

Building Integrated M&E Systems Training

Royal Scientific Society / National Energy
Research Center

July 21-24, 2019

References Utilized

- USAID/Jordan KaMP (2018)
- HIVOS (2014)
- Starr and Fornoff, (2016)
- Vogel (2012)
- LearningLab.org (2019)
- Better Evaluation (2013)
- AI Commons (2015)

Expectations

- What are your expectations?



Ground Rules

- Time Management
- Breaks
- Cell Phones
- What else?



Workshop Objectives

By the end of the workshop participants will:

- Identify the basic purposes and scope of monitoring & evaluation;
- Differentiate between monitoring functions and evaluation functions;
- Monitor projects and achievement of objectives;
- Identify appropriate qualitative and quantitative data collection techniques;
- Select and use appropriate data collection methods and tools effectively;
- Identify how and when the Theory of Change (TOC) should be developed and how they inform project development;

Workshop Objectives

By the end of the workshop participants will (continued):

- Review approaches to Building M&E systems and design project TOC;
- Identify and analyze the problem and address it systematically using problem and objective analysis;
- Define specific, measurable outcomes and demonstrate that your organization can deliver them;
- Develop causal pathways illustrating how efforts will contribute to changes;
- Identify assumptions that will need to be test throughout the project cycle.

Overview- Day 1

- M&E in the Project Cycle.
- Project Design and Theory of Change (TOC) essentials
- What are they what is the purpose of each?
- What are the core components of a M&E system?

Building Integrated Project M&E Steps:

- Step 1: Problem Definition
- Step 2: Assessing the Context
- Step 3: Goal Identification

What is a Donor?

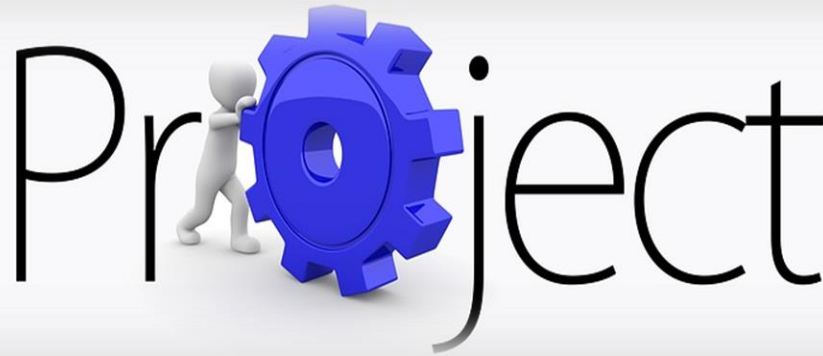
- In the context of international development, a donor is described as a group, foundation, government institution, or multilateral organization which supports development aims through aid.
- Examples of donors are the USAID, UN, and the World Bank.
- **Can you think of more examples?**
- **Who funds MINARET?**

What is a Project?

- A set of executed activities, over an established timeline and budget, intended to achieve a specific result.
- Project design, implementation, planning and oversight, and project monitoring and evaluation are the donor's staff responsibilities.
- **What are projects made of?**

Project Implementation

- What is a work plan?
- What is an implementation plan?
- What is a MEL plan? And what does MEL stand for?



What is a MEL Plan?

A Monitoring, Evaluation and Learning (MEL) is a tool used by donors to plan and manage the process of:

- Monitoring strategic performance and operational context;
- Evaluating performance and impact;
- Learning from Evidence.

The MEL Plan is used to inform decision-making, resource allocation, and adaptation at the strategy level.

Monitoring

- The ongoing and routine collection of performance indicator data and other quantitative or qualitative information to reveal whether implementation is on track and whether expected results are being achieved.
- Performance monitoring continues throughout the life of a project.



Evaluation

- The systematic collection and analysis of information about the characteristics and outcomes of strategies, projects, and activities conducted as a basis for judgments to improve effectiveness, and timed to inform decisions about current and future programming.
- **When does it take place?**



Benefits of M&E

Monitoring

- Assess compliance with work plans and budgets;
- Uses information for project management and decision making;
- Answers the question, “**are we doing the project right?**”

Evaluation

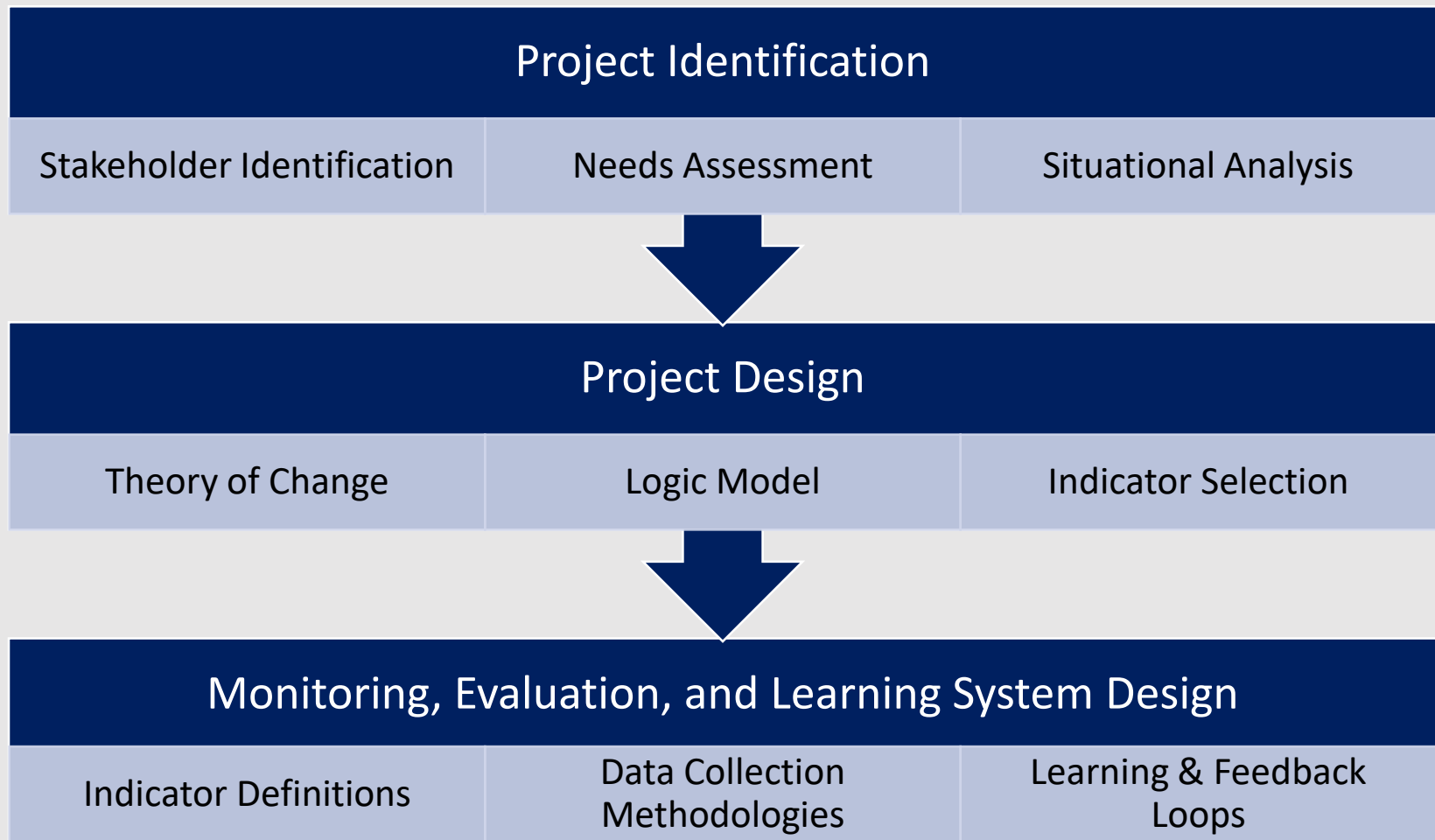
- Looks at project relevance, efficiency, effectiveness, and sustainability;
- Generates useful information about the impact of the intervention;
- Answers the question, “**are we doing the right project?**”

Learning

- A continuous process of analyzing a wide variety of information sources and knowledge (including evaluation findings, monitoring data, innovations and new learning) that brings to light new, promising practices.
- Pause and reflect: the act of taking time to think critically about ongoing activities and processes and to plan for the best way forward.



M&E and the Project Cycle



Project Design Fundamentals

Change
Pathways

Causal Logic

Existing
Evidence

Assumptions

Indicator Levels

Element	Definition	Examples
Inputs	The primary resources required to carry out the project.	<u>What the project needs and uses:</u> <ul style="list-style-type: none"> •Funds; Human resources; Facilities & equipment; Partners and community groups •Indicator: Number of curriculum textbooks printed
Activities	Sets of actions which use inputs to produce specific outputs.	<u>Things a project does:</u> <ul style="list-style-type: none"> •Provide training; develop websites; Offer access to Micro-finance; Provide TA •Indicator: Number of teacher trainings conducted
Outputs	The immediate products of project activities (direct, tangible)	<u>What immediately results from activities:</u> <ul style="list-style-type: none"> •People trained / mentored; website operational; Micro-finance manuals produced & distributed. •Indicator: Number of teachers trained
Outcomes (Results)	The things that happen because of what a project or program does.	<u>What occurs because of the project:</u> <ul style="list-style-type: none"> •Employment of youth in target areas / sectors increased •Increased use of new practices among target groups •Indicator: Number of teacher implementing new practices in the classroom
Impact	Longer-term changes in conditions or situations linked to project interventions	<u>What the project contributes to or may cause:</u> <ul style="list-style-type: none"> •Increased GDP •Reduced prevalence of HIV •Indicator: Literacy rates for children in grades 1-8

Group Exercise 0: Define the M, E and the L

- On several post-it notes, write words related to Monitoring, Evaluation and words related to Learning.
- Stick the note in the designated space on the wall.



TIME: 5 Minutes

Theory of Change

What?

Why?

When?

How?

Theory of Change

- An **approach** to the design of social programs, structured to clarify the causal logic and causal pathways by which change will occur
- **A process and a product**
- Details ideas and beliefs about **HOW** and **WHY** change will happen
 - From the perspective of the project, or organization
 - Based on existing evidence
 - Based on a deep understanding of the context and series of analyses

Theory of Change

- Demonstrates/describes the pathways of change
 - Causal logic
 - Could be used to complete the sentence, “if we do X, then Y will change **because....**”
- Identifies assumptions behind the expected change
 - Programmatic assumptions (addressed by the project)
 - Contextual Assumptions (beyond the control of the project)
- **A process of critical questioning (evaluative thinking)**

Theory of Change Process

- A participatory process of critical questioning, intentional design
- Purpose driven
- Participation of a wide range of stakeholders (internal and/or external to Project)
- Comprehensive Analysis
 - Stakeholder, Gender, Political Economy, Conflict, etc. analyses
- Articulate and challenge implicit and explicit assumptions

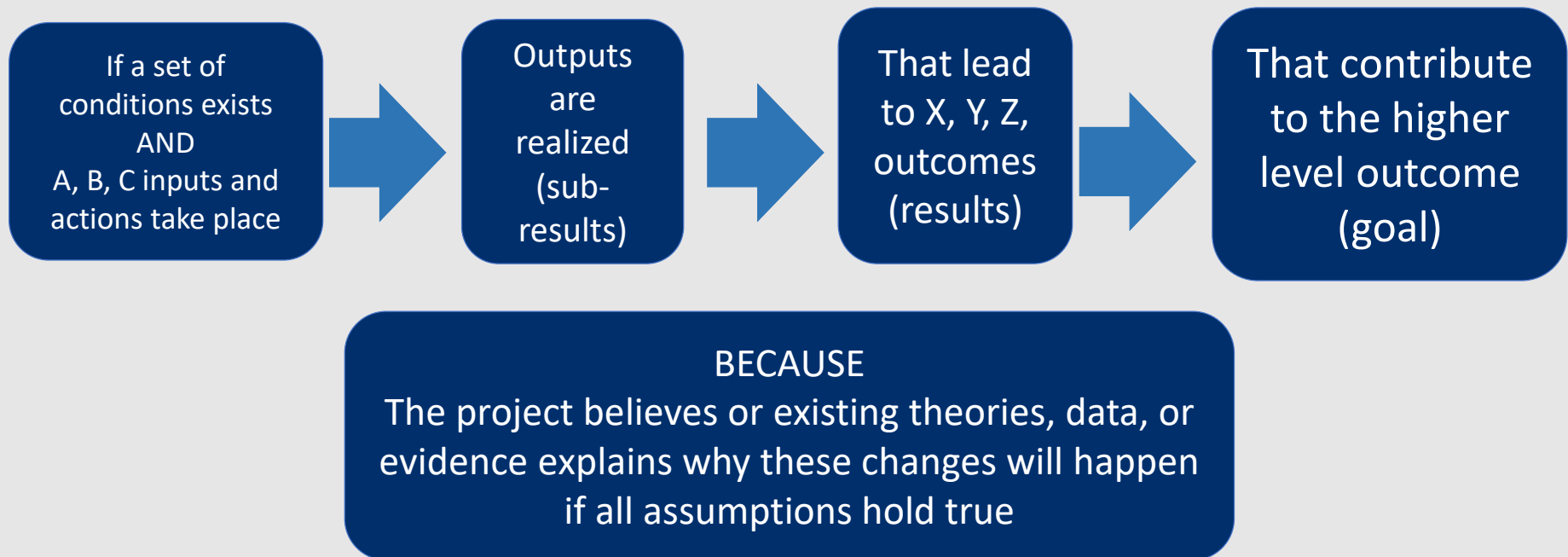
Theory of Change Process

- Test hypotheses about how change will occur
- “Pause and Reflect”
 - On-going, iterative process of reflection
 - Update theory of change based on new evidence and experience (research, evaluations, monitoring data, learning, implementation experience)

Theory of Change Products

- **Graphic or visual depiction**
 - Captures the major aspects of discussions from the TOC process
 - Flexible with no particular format: can include cyclical processes, feedback loops, one result could lead to multiple other results, different shapes can be used, etc.
- **Narrative description**
 - Complements and describes the TOC visual and related discussions in more depth
 - No set length

Pathways of Change



TOC Narrative

- **A complement to the TOC visual**
- It covers:
 - The **context** in which the development problem is situated
 - Intended **results and sub-results**
 - **Description of HOW and WHY** change is expected to happen
 - Causal pathways leading to the desired change (in part, if-then statements can be used)
 - Evidence (as applicable) supporting hypothesized causal linkages
 - **Major interventions** that you the project will undertake to catalyze these outcomes
 - **Key assumptions** that underlie the success of this theory
 - **Key indicators** to monitor how progress unfolds during implementation

What is the difference?

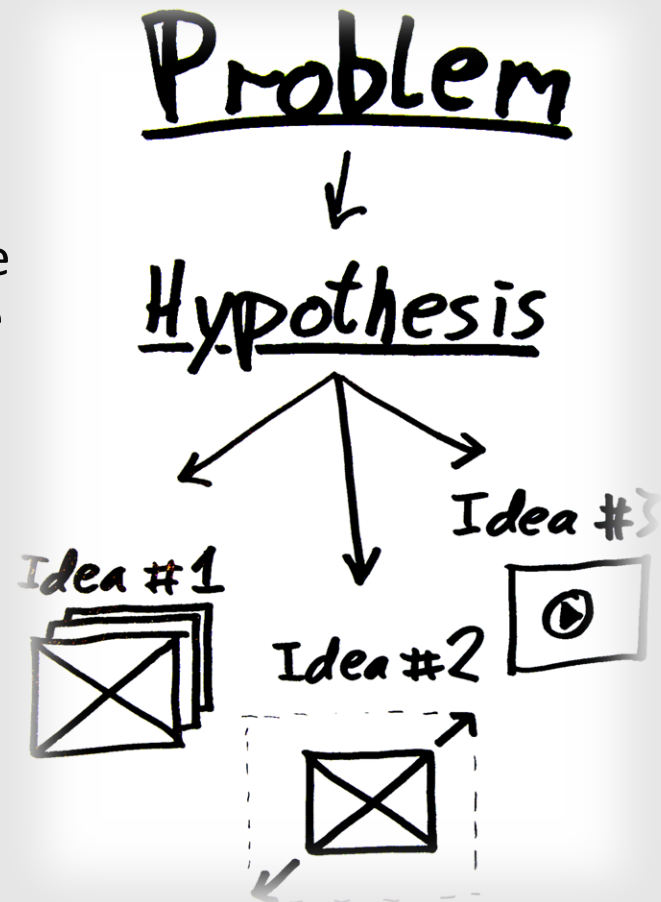
- TOC and Development Hypothesis?
- TOC and Logic Model?



What is the difference?

- **Development Hypothesis**

- A synonym for theory of change
- In practice, a short statement of the main hypothesis that underpins the theory of change
- **DOES NOT** often capture: complexity of change, multiple change pathways, interaction between expected results, assumptions, evidence supporting the hypothesis.



