Country MEL Training - Zambia

Innocent Bikara
M&E Specialist - WorldFish & ICARDA

12th December 2019
Introduction to M&E Terminologies

Results Hierarchy

- **Activities**: Services that the project provides e.g. training

**Deliverables**: Material that are potentially available upon completion of a task (activity/sub-activity) and cut thus serve as evidence for activity
Introduction to M&E Terminologies

Results Hierarchy

- **Outputs**: Quantifiable products that result from the execution of project activities.
  - Entail one or more deliverables
  - Directly within the control of project management
Introduction to M&E Terminologies

Results Hierarchy

- **Outcomes**: Changes in human behavior and practices as well as systems. The project can reasonably be said to cause these.

- **Impact**: Long-term results of one or more projects over time. The project can only contribute to results at the impact-level.
Introduction to M&E Terminologies

Results Hierarchy vs. Objectives Hierarchy

**RESULTS HIERARCHY**
- Impact
- Outcome
- Outputs
- Activities

**OBJECTIVES HIERARCHY**
- Goal
- Purpose
- Outputs
- Activities
Project Mapping (Center, CRP, SRF, SDGs)

Results Frameworks

SDG Agenda

WorldFish Strategic plan

Donors RF

CGIAR-SRF

CGIAR SRF

Institutional Strategy

SDGs
UN-led SDGs (17), WorldFish contributes to 10 of these.
### Project Mapping (Center, CRP, CGIAR SRF, SDGs)

#### The SRF-CRP-Centers-SDG Relationship- 2/2

<table>
<thead>
<tr>
<th>SDGs</th>
<th>SLO</th>
<th>IDO</th>
<th>Sub-IDOs</th>
<th>CRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduced poverty</td>
<td>1.3 Increased incomes and employment</td>
<td>1.3.1 Diversified enterprise opportunities</td>
<td>FP1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3.2 Increased livelihood opportunities</td>
<td>FP2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3.4 More efficient use of inputs</td>
<td>FP3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.4/2.1 Increased productivity</td>
<td>1.4.1/2.1.1 Reduced pre- and postharvest losses, including those caused by climate change</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4.2/2.1.2 Closed yield gaps through improved agronomic and animal husbandry practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4.3/2.1.3 Enhanced genetic gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4.5/2.1.5 Increased access to productive assets, including natural resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Improved food and nutrition security for health</td>
<td>2.2 Improved diets for poor and vulnerable people</td>
<td>2.2.1 Increased availability of diverse nutrient-rich foods</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.2 Increased access to diversified nutrient-rich foods</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.3 Optimized consumption of diverse nutrient-rich food</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3 Improved food safety</td>
<td>2.3.1 Reduced biological and chemical hazards in the food system</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.4 Improved human and animal health through better agricultural practices</td>
<td>2.4.2 Reduced livestock and fish disease risks associated with intensification and climate change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Project mapping (CRP, SRF, Center Strategy, SDGs)

**Where in MEL do we do the mapping? (1/7)**

<table>
<thead>
<tr>
<th>Where in MEL</th>
<th>CRP</th>
<th>Center Strategy or Framework</th>
<th>SRF</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Edit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 1</td>
<td>✓</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Section 6</td>
<td></td>
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<tr>
<td>Project Manage</td>
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</tr>
<tr>
<td>BUS</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Output</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Outcome</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reporting Deliverable</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
### Project Mapping (CRP, SRF, Center Strategy, SDGs)

**Where in MEL do we do the mapping? (2/7)**

#### Project to CRP in Edit (section 1)

<table>
<thead>
<tr>
<th>Implementer</th>
<th>Joseph Haegel - wfd</th>
<th>Muhammad Meezanur Rahman - wfd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>Joseph Haegel - wfd</td>
<td>Muhammad Meezanur Rahman - wfd</td>
</tr>
<tr>
<td>Project Co-Manager</td>
<td>Muhammad Meezanur Rahman - wfd</td>
<td>Muhammad Meezanur Rahman - wfd</td>
</tr>
<tr>
<td>Period of implementation</td>
<td>2016-04-01 - 2018-12-31</td>
<td>2019-09-30</td>
</tr>
<tr>
<td>Donor(s)</td>
<td>University of Stirling - STIR - Scottish Universities, standing</td>
<td></td>
</tr>
<tr>
<td>Contact</td>
<td>Select contact</td>
<td>Do you want to make it public in the view page of your project? Yes No</td>
</tr>
<tr>
<td>Agreement ID</td>
<td>AG10289</td>
<td>Budget</td>
</tr>
<tr>
<td>Type</td>
<td>W1/W2</td>
<td>Bilateral</td>
</tr>
</tbody>
</table>

