs.org/our-work-overseas/research-publications/practical-guidance-developing-indicators)
Indicators

Characteristics of a good quantitative indicator: SMART

Specific
Measurable
Attainable
Relevant
Time-bound

➢ Writing indicators in a SMART way enables us to:
  ➢ Have quantity and quality dimensions in the indicator
  ➢ Ensure that they are measurable

➢ While SMART defines the characteristics, some elements of the indicator represent an opportunity to ensure components of SMART are included even in the wording of the indicator.

➢ Whenever feasible, include specificity in the indicator wording, but if the indicator wording is too complex provide a separate explanation of the definitions in the MEAL plan.

➢ The measurability, attainability and relevance dimensions of SMART are often not as obvious from wording of the indicator.

Practical Guidance on Developing Indicators
Country: Homeland

Context: Homeland received suddenly an influx of refugees from a neighbouring country. There were thousands of refugees crossing the borders each day for the first two years. Currently, we are on the third year of this humanitarian crisis. The priorities have changed. Incoming refugees wish to build in their future in Homeland and NGOs in collaboration with the Government need to identify the pathways that lead to integration and through appropriate interventions to facilitate this pathway.

What: We are working as part of the MEAL team for the following month, we will support the MEAL system design to facilitate the programming teams operating on the ground.

Timing: The programming team is currently developing the proposal.
Let’s remind ourselves the previous webinar example

Results framework

Goal: Refugees increased economic resilience

SO: Refugees will engage to legal livelihood opportunities

IR1: Vulnerable refugees are enabled to meet their urgent needs
   ● Output 1.1: Refugees have access to medical referrals

IR2: Refugees have increased skills and knowledge that correspond to the Homeland labor market
   ● Output 2.1: Refugees participate in vocational trainings
Indicators

Let’s remind ourselves the previous webinar example

SO: Refugees will engage to legal livelihood opportunities
  ● % of refugees employed in long term-job opportunities (target: 90% - at the end of project)

Specific: what do we mean long-term?
Measurable: can we measure this? How can we collect this information?
Attainable: can we achieve this? is this realistic?
Relevant: does it help to measure progress?
Time-bound: does frequency correspond to activities?
Let’s remind ourselves the previous webinar example

**Indicators**

- **Specific**
- **Measurable**
- **Attainable**
- **Relevant**
- **Time-bound**

**IR2:** Refugees have increased skills and knowledge that correspond to the Homeland labor market

Focusing on increased skills:
- % of refugees who report high or very high level of confidence (4 or 5 on a 5-point scale) in using the vocational specific skill: Likert scale 1-5.
- % of refugees who agree or strongly agree with the statement “vocational trainings enabled me to acquire a skill that I can use in my work”: Likert scale 1-5.
- % of refugees with increased skills; “increased skills” defined as rating 3 or 4 (on a scale 1-4) to the question: “how do you assess your skill in X to now as compared to before the training” with response options: (a) it has not changed (2) it changed a bit (3) it increased to some extent, (4) it increased significantly: requiring two data collection points (before/after).
How to develop the Indicators
How to develop the Indicators

Who, When and How

**Who?** Developing indicators is a joint effort between programming and MEAL team members to ensure selected indicators are useful from programming perspective, and at the same time are technically sound from MEAL perspective.

**When?** It is recommended to start thinking about indicators as early as possible in the project design process.

**How?** Developing indicators is an iterative process. Some steps presented may need to be revisited as the team gets more information and their thinking evolves.
How to develop the Indicators

Steps for the development of Indicators

1. Initial reflection on indicators using draft of TOC
2. Associating indicators with types of change Objective Statements in Proframe
3. Prioritize with use-oriented mind
4. Refine
Best Practices: Step one

Review proposed pathways of change and draft of TOC and discuss the following:

- How will we know we are successful in progressing through pathways of change/TOC? How will success look like? Are we expecting changes in a situation, a condition, a level of knowledge, an attitude, or a behavior?
- Which parts of the TOC are we least certain about? Where do we have “leaps of faith”?

- Discussing indicators early is likely to result in more meaningful indicators that are not just restatements of the objective statements
- This discussion should help teams refine the overall project’s TOC and the objectives statements

[Practical Guidance on Developing Indicators](https://www.crs.org/our-work-overseas/research-publications/practical-guidance-developing-indicators)
How to develop the Indicators

Best Practices: Step two

**Match** the draft indicators with the project’s draft objective statements. Review donor-mandated indicators and other standard sector indicators and check for potential alignment with the type of change identified at each level of the Proframe.