Development Hypothesis

Example from a real project in Jordan:

- ***"If youth skills in service delivery are improved through the vocational foundational training and if youth complete the on-the-job training then youth employment in the quick service restaurants sector will be improved."***

What is the difference?

Theory of Change	Logic Model
Maps out the change process	Maps out an intervention within a change process
Critical thinking , room for complexity and deep questioning	Linear representation of change , simplifies reality (snapshot of a TOC)
Explanatory : articulates and explains the what, how, and why of an intended change process, and the contribution of the initiative	Descriptive: states only what is thought will happen/'will' be achieved.
Pathways of change, 'unlimited' and parallel result chains or webs, feedback mechanisms	Three results levels (output, outcome, impact) (result, sub-result, sub-sub result)
Ample attention for the plausibility of assumed causal relations	Suggests causal relations between results levels without analysing and explaining these
Articulates assumptions underlying the strategic thinking of the design of a policy, programme or project	Focuses on assumptions about external conditions

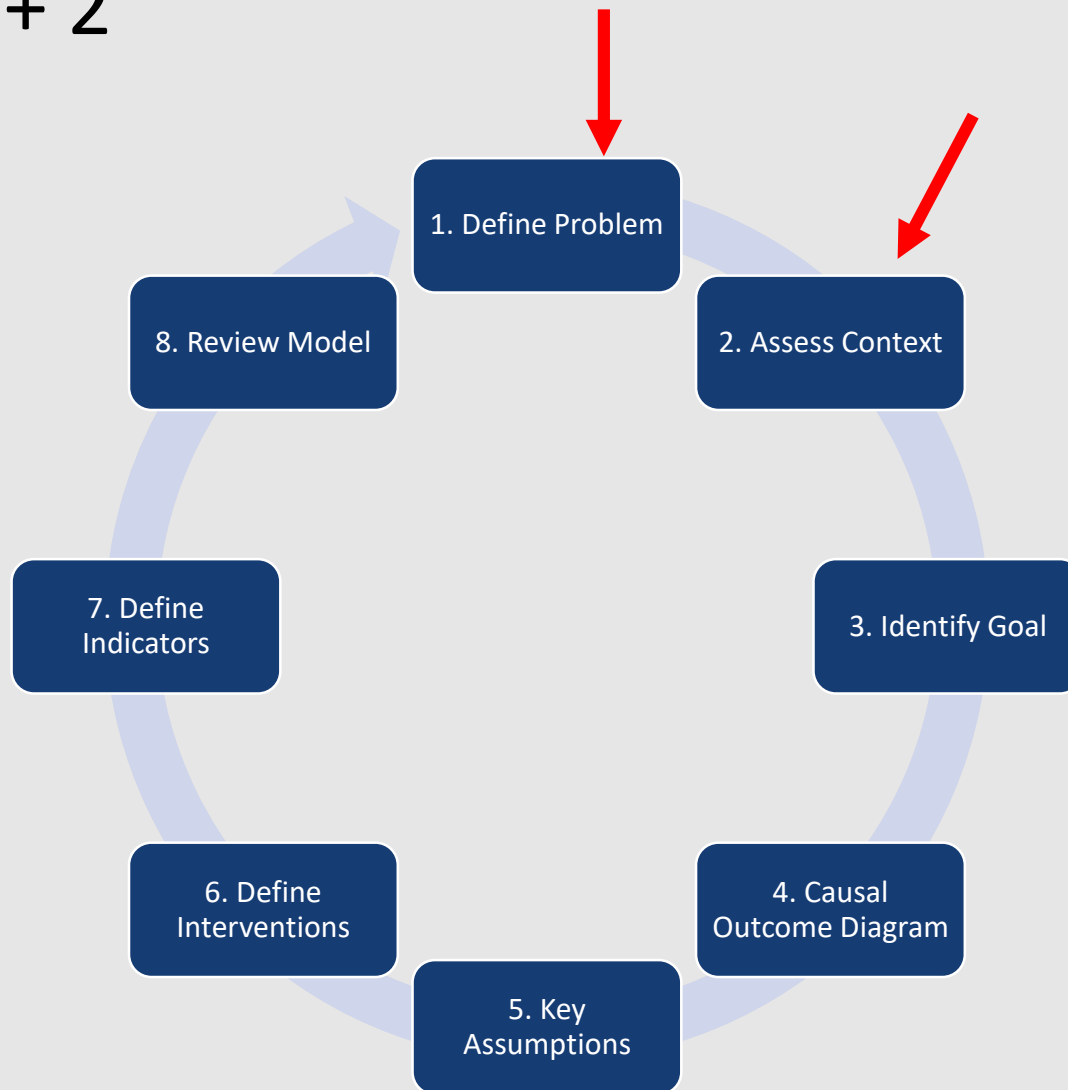
Project Design Process



Approach to Theories of Change

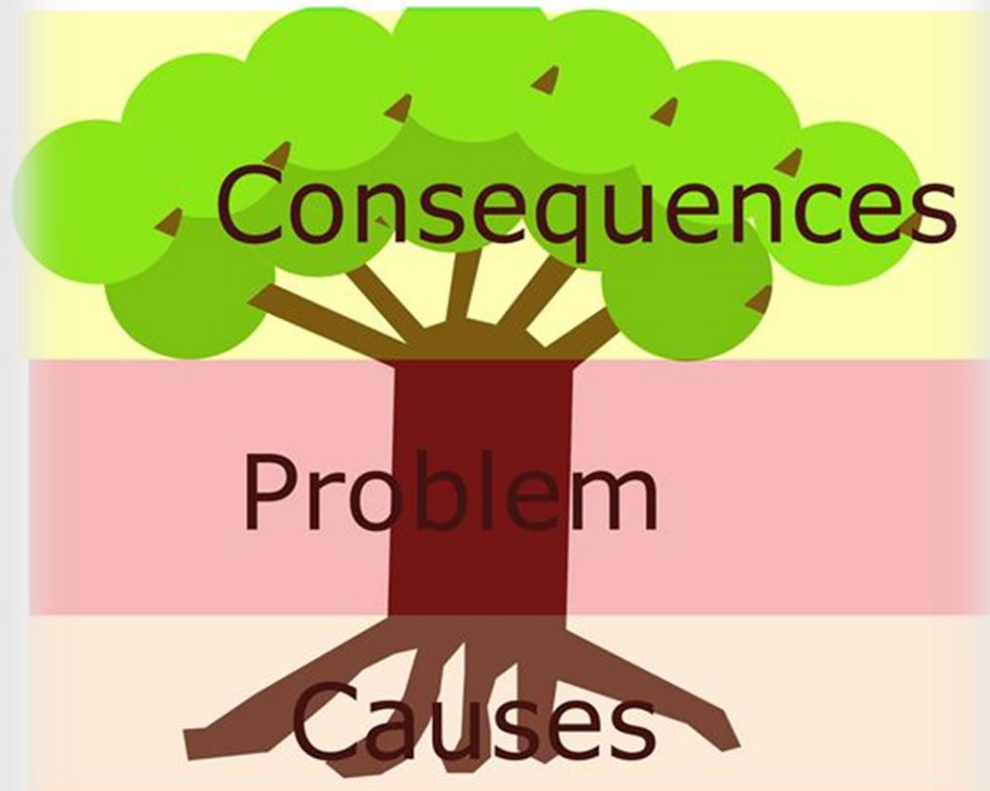
- **TOCs are models to be tested**
 - TOCs are built on our knowledge, beliefs, evidence and assumptions about how change happens
 - **Change can be approached in many ways – there may be multiple effective models**
 - All models have limitations and may not accurately reflect all the nuances of a system in reality
- TOC Testing occurs during implementation and requires regular reflection, review, and revision

Step 1 + 2



Step 1: Define the Problem

- Identify the core problem
- Explore issues that exist within the parameters of the project interest area and work backward to identify the core problem
- Throughout the process, ask: “What causes that?”
- There is often more than one cause to a problem
- TOC Pause & Reflect Sessions/Reviews: review and validate core problem



Step 2: Assess the Context

- The anchor upon which the theory of change is built
- Examine root causes of the core problem and circumstances or conditions that may affect the situation, root causes, and core problem
- **Review the evidence!**
 - Evaluations
 - Monitoring Data
 - Research and other studies
 - What is new since the project was designed?
- Consider the whole system in which the core problem exists
- Proposal vs. Implementation Start-up Phases
 - Short proposal time periods limit the level of data collection
 - Implementation period often requires an update/more in-depth analysis of the context

Context Analysis Tools

- Context Analysis: Social, political, economic, ecological, other dimensions
 - Problem tree, fish bone analysis, situation models, force field analyses, 5Rs approach
- Stakeholder and actor analysis
- Political Economy Analysis
- Behavior Change Barrier Analysis
- Power and gender dynamics, drivers of change, opportunities for change



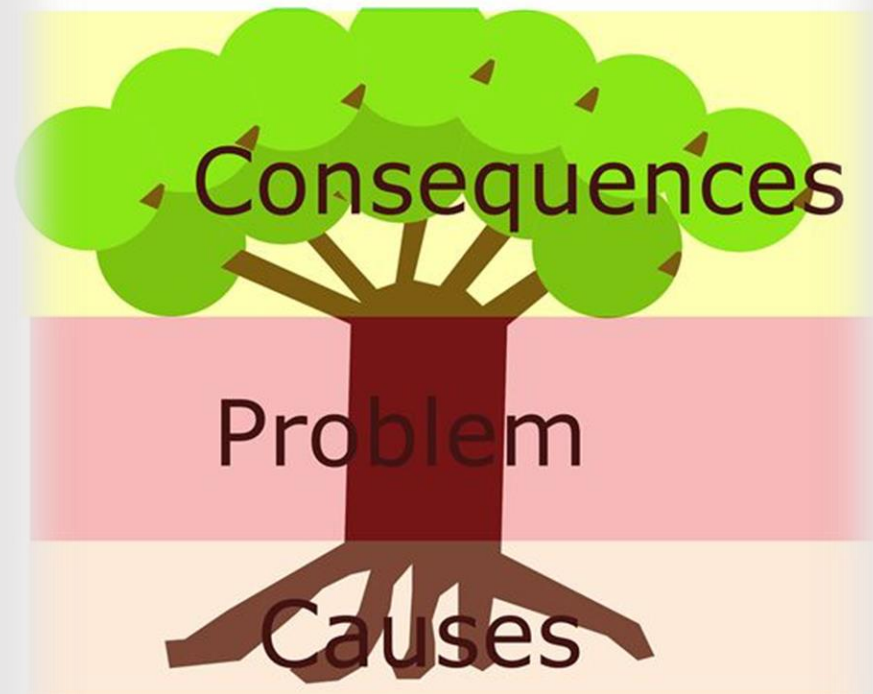
CONTEXT

Problem & Context Analysis: Success Factors

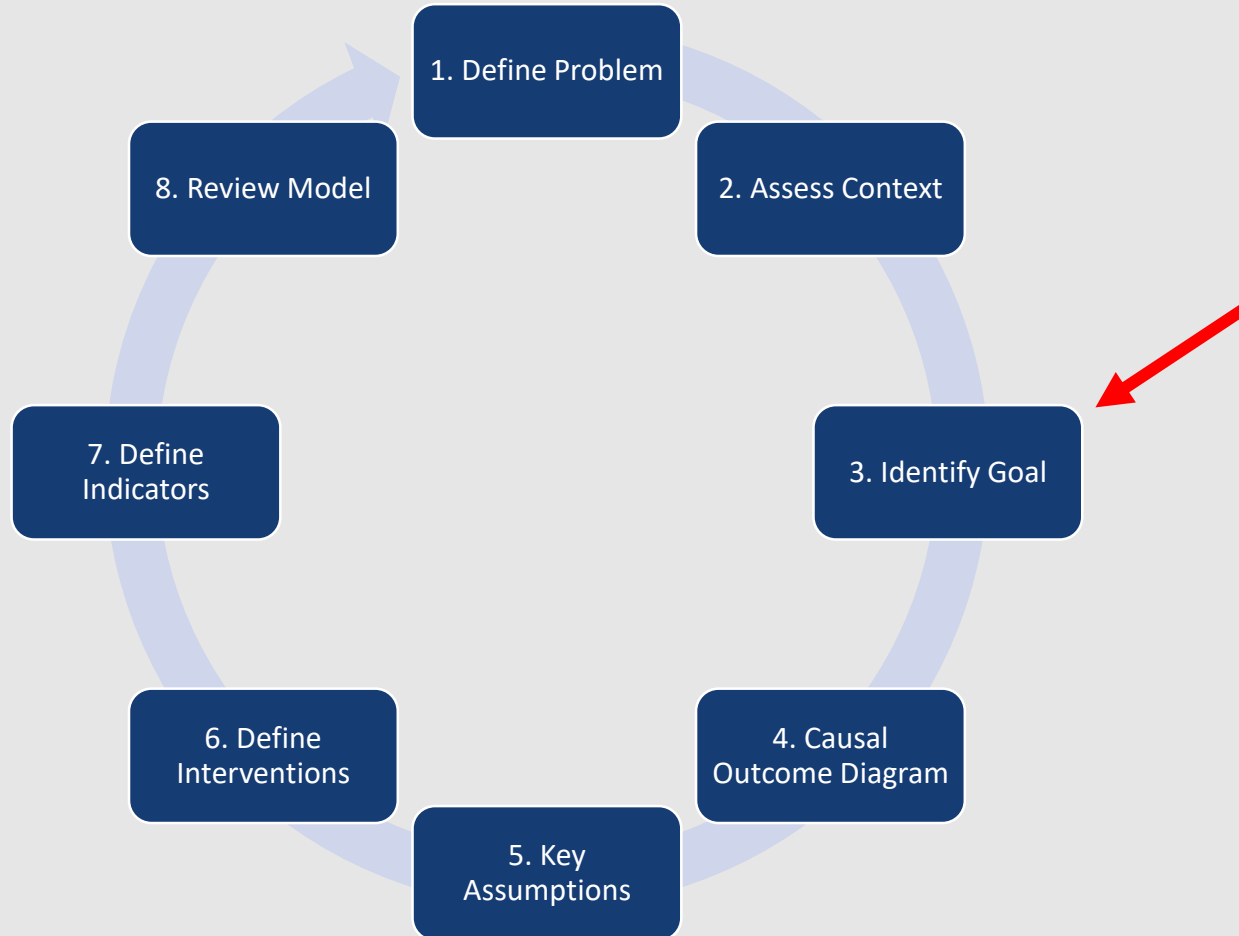
- Plan sufficient time for data collection and analysis
- Consult stakeholders
 - Integrate stakeholder perceptions and local knowledge
- Integrate gender, social inclusion, and power dynamics
- Triangulate data sources
- Be as thorough as possible within time constraints
- Document the unknowns
- Plan for utilization

Group Exercise 1: Problem & Context Analysis

- Explore issues that exist within the parameters of your project interest area and work backward to identify the core problem.
- Throughout the process, ask: “What causes that?”
- **CREATE A PROBLEM TREE!**
- Identify what tools you would use to analyze the context.
- **TIME: 30 Minutes**



Step 3: Identify the Goal



Step 3: Identify the Goal

- Convert the problem statement into a goal
- What is the highest level desired change?
- why and for whom?
 - **Describes what, who, where, but now the how.**
 - Should be ambitious but achievable in the project timeframe.

A goal statement must be written in the form of an outcome: a changed situation that can be described and measured.