**Is the donation coming via another partner?** Yes No

**Is the project mapped to Non-CRP?**

**CRP(s) to which the project is be mapped**

<table>
<thead>
<tr>
<th>CRP</th>
<th>CRP on Fish Agri-Food Systems - FSH - Malaysia, Penang</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP</td>
<td>FSH-FPI - Sustainable aquaculture</td>
</tr>
<tr>
<td>CRP</td>
<td>RSH-JPI-2 - Fish health, nutrition and feeds</td>
</tr>
</tbody>
</table>

[Save and Continue Edit]
Project Mapping (CRP, SRF, Center Strategy, SDGs)

Where in MEL do we do the mapping? (3/7)

Project to Center Strategic Objectives in Edit (section 6)
Where in MEL do we do the mapping? (4/7)

BUS mapped to CRP & Center Strategy

Yearly Budget → Edit
Project mapping (CRP, SRF, Center Strategy, SDGs)

Where in MEL do we do the mapping? (5/7)

Output Mapping to CRP & Center

<table>
<thead>
<tr>
<th>ID</th>
<th>Output</th>
<th>Type</th>
<th>Role</th>
<th>Start Date</th>
<th>End Date</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>8631</td>
<td>Aquaculture Management Practise and farmer behaviour influenced.</td>
<td>Technologies and practices</td>
<td>You don't have any responsibility</td>
<td>2016-01-03</td>
<td>2019-09-30</td>
<td>Edit, Edit OECD Relevance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Edit AR Indicator</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Partners</td>
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<tr>
<td></td>
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<td>Deliverables</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>WF Indicators</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Output is missing incoming connection(s).</td>
<td></td>
<td></td>
<td>CRP Mapping</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>WF Mapping</td>
</tr>
<tr>
<td>8632</td>
<td>Impact measured and communication to policy/government level promoted.</td>
<td>Innovation Platform</td>
<td>You don't have any responsibility</td>
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<td>2019-09-30</td>
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<td></td>
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<td>Delete</td>
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<td></td>
<td></td>
<td>Admin-Edit OECD Relevance</td>
</tr>
</tbody>
</table>

[Diagram of a spreadsheet showing output mapping to CRP & Center]
Project mapping (CRP, SRF, Center Strategy, SDGs)

Where in MEL do we do the mapping? (6/7)

Outcome Mapping to SRF, CRP & Center

[Diagram of Outcome Mapping to SRF, CRP & Center]
Project mapping (CRP, SRF, Center Strategy, SDGs)

Where in MEL do we do the mapping? (7/7)

Mapping deliverable to SDG
Impact pathways & Theories of Change

Quick Tips

Documentation of our BEST understanding of how our work is likely to lead to the impacts we envision.

What an Impact pathway and ToC have in common

Logically linked results chain

Activities → Outputs → Outcomes → Impact
In addition to a logically linked results chain, a theory of change comprises of:

- Assumptions (hence risks if assumptions do not hold)
- Evidence of linkages
- Change mechanisms (based on assumptions & evidence)
Impact pathways & Theories of Change
Why a ToC should be preferred to an IP

Enabler for adaptive management (activates the L in ‘Monitoring, Evaluation & Learning’)

- Risk monitoring included as part of project M&E
- Learning agenda formulated from the critical examination of the evidence upon which the linkages are based
## Logical Framework

<table>
<thead>
<tr>
<th>Result Chain</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Means of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Outcome(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Necessary conditions for the outcome(s) to lead to the impact</td>
</tr>
<tr>
<td>Outputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Necessary conditions for the output(s) to lead to the achievement of the outcome(s)</td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Necessary conditions for the activities to lead to the achievement of the respective outputs</td>
</tr>
</tbody>
</table>
Introduction to Indicators

Relation to what we are more familiar with....

