M&E workshop Rabat 2016

The Results Chain and Logical Framework

David N. Margolis, Paris School of Economics

Slides prepared by Kevin Hempel
Agenda

• The Results Chain

• Indicators & Data Collection Plan
Theory of change: An example

Intervention:
Job-training for youth

Youth have increased level of skills

Employers satisfied with young employee

Reduced time to find a quality job

Ability to keep the job (lower turnover)

Reduced social pressure from family and peers

Higher monthly earnings

Improved physical health

Increased level of self-esteem

Ability to financially support family

Ability to marry and start a family

Higher degree of overall happiness

Improved housing

Positive intergenerational effects
Results chain

INPUTS/RESOURCES → ACTIVITIES/PROCESSES → OUTPUTS/PRODUCTS → SHORT-TERM OUTCOMES → LONG-TERM IMPACT

Source: GIZ
Results Chain/Logic model

Inputs
- Resources
  - Money
  - Facilities
  - Equipment
  - Supplies
  - Staff
  - Technical expertise

Activities
- What the program does
  - Re-design curriculum to include business skills
  - Organize workshops for teachers
  - Deliver classes for students

Outputs
- Products or services produced / provided
  - New curriculum approved
    - Teachers trained
    - Youth trained in business concepts

Outcomes
- Direct effects/benefits of outputs
  - Curriculum widely implemented
    - Better understanding of business mechanisms
    - Improved soft skills
    - Improved employability
    - Increased interest for higher education

Impacts
- Long-term effects on living standards
  - Lower youth unemployment
  - Higher household income

Level of your stated project objectives.

Planned work

Intended results
Results chain: Microfinance

**Inputs**
- Microcredit Product

**Outputs**
- Business Investment
  - Start new business
  - Improve current business
- Business Activity
  - Increased sales
  - Increased profit

**Outcomes**
- Increased Household Income

**Impacts**
- Increased Household Saving/Spending On
  - Health
  - Education
  - Other Assets
- Physiological Health
- Intellectual Education
- Psychological Life satisfaction
- Social Empowerment

**Investment**

**Improved Standard of Living**

**Improved Well-Being**
An intervention can lead to a range of outcomes

- Skills
- Psychosocial well-being
- Employment
- Financial inclusion
- Risky behaviors
- Family formation
- Citizenship
- Investments in Human Capital
- ...

...
Kirkpatrick’s model of training evaluation

1. Reaction
   - Did they like it?

2. Learning
   - Did they learn it? Did they acquire new knowledge?

3. Behavior
   - Did they apply the learning?

4. Results
   - Did the change in behavior lead to concrete improvements?
Always be aware of unexpected outcomes

Example: Entrepreneurship curriculum in secondary schools

- Improved overall employability for boys and girls.
- Increased interest for higher education.
- Higher workload through additional classes.
- Parents learn business skills from children.
- Lower grades in other classes.
India's micro-finance suicide epidemic

By Soutik Biswas

BBC News, Medak, Andhra Pradesh

Unintended outcomes are not just theory – they are real!!

India has 30 million households who have accessed micro-loans.

In his grotty, two-room brick home, all that remains of Ketaki Ramchandra Moorthy is a laminated colour photograph sitting on the cold cement floor.

Two months ago, the 40-year-old carpenter dropped dead after a heart attack at a bus station in Hyderabad, some 70km (43 miles) away from his rural home in the south-east Indian state of Andhra Pradesh.

He had travelled to the city to beg friends for cash to pay loans he had taken over the course of a year from private micro-credit firms.

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Agenda

- The Results Chain
- Indicators & Data Collection Plan
To operationalize your Results Chain you need to choose appropriate indicators and data collection mechanisms.

- Define indicators/measures
- Define data collection tools
- Define assumptions
## Defining indicators: the basics

### What is an indicator?
- Key aspect of the element that you want to measure (Indicative, not necessarily fully representative)
- Sign that something has been done or achieved (marker of success)

### Type of indicators

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Existence of...</td>
</tr>
<tr>
<td>Percentage</td>
<td>Level of...</td>
</tr>
<tr>
<td>Ratio</td>
<td>Extent of...</td>
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</table>

### Indicator quality standards

Indicators should be **SMART:**
- **Specific:** Measure information required as closely as possible
- **Measurable:** Must be precisely defined so that their measurement is unambiguous
- **Achievable:** Data can be obtained in timely fashion and at reasonable cost
- **Relevant:** Must provide information useful to the project and help guide decisions that key users will need to make
- **Time-bound:** Has a target date by when the change is expected
Defining indicators: other considerations

- Indicators needed for all levels of the results chain (especially outputs and outcomes)
- Choose the right number of indicators (no overload)
- Disaggregate the indicators (e.g. by age, gender)
- Establish a baseline
- Define targets
- Consult project stakeholders in the indicator selection
- Are there industry-standard indicators?
- Are certain indicators required by the donor or program? (e.g. when project part of larger accountability framework)
- Are there secondary indicator sources?
Defining indicators: Example

Outcome to be measured:
Improved employability of youth aged 18-24

Indicator example 1: Youth find jobs more easily

Indicator example 2: Number and percentage of youth who have at least two job offers that pay above minimum wage in their field of training within 3 months of completing the program
Example 2

Outcome: Improved employability of project participants

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of job seekers placed in jobs by end March 2015</td>
<td>0</td>
<td>200</td>
</tr>
<tr>
<td>Percentage of trainees hired in the company where they received their trainings</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Percentage of apprentices and trainees trained in first quarter that have found a job by the end of following quarter</td>
<td>50</td>
<td>80</td>
</tr>
</tbody>
</table>

Output: Apprenticeships and on-the-job training schemes established in Greater Cairo

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of youth who enrol in apprenticeship program</td>
<td>50</td>
<td>300</td>
</tr>
<tr>
<td>Number of youth who complete apprenticeship</td>
<td>25</td>
<td>150</td>
</tr>
<tr>
<td>Percentage of female participation in apprenticeship</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>
Defining means of verification

How will we collect the data?