Group Exercise 3: Goal Statement

- What would success look like for your proposed project?
- What would success look like at the end your project?
- **TIME: 30 Minutes**

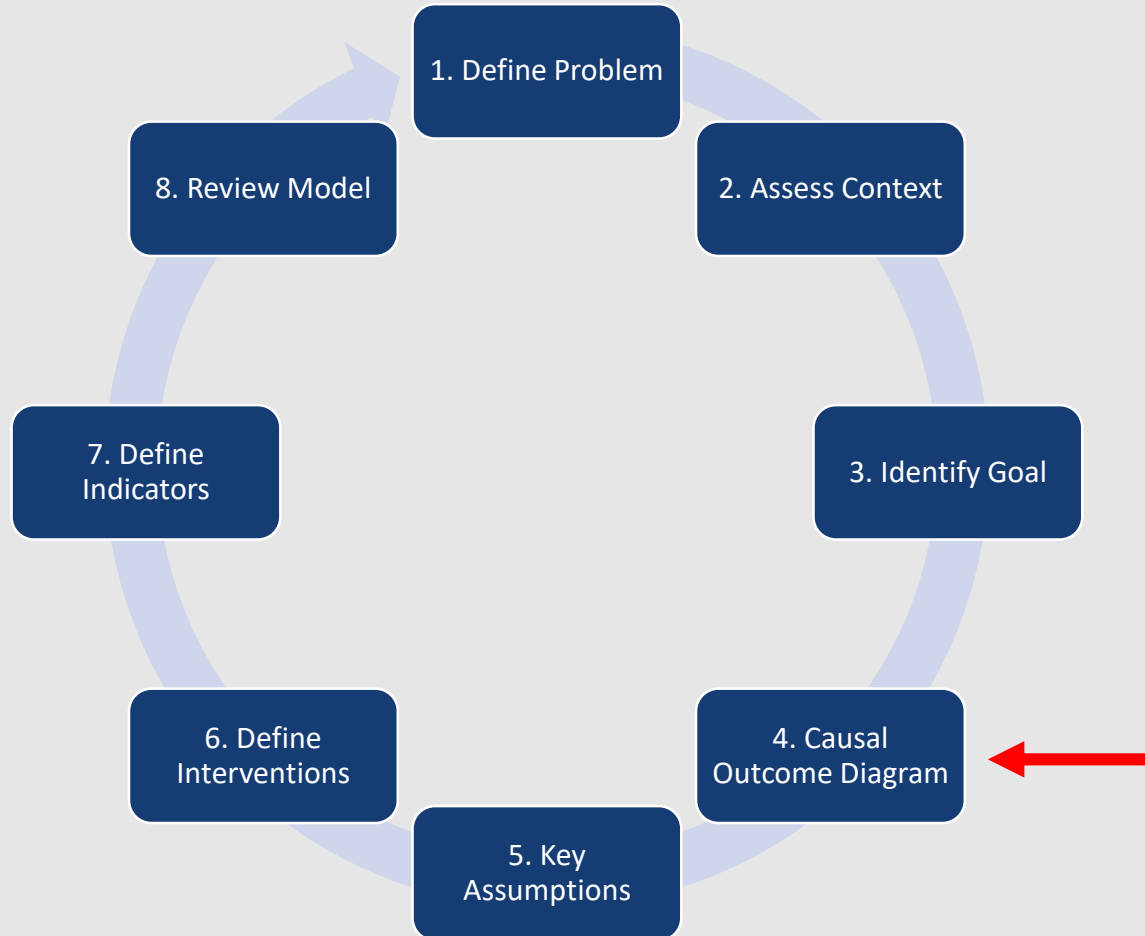


DAY 1 Closing

Overview- Day 2

- Causality within your project elements
- Cause-and-effect in designing projects
- Mapping pathways of change
- Assumptions and Risks
- Gathering Evidence

Step 4: Causal Outcome Diagram



How Change Happens

- Who creates change?
 - Change Actors
 - Institutions (government perhaps?)
- What are some critical aspects to consider?
 - Norms and culture
 - Power dynamics
 - Existing systems