We are ALL familiar with indicators!!

Without indicators you & other road users are at risk!

Risk of costly traffic tickets vs. corrective action
Introduction to Indicators

Defining project/program indicators

There are multiple ways project indicators can be defined:

- A unit of information that if measured across time and space provides evidence as to the achievement of (or lack of) results, targets, and objectives.

Objectives:

- (To) Enhance the productivity of the aquaculture farms

Results:

- Increased productivity of the aquaculture farms

Targets:

- 40 percent increase in the productivity of the aquaculture farms
Introduction to Indicators

Defining project/program indicators

There are multiple ways project indicators can be defined:

A unit of information that if measured across time and space provide evidence as to the achievement of (or lack of) results, targets, and objectives.
Baseline

Output level indicators:

Baselines by default should be considered ZERO, because outputs are a result of the project’s activities, so what is already in place does not count as a baseline for the proposed project.

Exceptions:

- Proposals for project extension (in which case the achievements to be demonstrated span both the original and extension periods);
- Project funded by multiple donors where there is need to demonstrate to the new donor that the funds sought are meant to continue existing work.

Outcome and Impact level indicators:

Advisable that these are always established either at the point of proposal development, or where not readily available (most of the cases), the project MUST plan for this at the project inception stage.

- Does not always have to be established through fully-fledged baseline studies
Baselines

Decision support Workflow

Is the project area within or similar to the area WorldFish has been operating in?
- Yes
- No

Are there studies previously conducted by WorldFish that included variables that can be used to establish baseline values?
- Yes
- No

Is there a partner institution that has worked on the same/related technologies?
- Yes
- No

Has the partner institution carried out research that includes measurement of variables of interest, at scale (disaggregation) comparable with the WorldFish project scope and the data collection period compares well with the project start date or the variables can not reasonably be presumed to have changed?
- Yes
- No

Do benefits from a fully fledged baseline study/survey outweigh the cost?
- Yes
- No

Is the MEL & IA team contented with the quality of data?
- Yes
- No

Has the partner institution carried out research that includes measurement of variables of interest, at scale (disaggregation) comparable with the WorldFish project scope and the data collection period compares well with the project start date or the variables can not reasonably be presumed to have changed?
- Yes
- No

Baseline values established through secondary literature review or secondary data analysis

Baseline values established through secondary literature review or secondary data analysis

Do benefits from a fully fledged baseline study/survey outweigh the cost?
- Yes
- No

Conduct baseline study/survey to establish baseline values

Record zero baseline values for outcome

No need to establish baseline values (seek donor approval)

Both outcome and impact level baseline values established through review of reports and/or indicator values reported on the MEL Platform

Did the study include impact level results/indicators in addition to outcome results/indicators?
- Yes
- No

No impact-level measurement

Is there a national authority that conducts research that includes measurement of variables of interest, at scale (disaggregation) comparable with the WorldFish project scope and the data collection period compares well with the project start date or the variables can not reasonably be presumed to have changed?
- Yes
- No

Review data of implementing Institutions

Baseline values established through secondary literature review or secondary data analysis

Baseline values established through secondary literature review or secondary data analysis

Conduct baseline study/survey to establish baseline values

No need to establish baseline values (seek donor approval)

Outcome level

Record zero baseline values for outcome

No need to establish baseline values (seek donor approval)
Consider a project with implementation period 2018-2021

Result(s) to be achieved by 2021 is/are target(s), and at defined periods before project end are milestones

100 farm households using improved tilapia strains

500 farm households using improved tilapia strains

1,000 farm households using improved tilapia strains

5,000 farm households using improved tilapia strains

Both target and milestones can be defined for each indicator at all result levels
Means of Verification

DATA COLLECTION SOURCE(S)

Where the information about the indicator can be obtained

MEANS OF VERIFICATION

DATA COLLECTION METHOD(S)

How the information about the indicator can be obtained
Defining project/program indicators

A unit of information that if measured across time and space provide evidence as to the achievement of (or lack of) results, targets, and objectives.