Quantitative methods:
Provide objective information in closed-form (e.g. surveys)

Qualitative methods:
Provide understanding of how and why people think and behave they do (e.g. focus groups)

When/how often?

No one size fits all, depends on project needs

The higher the level of the results chain, the less frequent our data collection becomes

For example:
• Attendance: ongoing
• Enrollment: monthly
• Satisfaction: End of project
• Employment outcomes: Several months-years after completion

Who will collect it?

• Program manager
• M&E officer
• Trainers
• Implementing partners
• Local stakeholders
• External consultants
• Survey firm
• ...

If you cannot find information about your indicator, you need to look for another indicator/proxy.
Defining assumptions

- What are the key factors that could diminish the potential effects of our projects, and what steps can be taken to mitigate them?

- We can identify assumptions at each level of the results chain that are critical to reaching what we have planned to do/achieve.

- Some of the assumptions are usually related to project risks.

<table>
<thead>
<tr>
<th>Category</th>
<th>Potential Assumption</th>
<th>Under Our Control? Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>• Trainers willing to work in project area can be found</td>
<td>• Yes, but not hired yet</td>
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<td>• Employer association ready to partner</td>
<td>• Yes, memorandum of understanding already signed</td>
</tr>
<tr>
<td>Activity</td>
<td>• Electricity available for training location</td>
<td>• No, but no problems in recent months</td>
</tr>
<tr>
<td>Output</td>
<td>• Youth can attend training and don’t have to work to support family</td>
<td>• No, but vouchers given to compensate for lack of income</td>
</tr>
<tr>
<td>Outcome</td>
<td>• Training is relevant to labor market needs and delivered with high quality</td>
<td>• Yes, employer surveys carried out and trainers’ performance will be monitored</td>
</tr>
<tr>
<td>Higher-Level Outcomes</td>
<td>• Local economy (including market prices and wages) remains stable</td>
<td>• No, but predictions are good</td>
</tr>
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Example: Assumptions in women entrepreneurship project

**Assumptions**
- Business responds to market needs
- Women ownership over resources
- Women don’t use income for personal consumption
- Women invest income in their children
- Women want to grow the business

**Positive outcome scenario**
- Women create businesses
- Sales & Profits
  - Improvements in Household income
  - Profits reinvested
- Improved nutrition and health
- Improved education for children
  - Job creation for others
- Poverty reduction

**Negative outcome scenario**
- Women get start-up loan and coaching
- Business fails
  - Husband takes profits
  - Money used for cigarettes
- Personal debt increases
## Putting it all together: The “Logical Framework” as a project management tool

### Example: Entrepreneurship curriculum in schools

<table>
<thead>
<tr>
<th></th>
<th>Objectives</th>
<th>Indicators/Measures &amp; Targets</th>
<th>Information source (how?)</th>
<th>Frequency (when?)</th>
<th>Responsible (who?)</th>
<th>Assumption</th>
</tr>
</thead>
</table>
| **Impact**   | • Lower youth unemployment  
• Higher household income | • Unemployment rate (%)       
• Household income ($) increases by 10% | • Employment statistics (ministry, city level)  
• Household survey | • yearly | • project team | • New skills are demanded and rewarded by labor market |
| **Outcomes** | • Curriculum widely implemented  
• Better understanding of business mechanisms  
• Improved soft skills  
• Improved employability  
• Increased interest for higher education | • 500 schools use new curriculum  
• 50% more correct answers on pre-/post-business knowledge test  
• 70% students satisfied with new curriculum  
• Teacher and parent perceptions of soft skills improves by 30%  
• Job-search time falls 50% and employer satisfaction increases 30%  
• 5% increase in university enrollment | • Interview with official education authority  
• School test results  
• Focus group with teachers and parents  
• Employer survey  
• Regional school enrollment statistics | • bi-yearly | • project team  
• project team (interviews, collection of statistics)  
• consultant (survey, focus group) | • Curriculum accepted by local school authorities  
• Quality of teaching  
• Youth can attend school regularly |
| **Outputs**  | • New curriculum approved  
• Teachers trained  
• Youth trained in business skills | • New curriculum approved by ministry  
• 500 teachers trained  
• 10,000 youth completed the training | • project data | • bi-monthly | • project team |   |
| ...         |           |                               |                           |                   |                   |                                                                           |
# Alternative representation of logframe

## Project Objective: ...

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline value (year)</th>
<th>Target Year 1</th>
<th>Target Year 2</th>
<th>Target Year 3</th>
<th>Target Year ...</th>
<th>Information source (how?)</th>
<th>Frequency (when?)</th>
<th>Responsible (who?)</th>
<th>Notes</th>
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## Component X: ...

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Conclusions

• Having a clear project theory is essential to project management and learning

• Traditionally focus of M&E has been on inputs, activities, and outputs, but nowadays the focus is on outcomes and impacts/higher-level outcomes

• Good indicators are critical to measuring progress