Step 4: Develop a Causal Outcomes Diagram

Identify Domains of Change

Goal: Under-privileged youth employment in service delivery sector improved

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graph TD; Goal[Goal: Under-privileged youth employment in service delivery sector improved] --- R1[R1: Youth vocational skills in service delivery improved]; R1 --- SubR1[Sub R1: Awareness of sector vocational training opportunities increased];
```

R1: Youth vocational skills in service delivery improved

Sub R1: Awareness of sector vocational training opportunities increased

Hypotheses and Logical Chains

Projects are Based on Hypotheses

Almost every project design contains definite ideas about **causal** relationships

If A, then B

- *IF we train teachers, THEN children will learn more*
- *IF we vaccinate children, THEN there will be fewer deaths*
- *IF we monitor elections, THEN there will be fewer irregularities*

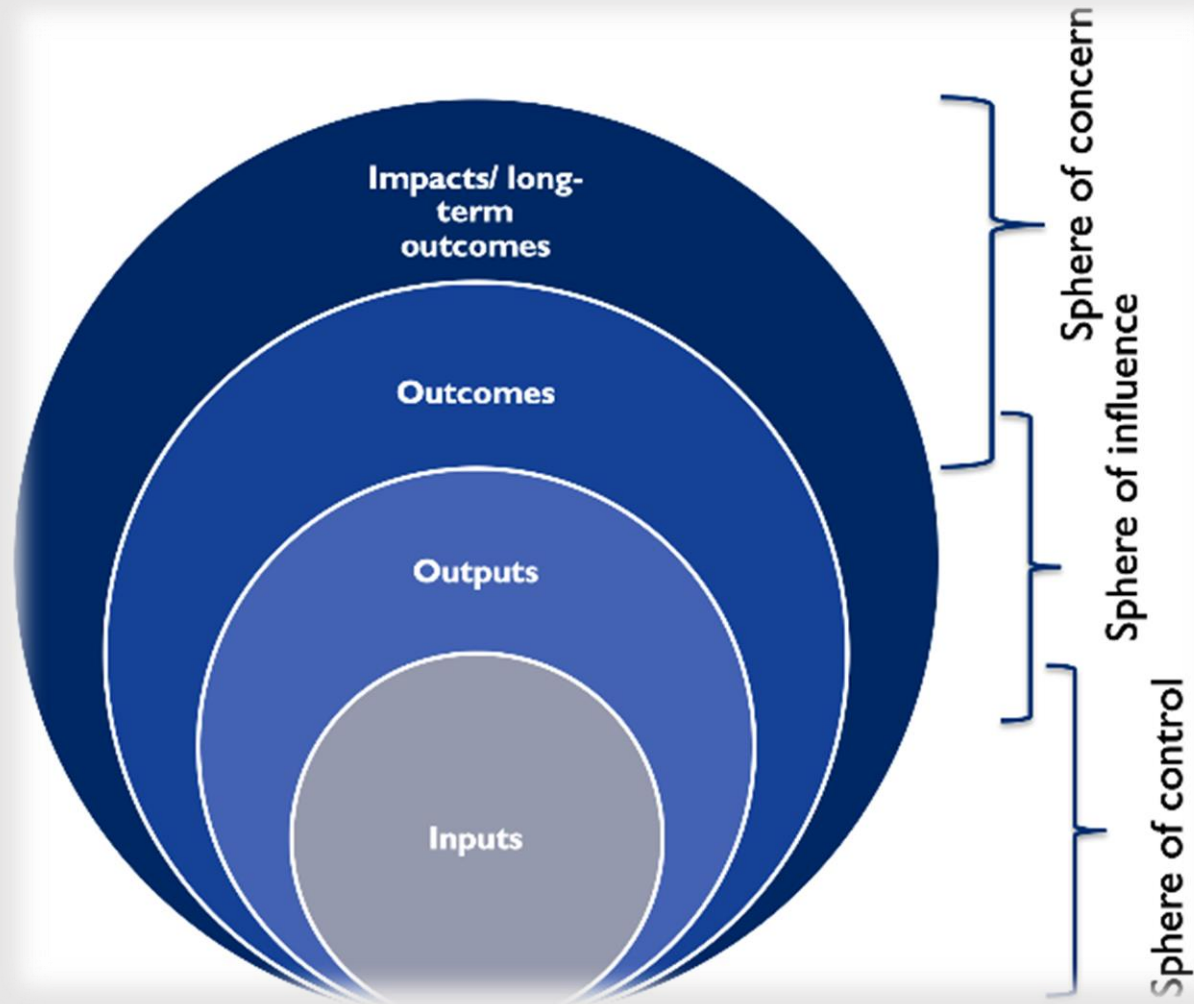
Identifying Domains of Change

- Key Questions:
 - Who and what needs to change in order to achieve the goal?
 - Where does the change need to happen and in which way for the change to become possible?
- Convert key root problems to domains of change

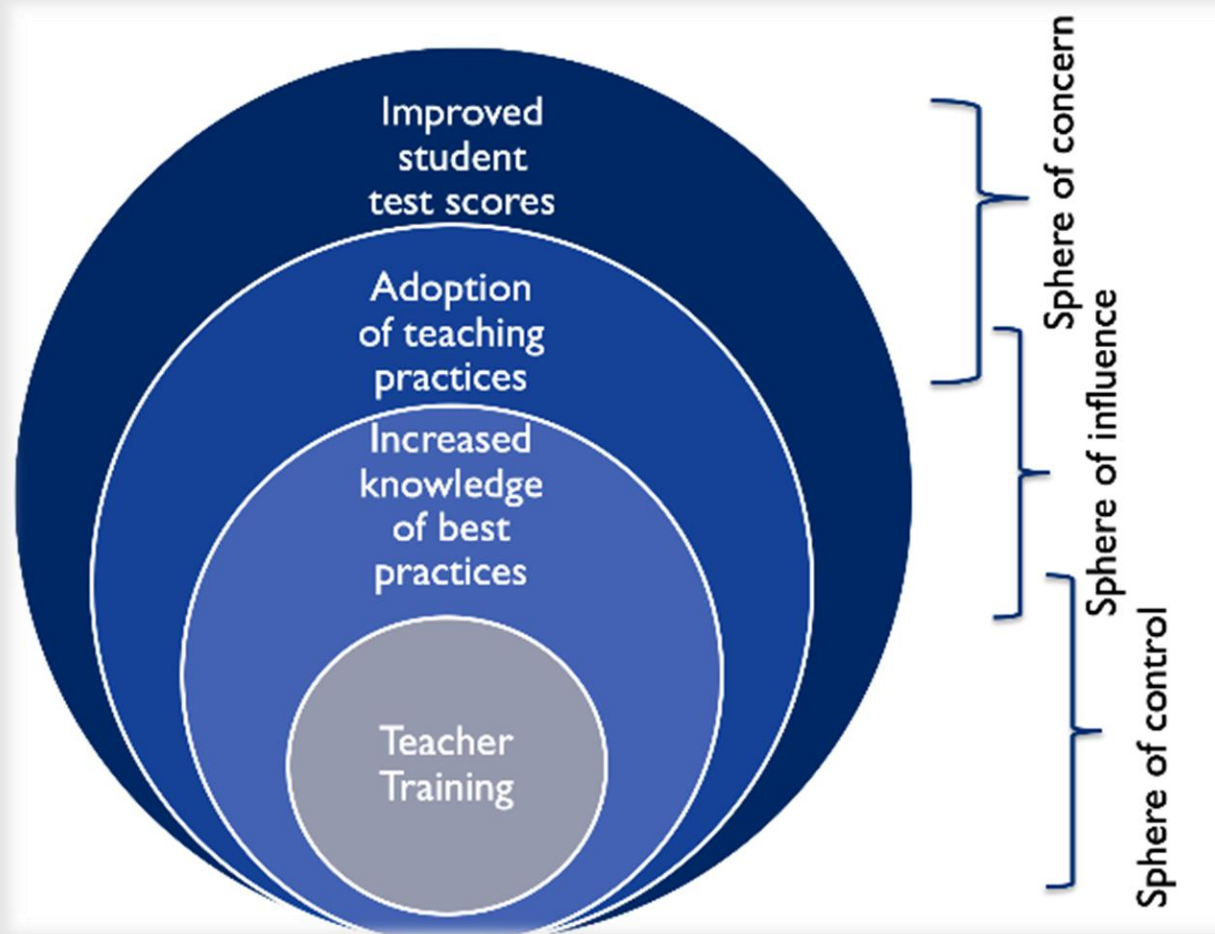
Example		
Key problems	converted to...	Domain of change
Limited ability to recover from shock		Improved ability to recover from shock
Low crop production		Increased crop production
Inequitable and limited income		Increased equitable income.

(Starr and Fornoff, 2016)

Limits to Influence



Limits to Influence



Group Exercise 4: Domains of Change

- Determine the key domains of change for your selected project
- Select no more than 4 domains of change
- **TIME: 30 Minutes**

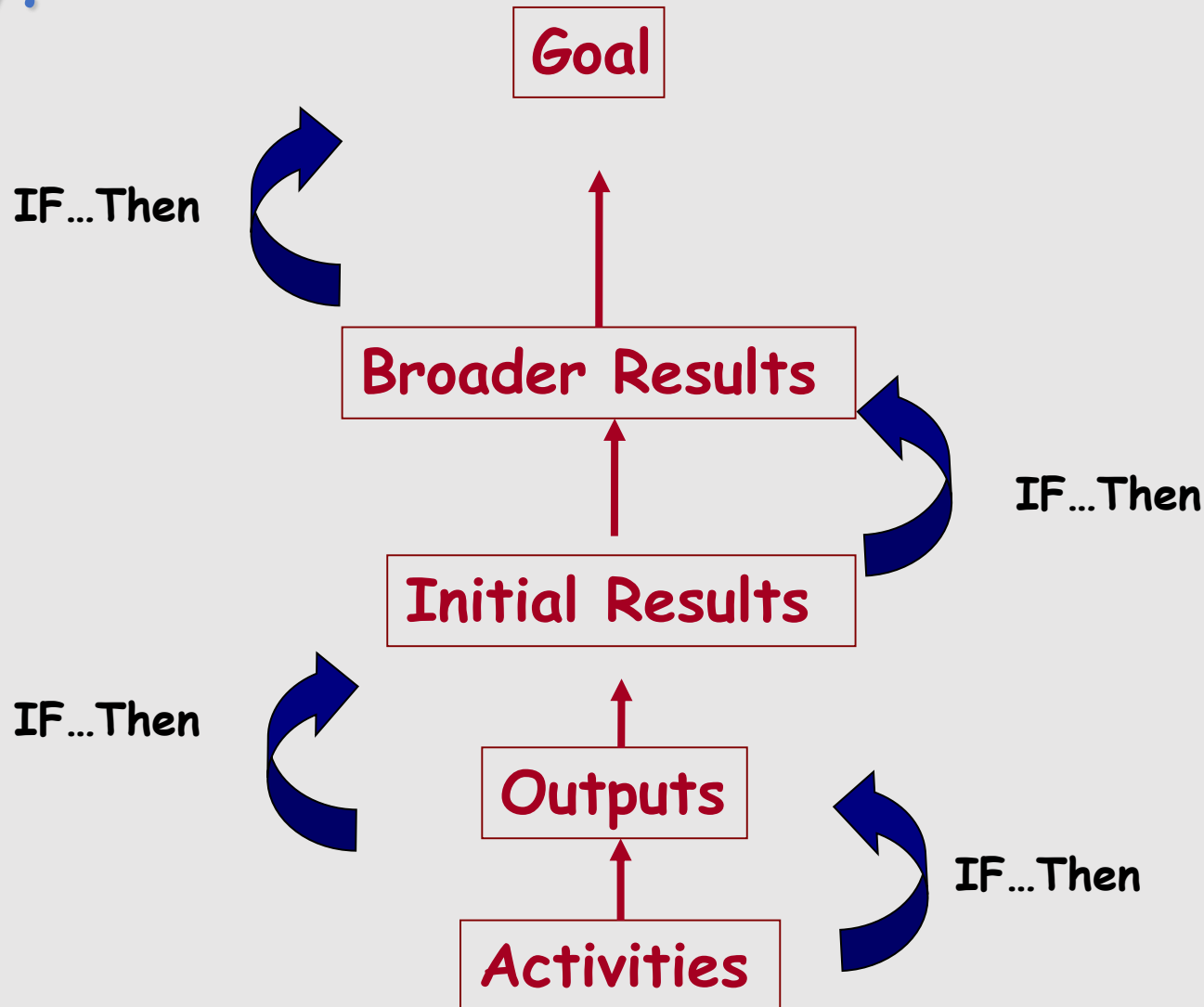


Step 4: Develop a Causal Outcomes Diagram

- Map pathways of change
 - sequence in which outcomes are expected to occur in order to accomplish the domain of change and ultimately reach the project goal
 - outcomes on lower levels are preconditions for outcomes at the next higher level
- The step-by-step solutions that make up pathways of change are commonly referred to as *outcomes or results*.
- Work backwards from the goal (the long-term change)
 - What needs to happen for the desired change to occur?
 - What needs to be in place for the desired change to occur?
 - How do we think the change process may evolve over time?

A Logic Model Shows Why and How

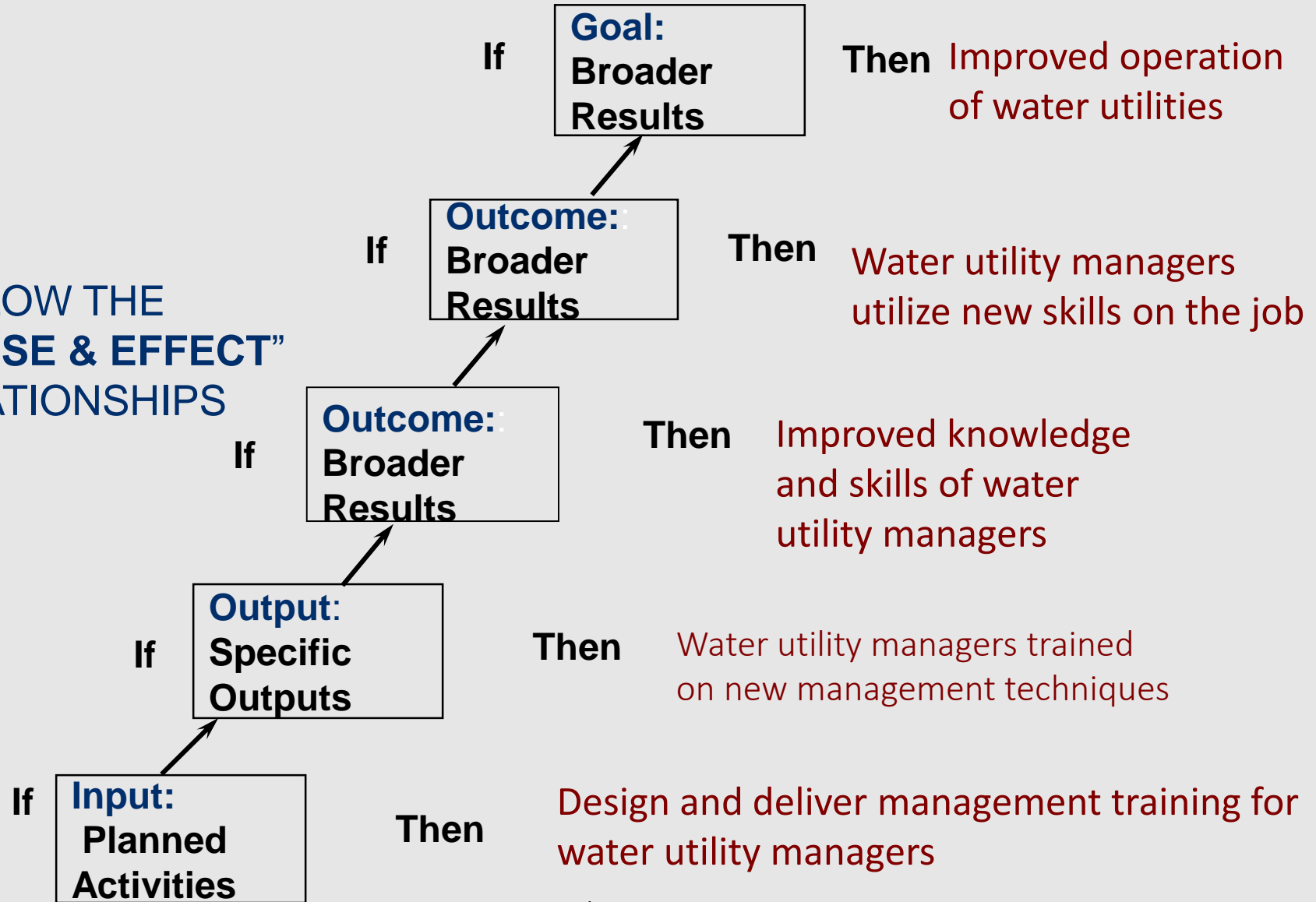
Why?



How?

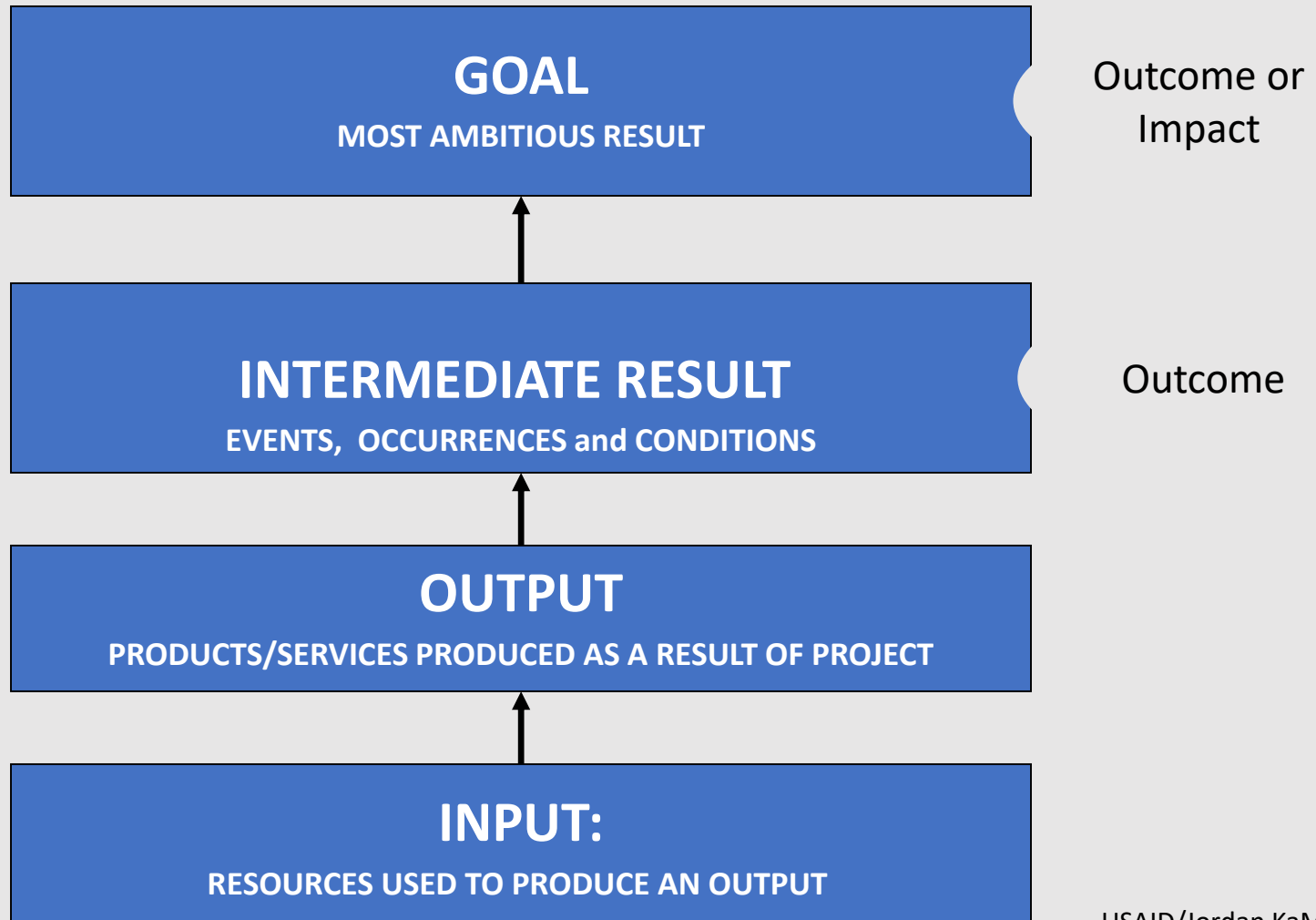
Causal Thinking

FOLLOW THE
“CAUSE & EFFECT”
RELATIONSHIPS



Hypotheses and Logical Chains

- Four Basic Building Blocks for Planning



Well-designed results statements are...

Statements of results, not processes:

What will have been achieved, not what processes will be undertaken or completed.

NOT THIS:

- Promote the adoption of new workplace safety laws.

BUT THIS:

- New workplace safety laws adopted

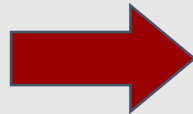
We frame them as “Done Deals” to help envision what success will look like, to focus on the result more than the process.

This also helps set us up to select appropriate measures.

Activities & Processes vs. Results

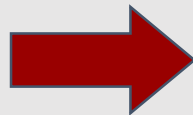
- Beware of confusing interventions with their desired end-result

Training



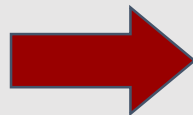
Increased skills

**Institutional
development**



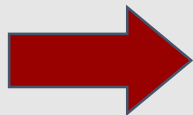
Improved services

**Dissemination
of information**



**Better informed
target group**

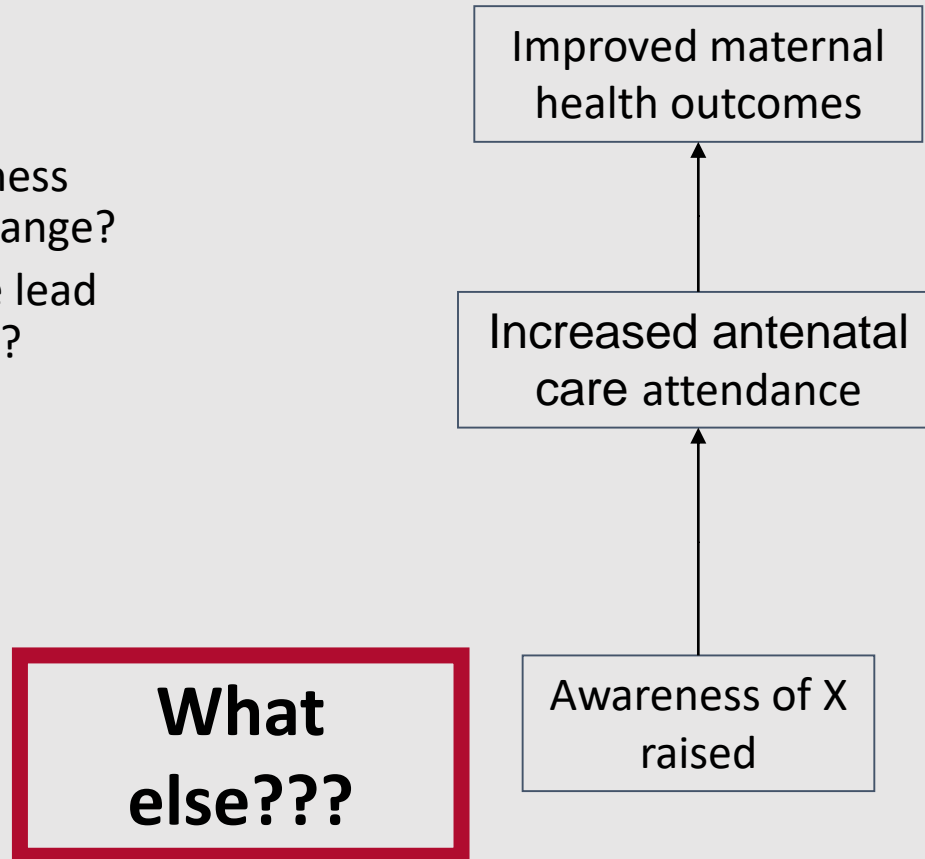
**Expert technical
assistance**



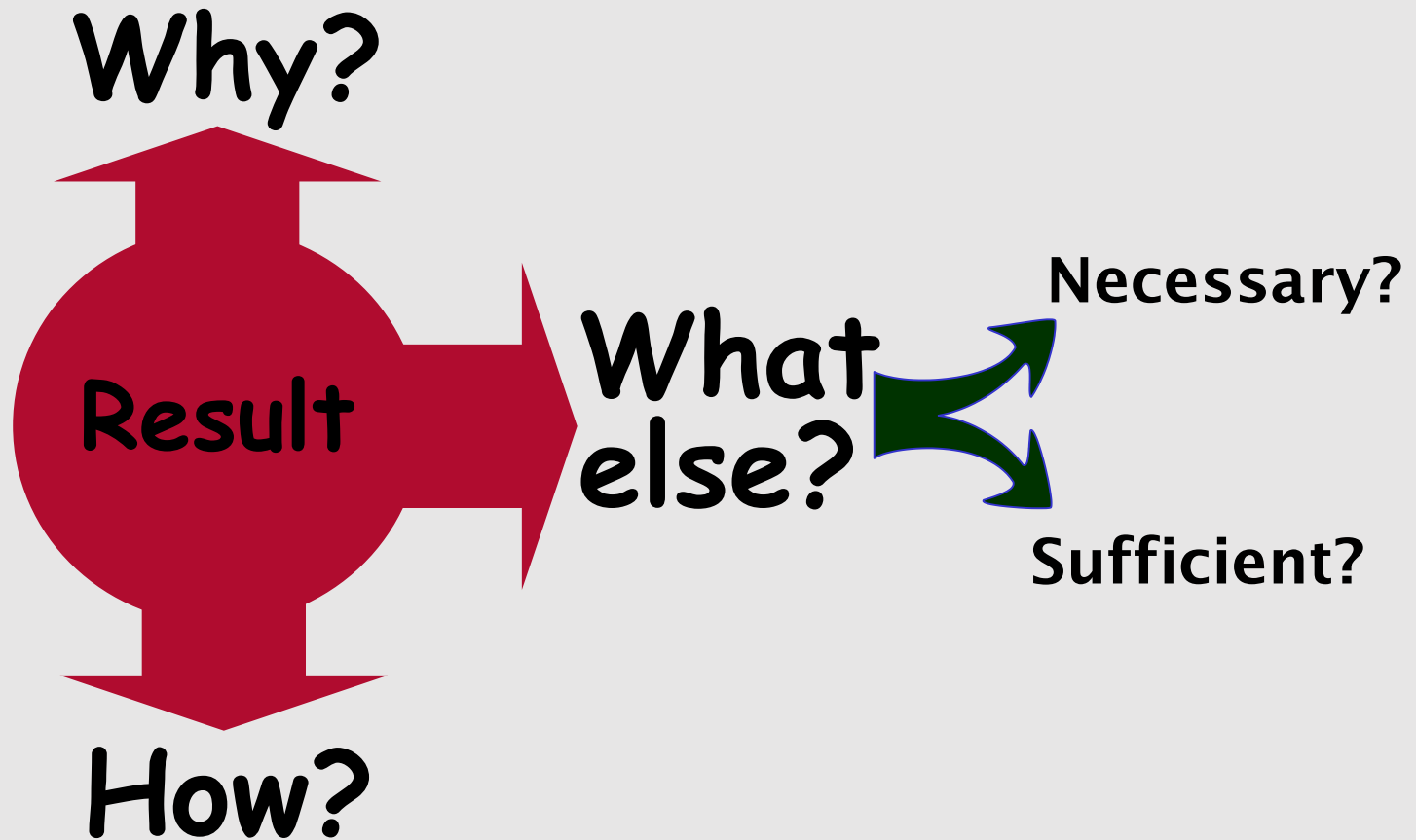
**Improved policy and
regulatory framework**

Large Causal Gaps

- Common example-behavior change:
 - Does raised awareness lead to behavior change?
 - Does training alone lead to behavior change?



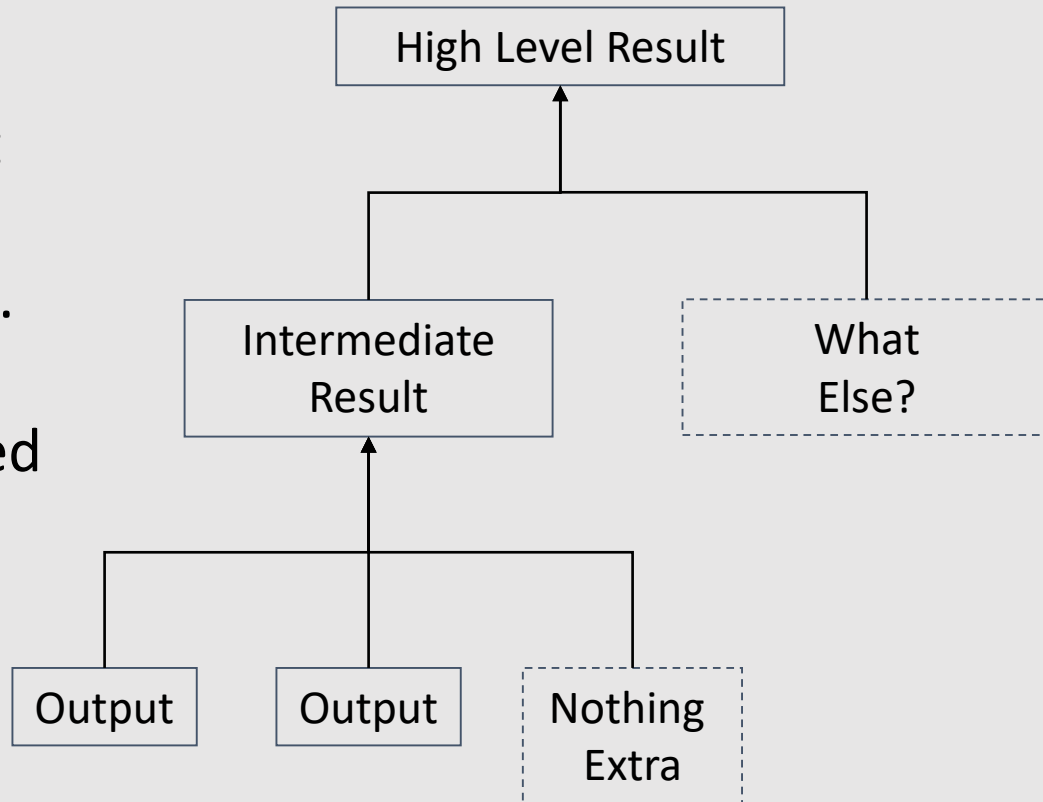
Necessary and Sufficient



Necessary and Sufficient

All the results
SUFFICIENT to
achieve results at
the next level
must be included.

All results included
must be
NECESSARY.



Well designed results statements are...

Uni-level:

There are no “if-then” statements embedded in a single objective

- **NOT THIS:** Improved student performance through more effective classroom instruction
- **BUT THIS:** Two separate objectives: (1) Improved student performance and, at a “lower” level (2) More effective classroom instruction

AVOID: “through...,” “in order to...,” “as a result of...,” “so as to...,” and other such words and phrases in objective statements.

Well designed results statements are...

Uni-Dimensional:

They have one element per result statement, unless the elements are closely related and both are supported by what comes below in the RF

- NOT THIS: New workplace safety policies adopted and capacity of government strengthened