Looking at key attributes of quality indicators

SMART?
Key Attributes of Quality Indicators- 1/6

Representative

The indicator should closely relate to the result it is intended to measure

Unbiased

Indicators do not specify a direction of achievement. Words, improved, reduced, increased, enhance, e.t.c, do not belong in an indicator statement

It is of no good having a well stated indicator that is not related or has a weak association with the result(s) it is intended to measure
Precise

There should be general agreement on the interpretation of the results.

<table>
<thead>
<tr>
<th>Result</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economically vibrant and climate-smart sustainable increase in fish</td>
<td>Value addition (40% increase)</td>
</tr>
<tr>
<td>production and productivity for food security, nutrition and income</td>
<td></td>
</tr>
<tr>
<td>generation and livelihood improvement</td>
<td></td>
</tr>
</tbody>
</table>

Is the value addition related to economic vibrancy, productivity, climate-smartness, food security, production, income?

**Representativeness:** Clearly, one indicator is not representative/comprehensive to measure the results stated. Need to create a set of complimentary indicators. But keep in mind the need to maintain a manageable number of indicators.
Key Attributes of Quality Indicators- 3/6

One-dimensional

One-dimensional: Measures only one phenomenon at a time, i.e. do not combine too much in one indicator.

Imagine if both of the above scales were combined at one end?

Percentage increase in yield, net-returns, consumption due to adoption of the improved technologies.

Responsive & Attributable

Indicator measures can be changed by program actions.

How frustrating would it be if you stood on a weighing scale, jumped, & there is minimal or no change in the reading?
Indicators should be able to be measured repeatedly with reasonable precision by different people.
Key Attributes of Quality Indicators- 5/6

**Capable of being Disaggregated**

Ensure more can be explored from an aggregate value by creating lower levels that are summed, averaged,… to derive the aggregate value.
It should be feasible to collect data for computation of indicator values in a timely manner and at reasonable cost.

The indicator values should communicate information useful for management decision making.
Indicator Details

Documentation and scope of Information

Project

- Indicators Reference Manual
- M&E Plan
- Logframe
- List

Indicator statement

- Definition
- Level
- Target*
- Rationale
- Baseline**
- Data sources
- D. Collection methods
- Frequency of D.C.
- Disaggregation
- Evidence required
- Measurement unit
- D.C responsibility

Comments & limitations

Detail
<table>
<thead>
<tr>
<th>ID</th>
<th>Output</th>
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</tr>
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Indicators in the MEL Platform

Outcome Indicators in MEL
Indicators in the MEL Platform

Indicator Setting in MEL - 1/9

Indicators can be Added or ‘Retrieved’

Indicators

Add Indicator ➔ Retrieve from CRP Level ➔ Retrieve from Center level ➔

10 records

ID ▲ Name ▼ Unit ▼ Explanation ▼ Actions

No data available in table

Showing 0 to 0 of 0 entries
Indicators in the MEL Platform

Indicator Setting in MEL - 2/9

Retrieving Indicators from CRP Level

Retrieving from CRP Level

Mapping level:
- All
- Flagship
- Cluster
- Product
- Outcome

<table>
<thead>
<tr>
<th>CRP</th>
<th>Level</th>
<th>Name</th>
<th>Unit</th>
<th>Explanation</th>
</tr>
</thead>
</table>

No data available in table

Showing 0 to 0 of 0 entries
## Indicators in the MEL Platform

### Indicator Setting in MEL - 3/9

Retrieving Indicators from Center Level (i.e. related to the Center Strategic Plan)

<table>
<thead>
<tr>
<th>Center</th>
<th>Level</th>
<th>Name</th>
<th>Unit</th>
<th>Explanation</th>
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</thead>
</table>

No data available in table

Showing 0 to 0 of 0 entries
Indicators in the MEL Platform

Indicator Setting in MEL - 4/9

Adding Indicators (with options to link to CRP & Center)
Thank You