- This step is necessary since each proposal submission requires presenting the indicators as they relate to these different levels of change.
- The objective statements capture changes at different levels and the TOC describes the if-then progression of the hypothesis of change through these levels. The indicator statements should similarly reflect these different levels of change.
- If you don’t yet have a draft TOC, use the project’s preliminary RF or LogFrame.
- The assessment results are tremendously useful to develop indicators!

- **Strategic Objective level** reveal the central reason for the project. Indicators at this level should help us understand an end-of-project change – both how much (quantity) and what kind (quality) of change we expect to happen as a result of successful project implementation.

- **Output-level** indicators typically reflect what these stakeholders need (knowledge, inputs, access to resources or services, etc.) to change what they do. **Output- and IR-level** indicators need to be reasonably ‘easy’ to measure in order to provide timely information for project management.

Practical Guidance on Developing Indicators

How to develop the Indicators

Best Practices: Step three

- Are all indicator useful for program decisions? When you will use them and how?
- How data for each indicator will be collected? Is there any indicator that require a level of effort that cannot be managed?
- Review indicators? Have we include indicator that produce different information? is the information enough for project management decisions? Can they be used to generate learning and test the if-then-logic?

- Between one and three indicators per objective statement
- When you have too many indicators: discuss which produce meaningful information and which ones focusing on “Leaps of Faith” aspects

Practical Guidance on Developing Indicators
How to develop the Indicators

Best Practices: Step four

Refine the final indicator statements: Make sure to include indicators elements and start defining any ambiguous terms.

This is not a linear process! this often need several revision rounds!

How to develop the Indicators

What is different in emergencies?

- Simple indicators tracking delivery of support, use of delivered items and services, and satisfaction with support.
- Use tested indicators for emergencies either prescribed by donors or Sphere standards which are adjusted to the context based on assessment results.

Industry-recognized, standard indicators can be very useful, and often it is best to use a combination of standardized indicators and those designed specifically for the local context.

- Shere Project: https://spherestandards.org/

BOX 6: Types of industry (standard) indicators

Industry-recognized, standard indicators vary from sector or project/programme area. The following is a summary of key types of industry-recognized indicators:

- **Industry indicators** developed for use across the humanitarian industry. Examples include the Sphere Project and the Humanitarian Accountability Partnership. (While many industry codes and standards exist, they do not all necessarily include standard indicators, but may be left to interpretation by individual organizations.)

- **Sector-specific or thematic indicators** developed for use in specific thematic sectors. Examples include the sectors covered by the Sphere Project, progress indicators for the United Nations Millennium Development Goals and thematic groupings such as the IFRC HIV Global Alliance indicators.

- **Cluster indicators** developed by some of the UN Clusters to assess achievements of the overall focus area of the cluster. These are particularly useful where outcomes and impact achieved cannot be attributed to the work of one organization, but rather to the collective efforts of multiple organizations in a cluster or across clusters.

- **Organization-specific indicators** which have been developed for use in specific operations or for organizational reporting against its strategy. The seven key proxy indicators detailed for the Federation-Wide Reporting System (FWRS) are an example of this, as are the ICRC’s standard indicators on beneficiary counting.
Indicators

**Tips**

- **Definitions** help clarify the indicator - e.g. # of refugees that can access safe and dignified job opportunities
- For complex indicators “break down” its components - e.g. % of refugees that have increased sense of belonging and sense of safety
- **Community defined indicators** can help refine an indicator
- Include **formula for calculation** when your indicator is expressed as percentage or ratio
- **Disaggregate!**
- Use donor’s indicators for your purposes!
- Use **proxy** indicators when a direct measure is not feasible
- When you anticipate challenges in data collection, consider other alternatives
- Make sure to set reasonable targets for all your indicators
- **Frequency of data collection** and analysis should be aligned with project detailed implementation plan! consider seasonality where this applies!
Indicators

Resources

A guide to the MEAL DPro
https://mealdpro.org/

Practical Guidance on Developing Indicators

IndiKit: Rapid Guide to Designing SMART indicators
https://www.indikit.net/userfiles/files/IndiKit/Rapid%20Guide%20to%20Designing%20SMART%20Indicators%20FINAL.pdf

BHA: Indicator Handbook II

Project/programme monitoring and evaluation guide

ProPack I: The CRS Project Package
Time for Q&A!
Thank you!