- BUT THIS: Two separate objectives: (1) New workplace safety policies adopted and (2) Capacity of government strengthened

MIGHT BE ACCEPTABLE: Increased quality and coverage of social protection services

MIGHT BE ACCEPTABLE: Improved medical and administrative skills among health clinic workers

Group Exercise 4.1: Refine Your Domains

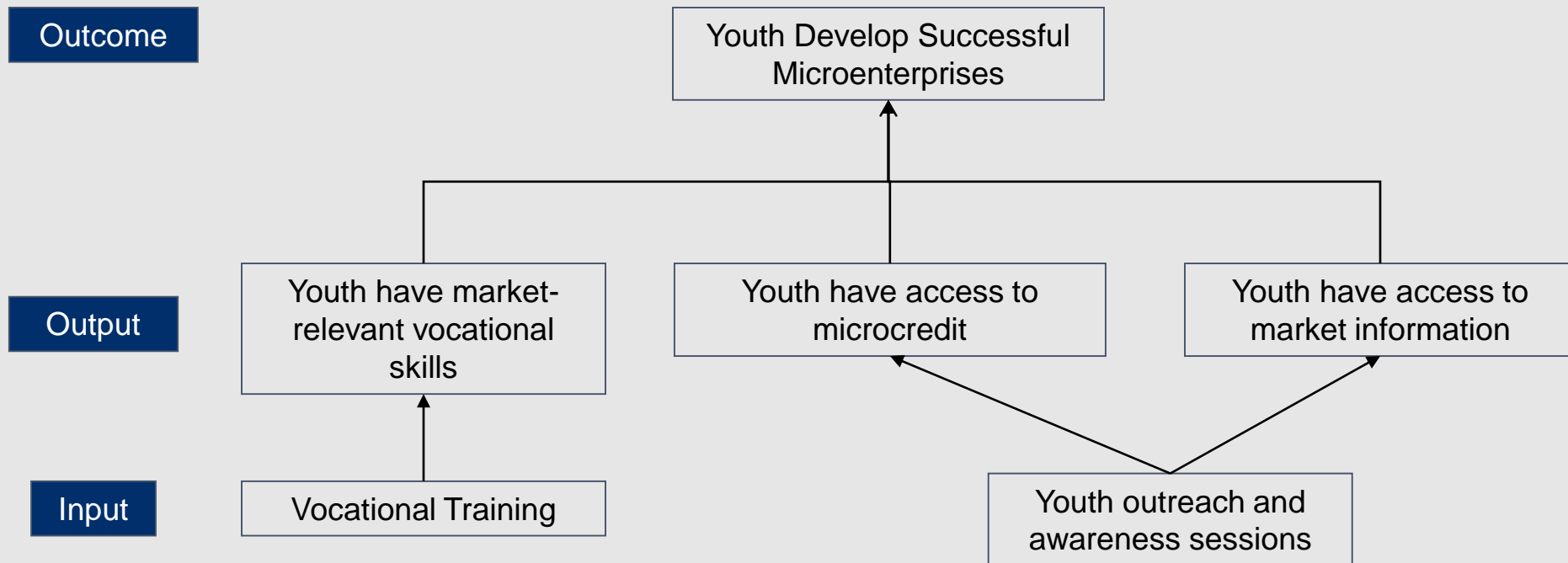
- Refine your domains of change based on what was discussed.
- **TIME: 10 Minutes**



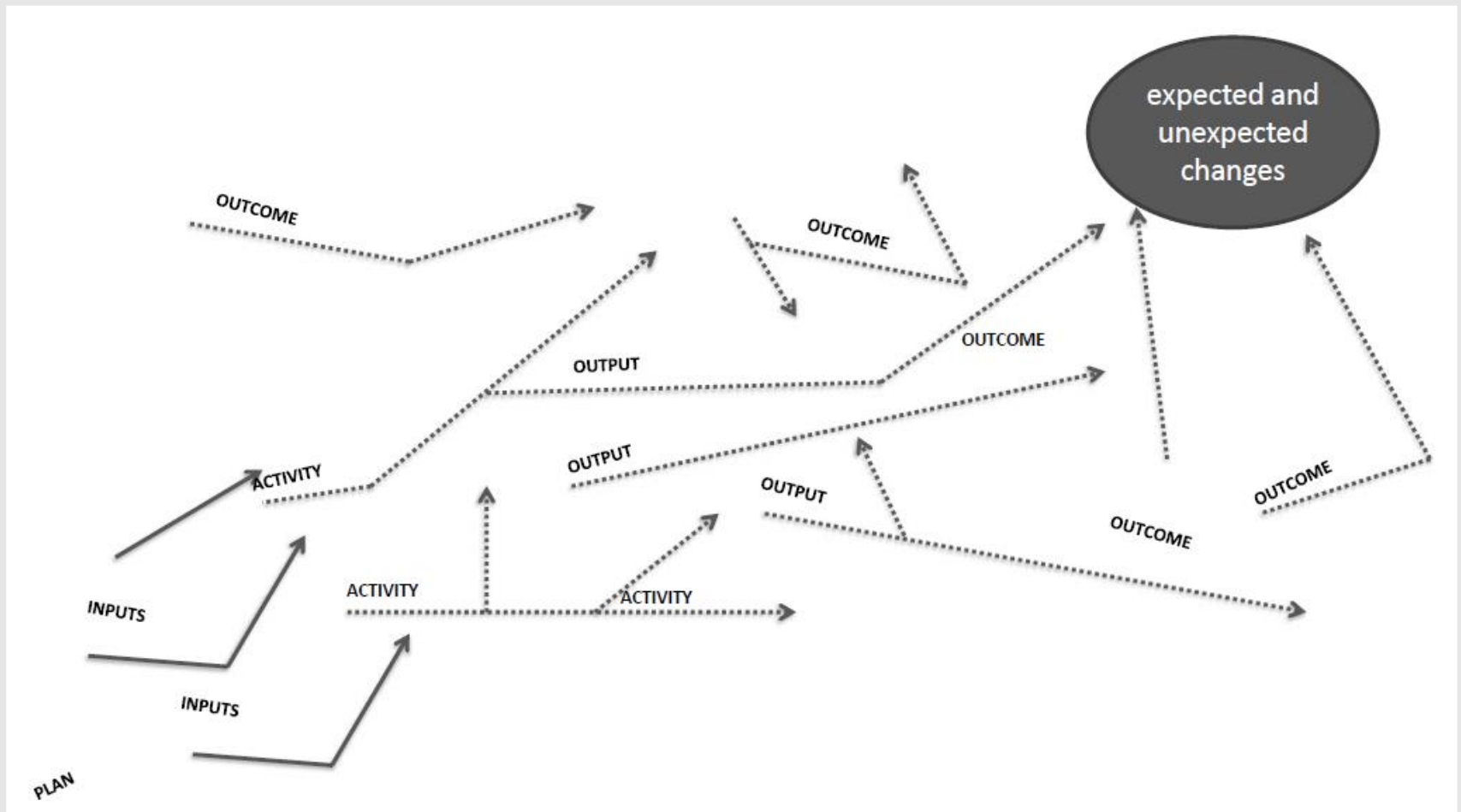
Causality in Project Design



What we plan for...

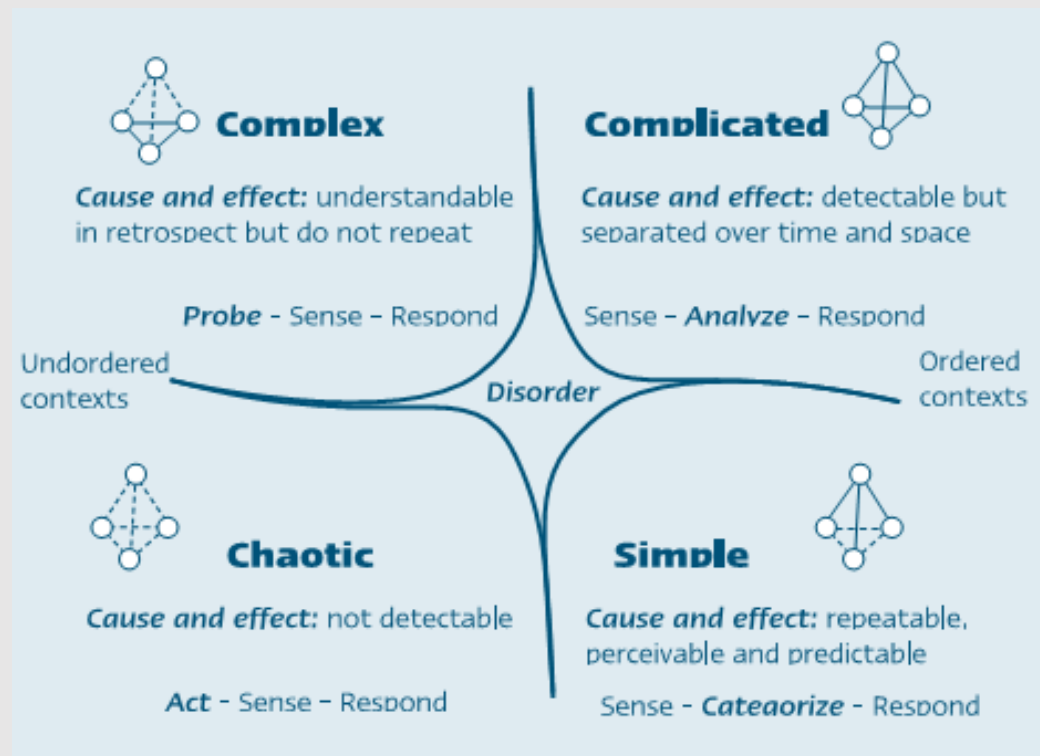


What really happens...

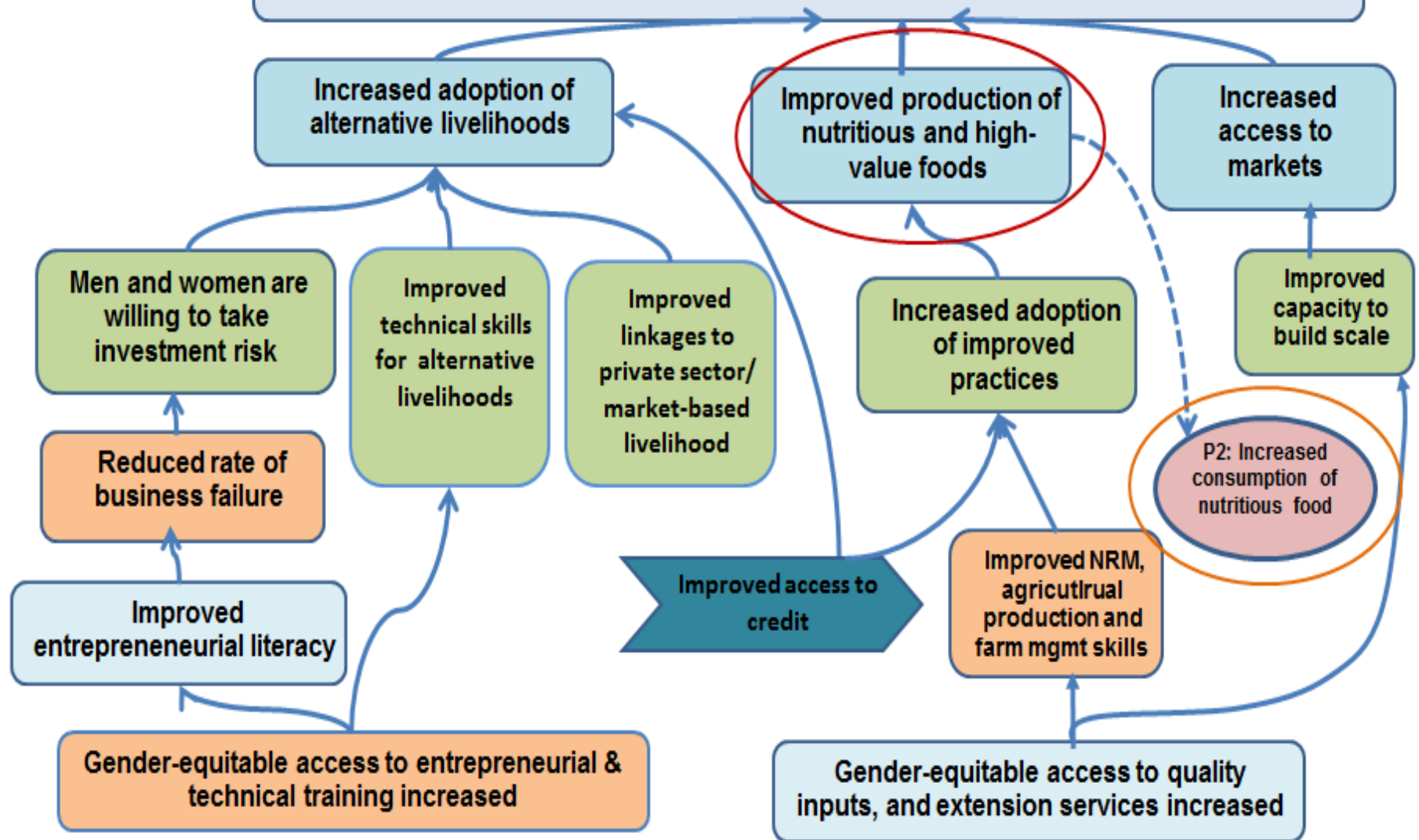


Complexity

- Complexity: even experts are uncertain about the best way to achieve results
 - Diverse elements interact with each other in unanticipated ways to create a new reality
 - Complex aspects cannot be known or predicted ahead of time
 - Cause-and effect relationships only emerge retrospectively
- Projects and their environments can have aspects of all (complex, simple, complicated)
- Determining the level of complexity:
 - What is the degree of certainty about how to solve the problem?
 - What is the degree of agreement among stakeholders about how to solve the problem?



Purpose 1: Gender-equitable diverse income increased



Addressing Complexity

- Prioritize a limited number of domains of change
- Focus on your project Design and core intents behind the project design
- Consider limits to your areas of concern, influence, and control in your causal diagram
- Update your TOC hypotheses throughout implementation
 - The initial hypothesis must fulfill the requirements of program logic and be *plausibly* necessary and sufficient

Explore and Understand Complexity

- Acknowledge and embrace complexity
 - Don't ignore it or simplify it away
- Utilize tools to explore and deepen your understanding:
 - Analyses: Political Economy Analysis, Social Network Analysis, Power and gender lenses
 - Outcome Mapping: planning tool focusing on behavior changes, core stakeholders, sphere of control, sphere of influence
 - Monitoring indicators: Context Indicators, Sentinel Indicators

Complexity Aware Monitoring (CAM)

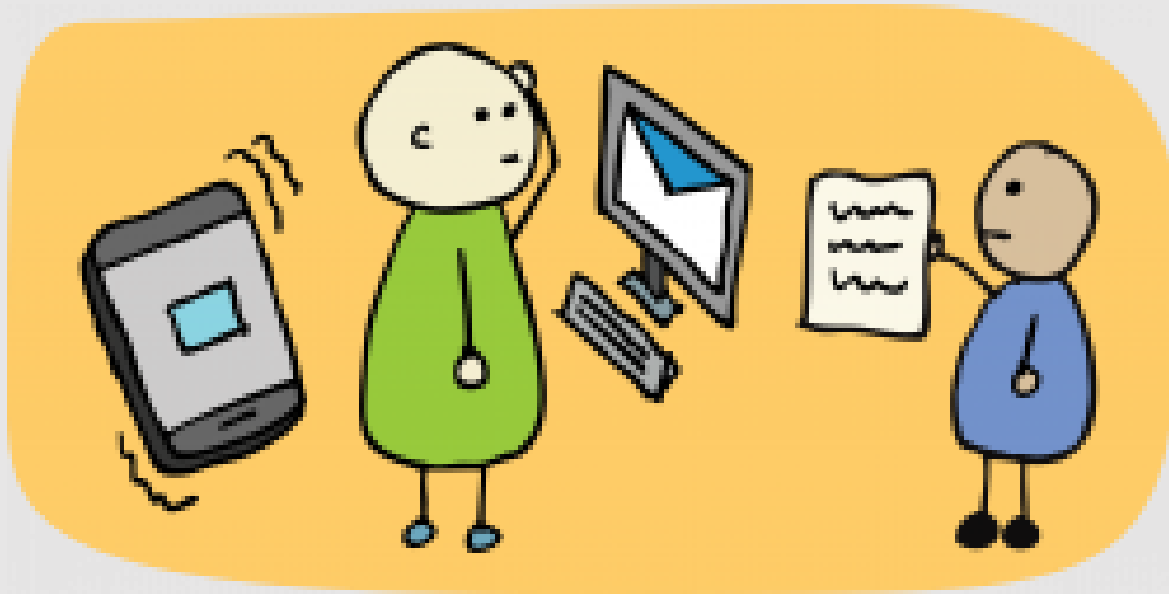
- Principles of Complexity Aware Monitoring
 - Synchronize monitoring with the pace of change or purpose for data
 - Early warning, at time of result, after result occurs
 - Attend to performance monitoring's three blind spots
 - Consider relationships, perspectives, and boundaries

- **ENSURE CAM TOOLS ARE FIT-FOR-PURPOSE**

Recommended CAM Tools

- Context Indicators
- Stakeholder feedback
- Process monitoring of impacts
- Most Significant Change
- Outcome Harvesting

Integrating Evidence



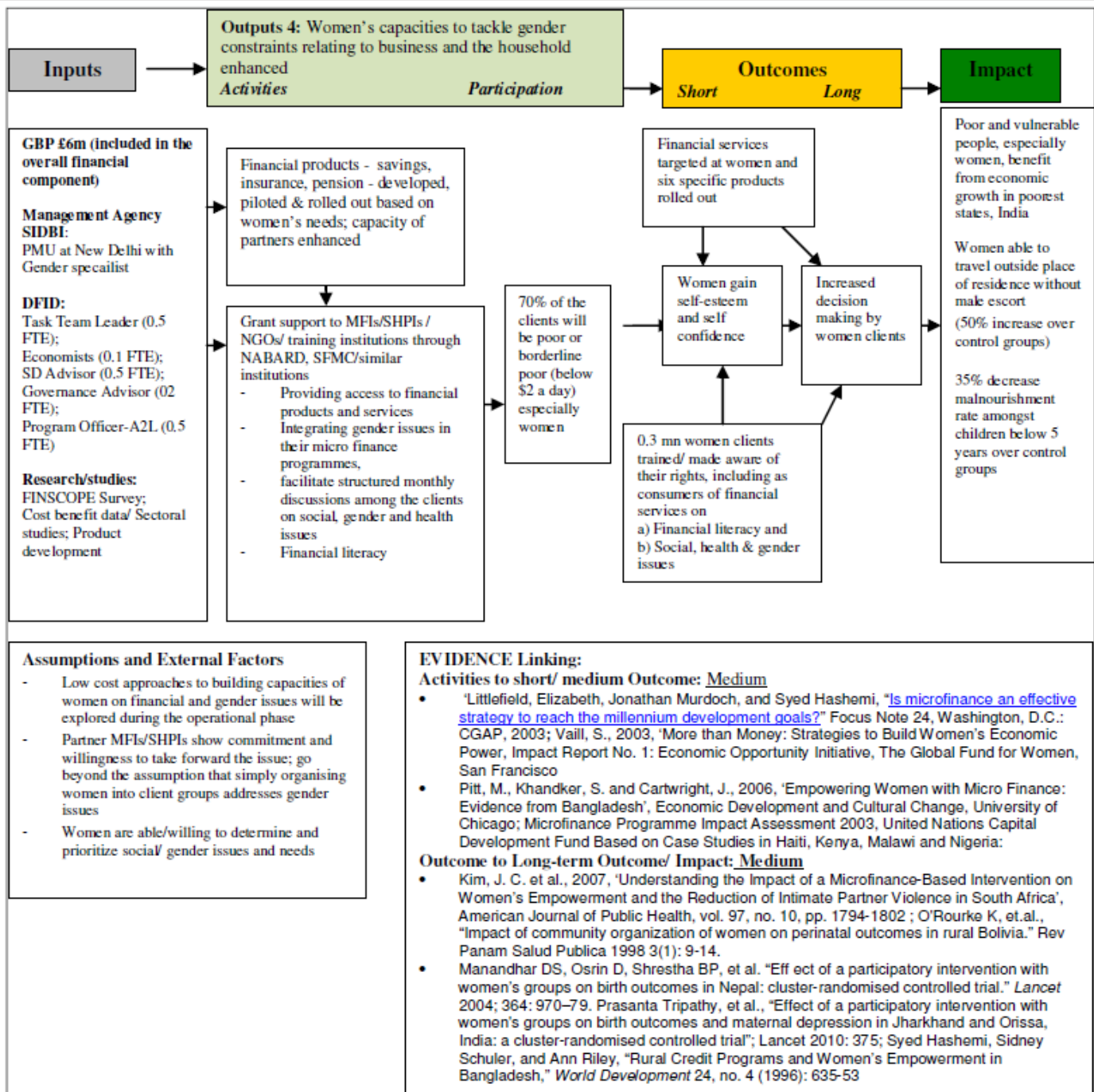
Integrating Evidence

- A common element missing from most theories of change
- Why is it important?
 - Ground your theory of change
 - Are there theories already developed based on empirical data?
- Check and challenge assumptions
- Inform causal logic and implementation
- Help steer clear of implementation models that do not work
- Help projects learn from rigorous research and not “re-invent the wheel”

Integrating Evidence

- Where to start?
 - Literature review
 - Development evidence clearing houses
 - Relevant academic journals
 - Existing sector-specific, evidenced-based theories of change
- How to integrate?
 - Cite in theory of change narrative
 - Visualize in TOC diagram or logic model

Integrating Evidence



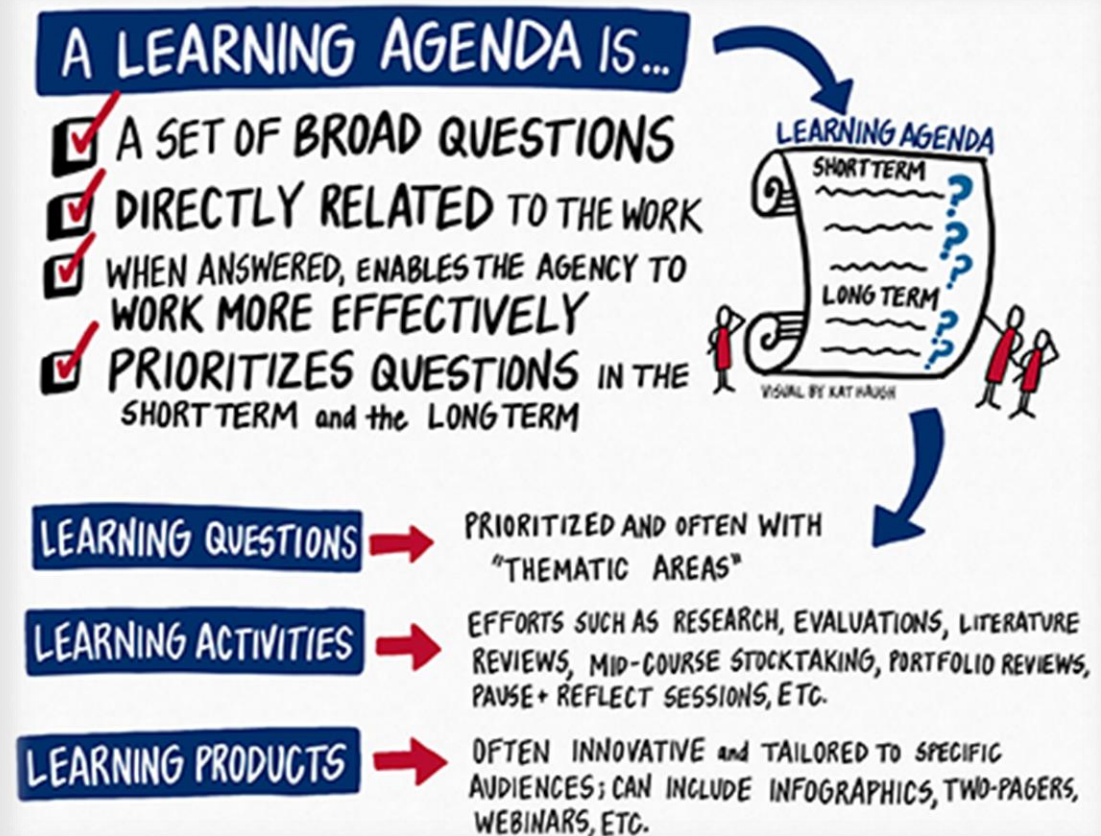
What If There Is No Evidence?

- Occurs particularly in complex environments, where even experts are unsure which interventions lead to desired results
- Be explicit about your assumptions in your causal logic diagram
- Focus learning questions on your assumptions
- Integrate formative research into your MEL Plan during implementation to test your hypotheses and assumptions
- Utilize performance monitoring data and other project-generated information to the extent possible
- Conduct regular TOC reviews incorporating learning questions, formative research, and other data generated to inform the project causal logic

Learning Agendas

Questions:

- Are you familiar with this term?
- What purpose do they serve?
- Have you or your organization engaged lately in a learning agenda review?



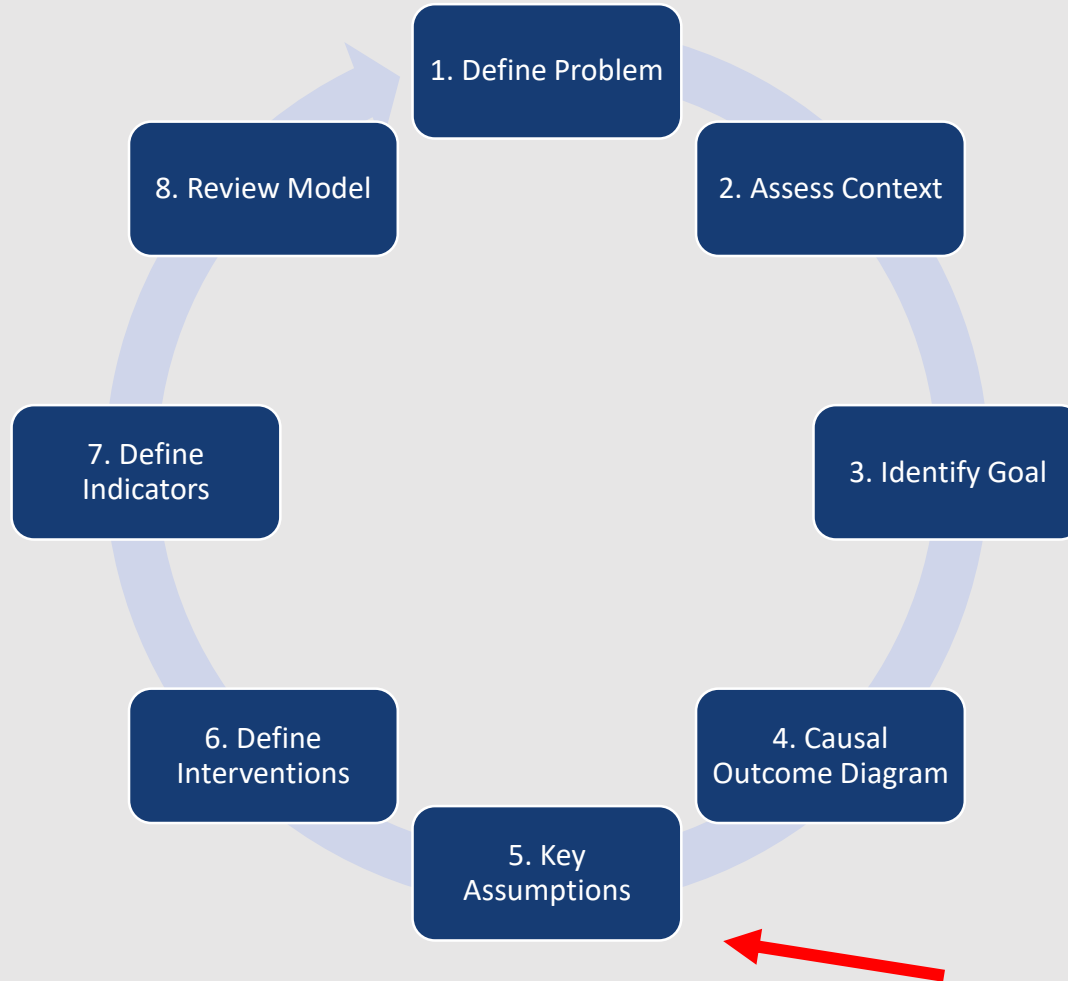
Group Work

- Re-visit causal logic diagram
 - Draw your diagram on a flip chart
 - What evidence, if any, supports your selected pathways?
 - Identify at least 1 piece of evidence to support your causal outcomes diagram
- **Time:** 30 minutes

Overview- Day 3

- Key Assumptions across project design
 - Contextual assumptions
 - Programmatic assumptions
 - Developing assumptions
- Adaptive Management
 - Managing M&E adaptively
 - Monitoring data in dynamic contexts
 - Periodic review of available data to assess adaptivity
- Data Collection
 - Data collection planning
 - Data collection approaches
 - Linking data collection to measuring programs effectiveness
 - Developing data collection tools and plans
- MEL Specialists
 - Role of M&E Specialists

Step 5: Key Assumptions



Step 5: Assumptions

- What are assumptions?
- Why do assumptions matter?

Why Assumptions Matter

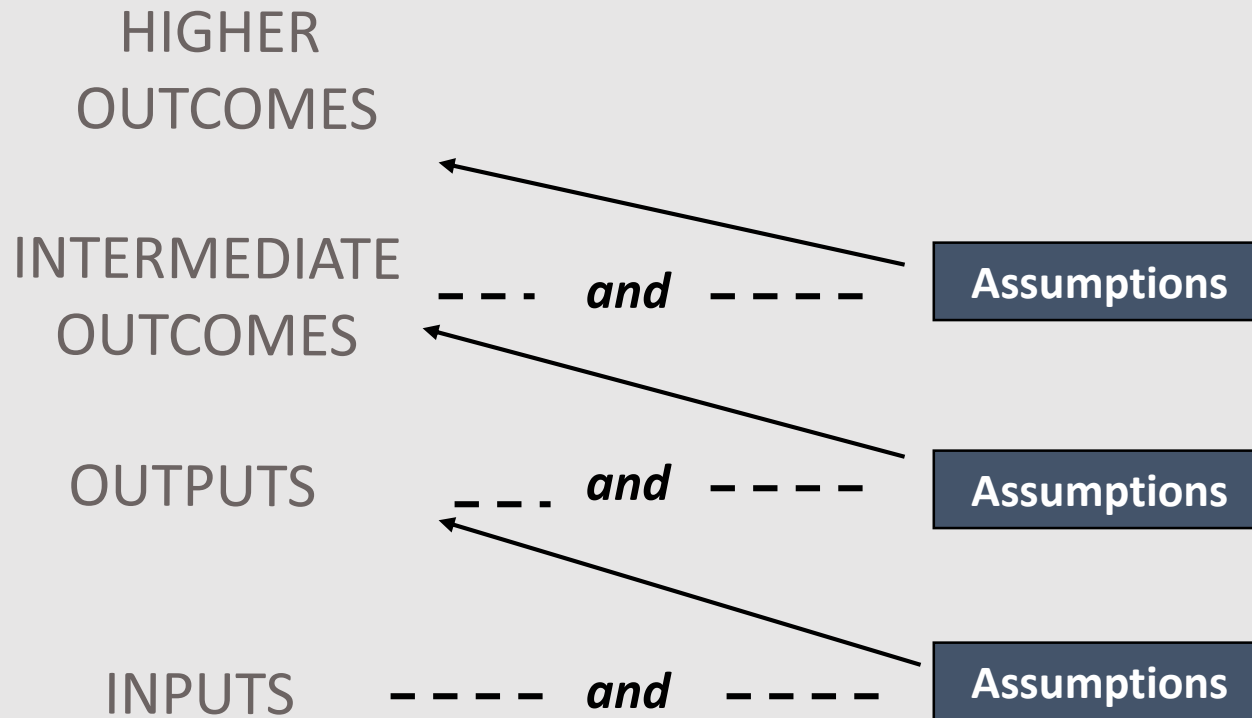
- Opens up thinking about change to generate strategic options
- Quality of the TOC process rests on “making assumptions explicit” (Vogel, 2012)
- Can improve project design
- Basis for adaptive management and risk management
- Guides learning
- Manages expectations of results
- Supports evaluations
- Supports efforts for scalability and sustainability

Assumptions

- “A proposition that is taken for granted, without reference to the facts.” (Vogel, 2012)
 - “Things we believe to be true”
- Deeply held ‘theories’: personal and professional values, beliefs, norms, and ideological perspectives on why change happens
 - Informs perspectives
 - Influences choices (e.g. strategic and management decisions)
- Ideas about the context
- Ideas about cause-effect relationships between interventions, outcomes and context
- A core element of theory of change thinking

“[Assumptions are] the crux of a theory of change process.” (Vogel, 2012)

How to Develop Assumptions



- Results combine with assumptions to lead to higher level results

How to Develop Assumptions

If we take X action, then Y
change will occur
BECAUSE...

What could go wrong that would mean
that even if outputs are achieved,
outcomes will not be realized?

What is valued
by our intended
beneficiaries?

What things are we depending on happening in order for our logic to succeed?

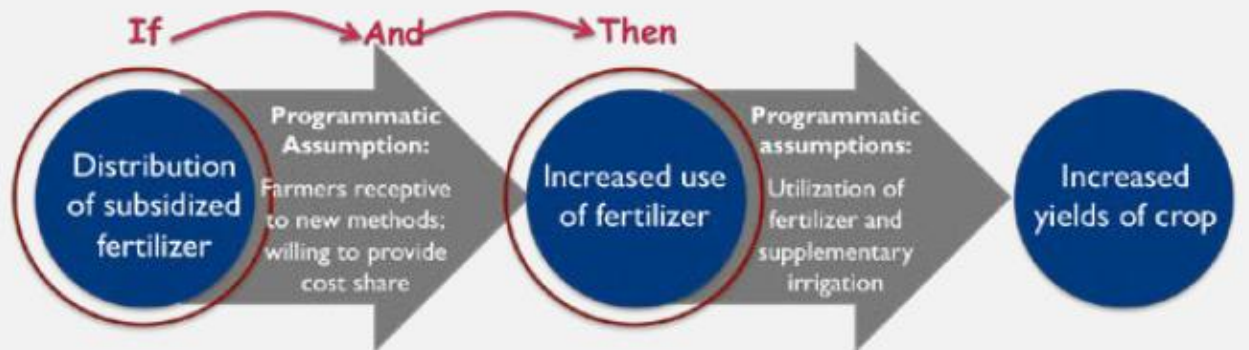
- What do we need the government to do?
- What do we need partners/other organisations to do?

What “shocks” in the
environment might derail our
progress?

Who, outside of the project, are we relying on to do
certain things in order for our effort to succeed?

Types of Assumptions

- **Programmatic assumptions:** implicit ways in which key outcomes are expected to contribute to the next level of outcome
 - Based on evidence, experience, belief of the project team
 - Should be described in the TOC narrative
 - Could include: why a specific project is needed at a given point in time within the change process
- **Contextual assumptions:** external factors in the project context that are also outside the project manager's control, but are nevertheless necessary for success.



Context Assumptions:

- ✓ Stable fertilizer prices
- ✓ Adequate rainfall
- ✓ Market demand remains stable

Assumptions: Examples

- Programmatic Assumptions

- Research conducted by the project will have limited impact at the community level, but will be positively leveraged with funding agencies working in the same area
- Systematic learning from the project enables CSOs to grow and move beyond “business as usual”
- Transformative – not only development or episodic change – is essential for sustained positive results
- Changes will be detectable and measureable within the life of the project

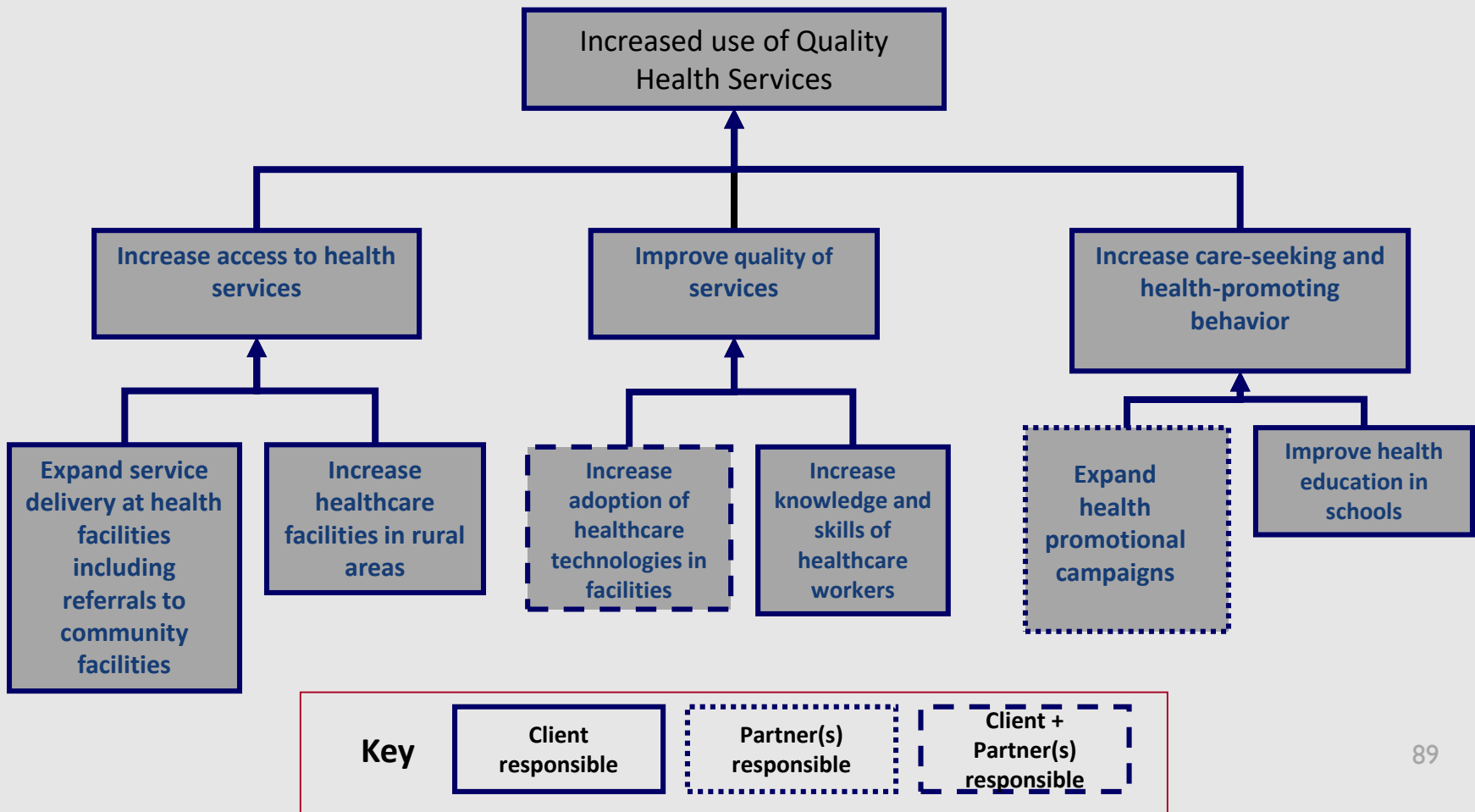
- Contextual Assumptions

- Continued political stability
- No acute increase in violent conflict
- World Bank funded loans for target small businesses are provided as planned
- Promised government funds to improve the road network are fulfilled
- Fertilizer prices remain stable

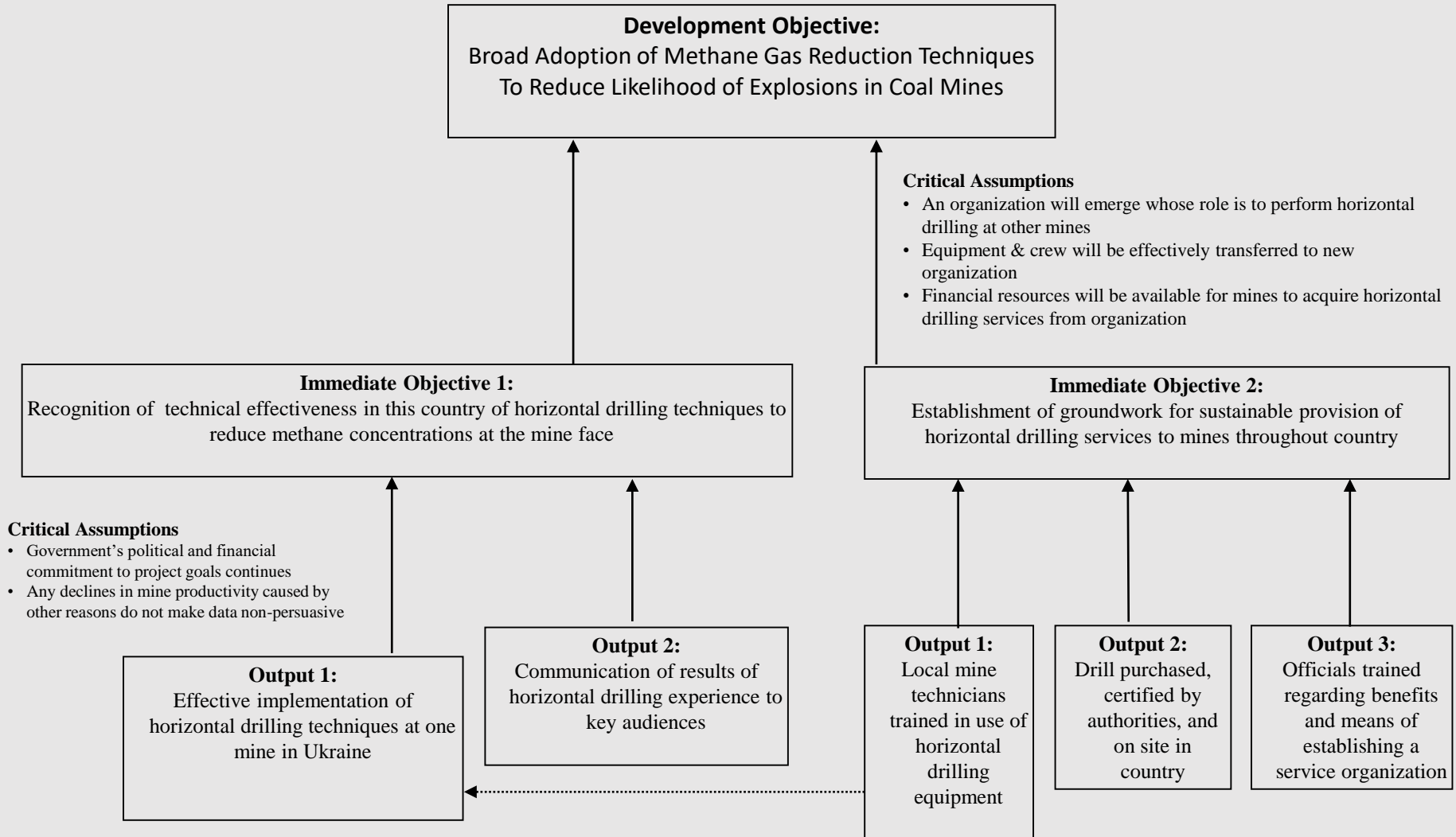
Example: Assumptions

Critical (Contextual) Assumptions

1. Development partners and the government budget allocations are sufficient and appropriate.
2. Government honors its commitment to provide infrastructure improvements to health facilities.
3. Adequate availability of health workers.
4. Private sector continues to be involved in social service delivery.



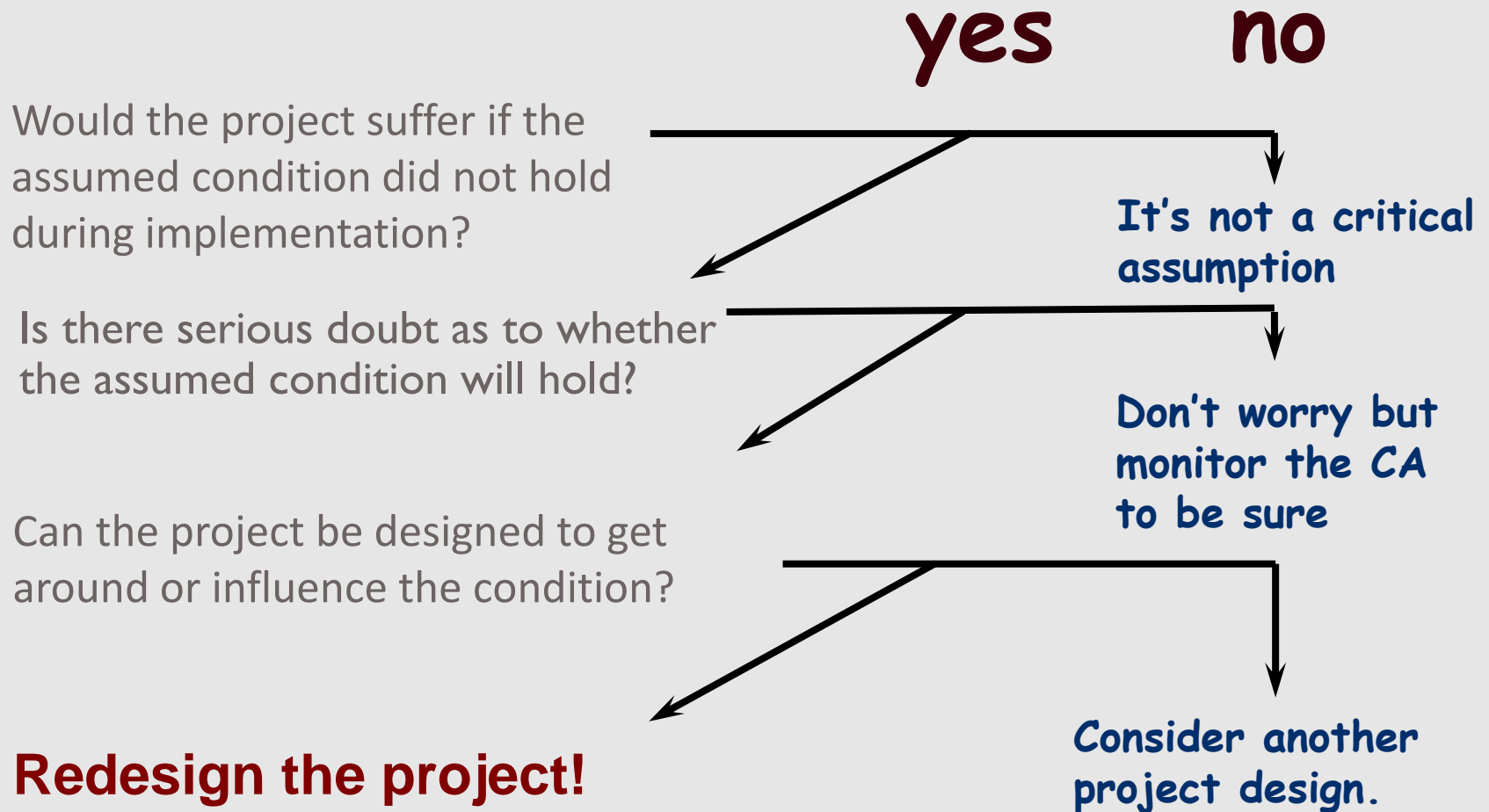
Example: Assumptions



Which assumptions really matter?

- Utilizing assumptions within the project cycle:
 - Develop risk mitigation plans
 - Analyze risks during implementation
 - Track assumptions utilizing context indicators
 - E.g. elections will take place, decentralization will proceed as planned, permissive security situation will continue in implementation areas

Analyzing Assumptions

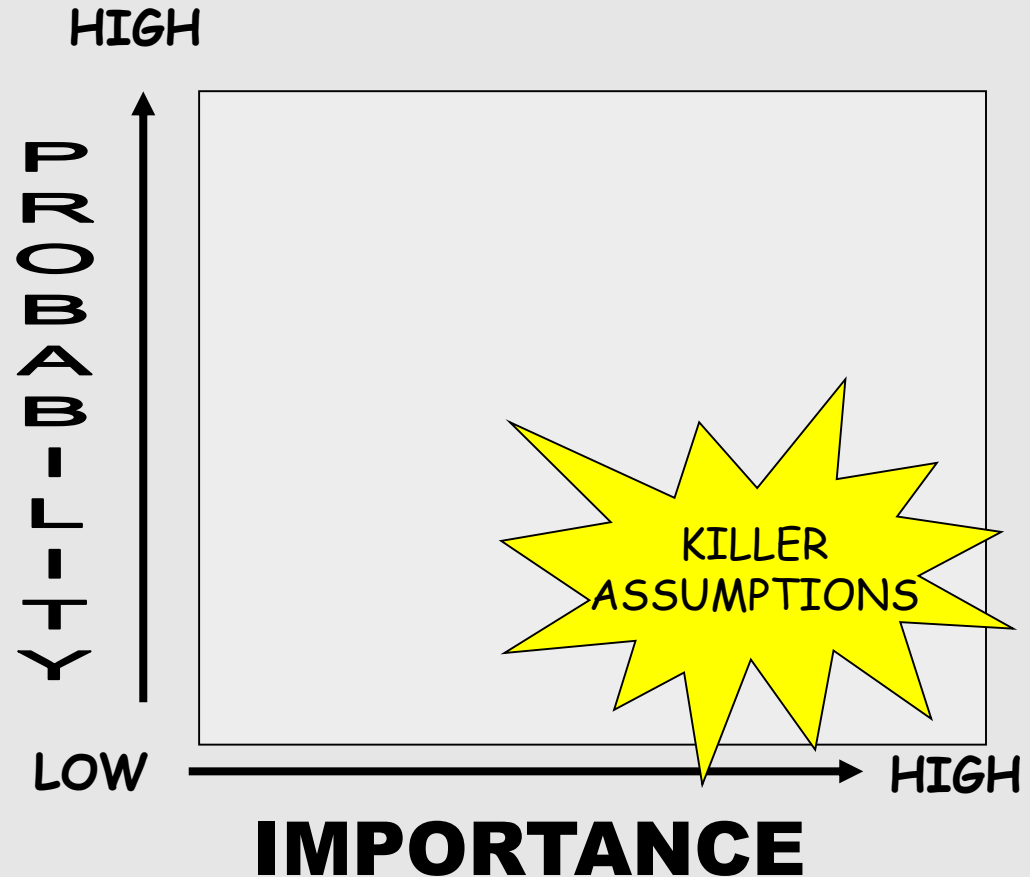


Assessing Critical Assumptions

- Our task is not simply to identify assumptions and then ignore them. We need to **assess** their importance and probability.

How important are they to the achievement of project success?

How likely is it that they will hold true?



Group exercise

- Discuss assumptions at each level of the causal outcomes diagram
- Write assumptions on sticky notes and place appropriately within your causal outcomes diagram
- **Time: 30 minutes**

Traditional vs Adaptive Management

Traditional Management

- Standardization and control
- Change efforts driven top-down
- Relies on management planning and execution of repeatable tasks

Adaptive Management

- Interaction and change
- Change is emergent and contextual
- Relies on organization having appropriate capacities and processes to generate novelty in day-to-day performance

In Dynamic Contexts



In Dynamic Contexts

New kinds of information may be useful

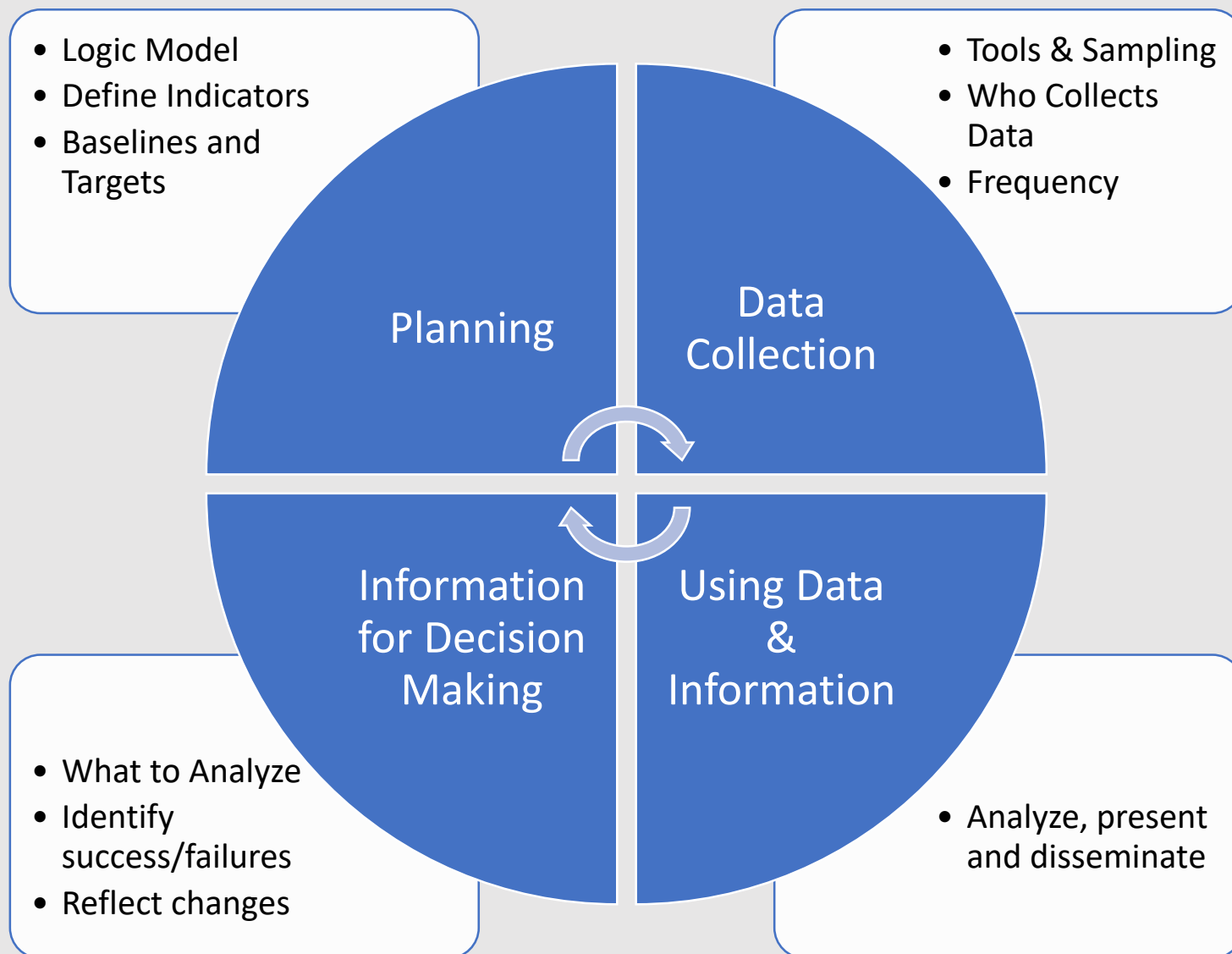


Data Collection

- The main focus of an MEL system is providing information that can be used during internal and external decision making.
- So, while good data collection is necessary to get useful information, data collection is not why we do MEL.



Data Collection in M&E Cycle



Data and Indicators

Step 1: in the project planning stage, we identified what indicators we want data for.

- Next, we are going to decide:
 1. The details and definition of each indicator;
 2. How data will be collected and stored;
 3. How to test the mechanism of data collection; and
 4. How we will ensure that the quality of the data is sufficient.

Data Collection- Planning

Methods and Sources

- Once you have identified the data you need to collect, it is essential to identify sources of information and data collection methods or tools.
- Such as the use of secondary data, regular monitoring or periodic evaluation, baseline or end line surveys, Key Informant Interviews (KIIs), and Focus Group Discussions (FGDs).
- It is important to consider the data collection tools (questionnaires, checklists). Are they pre-existing or will they need to be developed?




Timing

- When planning data collection, timing is important. Consider factors such as seasonal variations, school schedules and holidays.

Indicators Tracking Sheets

[illegible]

Methods of Data Collection

Examples	Photos	Qualitative Approach	Quantitative Approach
1. Oil painting		Blue, green with some red color Portrait middle-age man in formal dress Ugly , Beautiful	Painting is 10cm by 14cm Frame is wood and 14cm by 18cm Weighs 1.8 kg, Cost \$2000 USD
2. Coffee		Robust Arabica aroma Frothy appearance Strong flavor, gives comfort	100 ml of coffee 55 degrees Celsius temperature 30 grams of coffee
3. School Class		Friendly & helpful attitudes Interactive Clean / Dirty Crowded / Not crowded	2 boys and 3 girls 3.5 GPA Average age of 11 years Student / Teacher ratio

Data Collection- Planning

Quantitative methods

- Things are either measured or counted, or questions are asked according to a defined questionnaire so that the answers can be coded and analyzed numerically.

Qualitative methods

- Help build an in-depth picture among a relatively small sample of people on a specific issue. They reveal in more detail how people perceive their own situation and problems, why and what their priorities are.

Data Collection: Methods and Tools

- Desk/Literature Review
- Observation
- Focus Group Discussions (FGDs)
- Key Informant Interviews (KIIs)
- Direct Measurement
- Questionnaires
- Other tools?

Data Collection Methods

A Comparison

- Each method has advantages and problems. No single method can fully measure the variable important to OD
- Examples:
 - Questionnaires and surveys are open to self-report biases, such as respondents' tendency to give socially desirable answers rather than honest opinions.
 - Observations are susceptible to observer biases, such as seeing what one wants to see rather than what is actually there.

Data Collection Methods

Addressing the Challenge

- Because of the biases inherent in any data-collection method, it is best to use more than one method when collecting diagnostic data.
- The data from the different methods can be compared, and if consistent, it is likely the variables are being validly measured.

Questionnaires

What to know:

- Questionnaires are one of the most efficient ways to collect data.
- They contain fixed-response questions about various features of an organization.
- These on-line or paper-and pencil measures can be administered to large numbers of people simultaneously.
- They can be analyzed quickly.
- Questionnaires can be standard based on common research or they can be customized to meet the specific data gathering need.

Questionnaires

Drawbacks:

- Responses are limited to the questions asked in the instrument.
- They provide little opportunity to probe for additional data or ask for points of clarification.
- They tend to be impersonal.
- Often elicit response biases – tend to answer in a socially acceptable manner.

Key Informant Interviews (KIIs)

What to know:

- Interviews are probably the most widely used technique for collecting data.
- They permit the interviewer to ask the respondent direct questions.
- Further probing and clarification is possible as the interview proceeds.
- This flexibility is invaluable for gaining private views and feelings about the organization and exploring new issues that emerge during the interview.

Key Informant Interviews (KIIs)

Drawbacks:

- Interviews may be highly structured, resembling questionnaires, or highly unstructured, starting with general questions that allow the respondent to lead the way.
- Interviews are usually conducted one-to-one but can be carried out in a group.
- Group interviews save time and allow people to build on other's responses.
- Group interviews may, however, inhibit respondent's answers if trust is an issue.

Focus Group Discussions (FGDs)

What to know:

- A small group of 10-15 people is selected representing a larger group of people
- Group discussion is started by asking general questions and group members are encouraged to discuss their answers in some depth.
- The richness and validity of this information will depend on the extent that trust exists.

Focus Group Discussions (FGDs)

Drawbacks:

- They can consume a great deal of time if interviewers take full advantage of the opportunity to hear respondents out and change their questions accordingly.
- Personal biases can also distort the data.
- The nature of the question and the interactions between the interviewer and the respondent may discourage or encourage certain kinds of responses.
- It take considerable skill to gather valid data.

Observation

- Informal/direct or in-depth observations over an extended period of time.
- E.g. inspection, field visits.
- The simplest, most effective data are collected by observing activities or programs first-hand, especially Project implementation activities.

The Good	The Bad
Detailed on behaviors	Generalization is limited
They involve real-time data	Expensive and time-consuming
They are free of the biases inherent in the self-report data	May affect behavior of participants

MEL Specialists



MEL Specialists

What does a MEL Specialist do?

- Support in the design and development of the MEL system and enforce its implementation in the field;
- Support in the design and implementation of necessary MEL Tools;
- Train and follow up with stakeholders to ensure proper usage of tools and templates;
- Conduct field verification visits and submit a full descriptive field visit reports;
- Collect data for the purpose of reporting;
- Put together protocols and guidelines for specific tools;

MEL Specialists

What does a MEL Specialist do?

- Design necessary surveys and assessments conducted by the project;
- Assist in the verification of the project documents;
- Maintain program files and records;
- Conduct data quality checks and assessments;
- Lead learning sessions and potential opportunities for internal reflections;
- Perform evaluation functions on specific components;
- Promote good knowledge management practices and sharing findings within specific teams and/or organization;

MEL Specialists

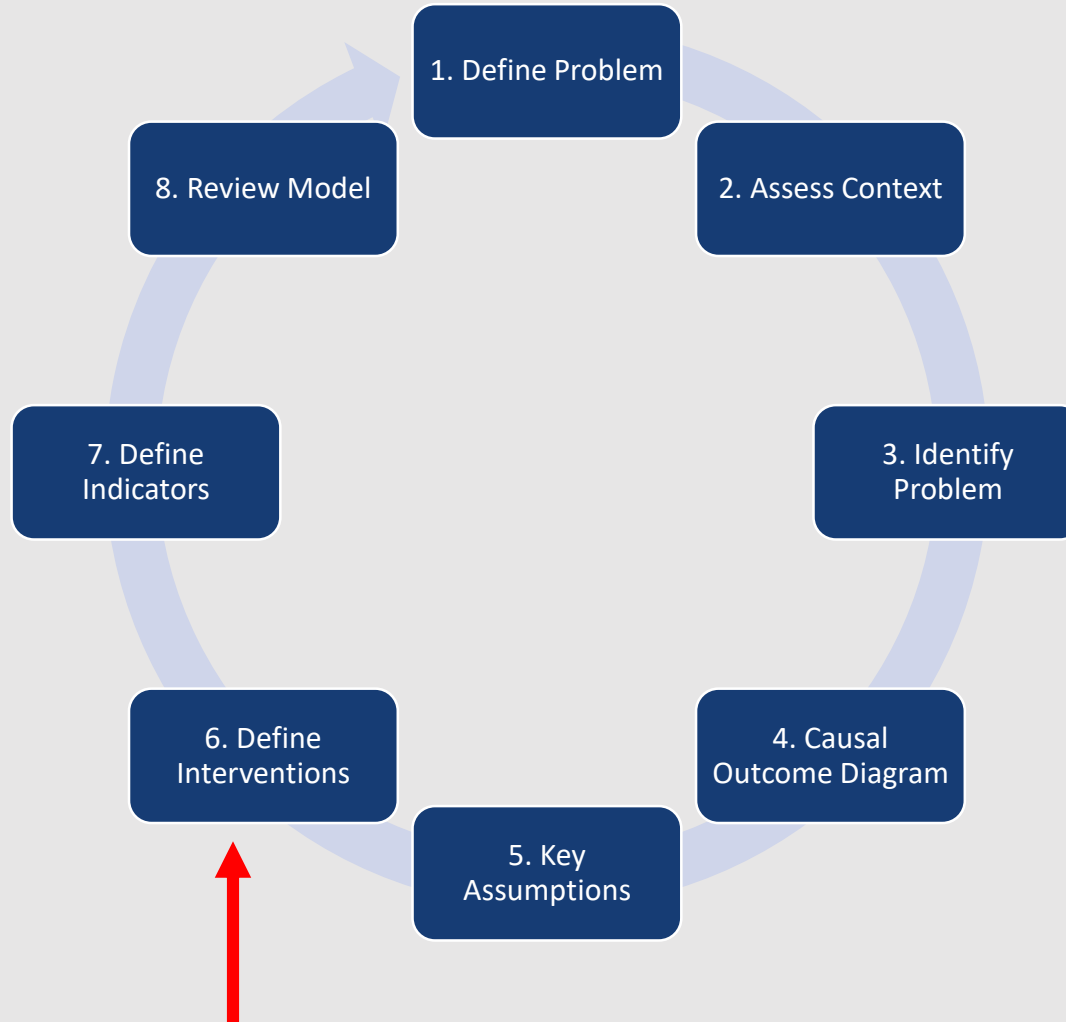
These are some key competencies associated with successful M&E personnel:

- Proficiency with Microsoft Office, especially Microsoft Word, Excel and Outlook;
- Analytical mind and attention to details;
- Strong team player, able to develop and maintain effective working relationships within a dynamic team;
- Strong skills in inter-personal communications, able to work effectively with multiple stakeholders in a complex, multi-actor environment;
- Sensitivity to cultural differences and has the ability to work effectively across a wide variety of cultural contexts;
- Flexible, creative, and solution-oriented approach in an innovative environment.

Overview- Day 4

- Defining interventions
 - Types of interventions
 - Causal linkages to results and prioritizing interventions
- Defining Indicators
 - Types of indicators
 - Output vs outcome indicators
 - Setting out baselines and targets
 - Data Quality Criteria
- Review program TOC model
 - What to look for
- The role of learning in M&E
 - CLA as an example
- Finalizing project TOC design
 - TOC products (Logical models, narrative and visual TOC products)
 - Periodic TOC reviews to inform continuous improvement and learning

Step 6: Define Interventions



Step 6: Identify and Define Major Interventions

- **Without interventions, there is no project!**
 - Interventions are the entry level or first (bottom) step in the pathway of change
 - In logic models, interventions are often referred to as activities or inputs
- Not every outcome in the theory of change requires an intervention.
 - Some outcomes are “actionable” – others are simply the result of the chain of outcomes that comes before them.
- Recheck your model after this step.

Interventions in TOCs - Example

Goal:

Increased use and
continuation of FP/RH
services

Result:

Demand for Family
Planning & Reproductive
Health Services Increased

Sub-result:

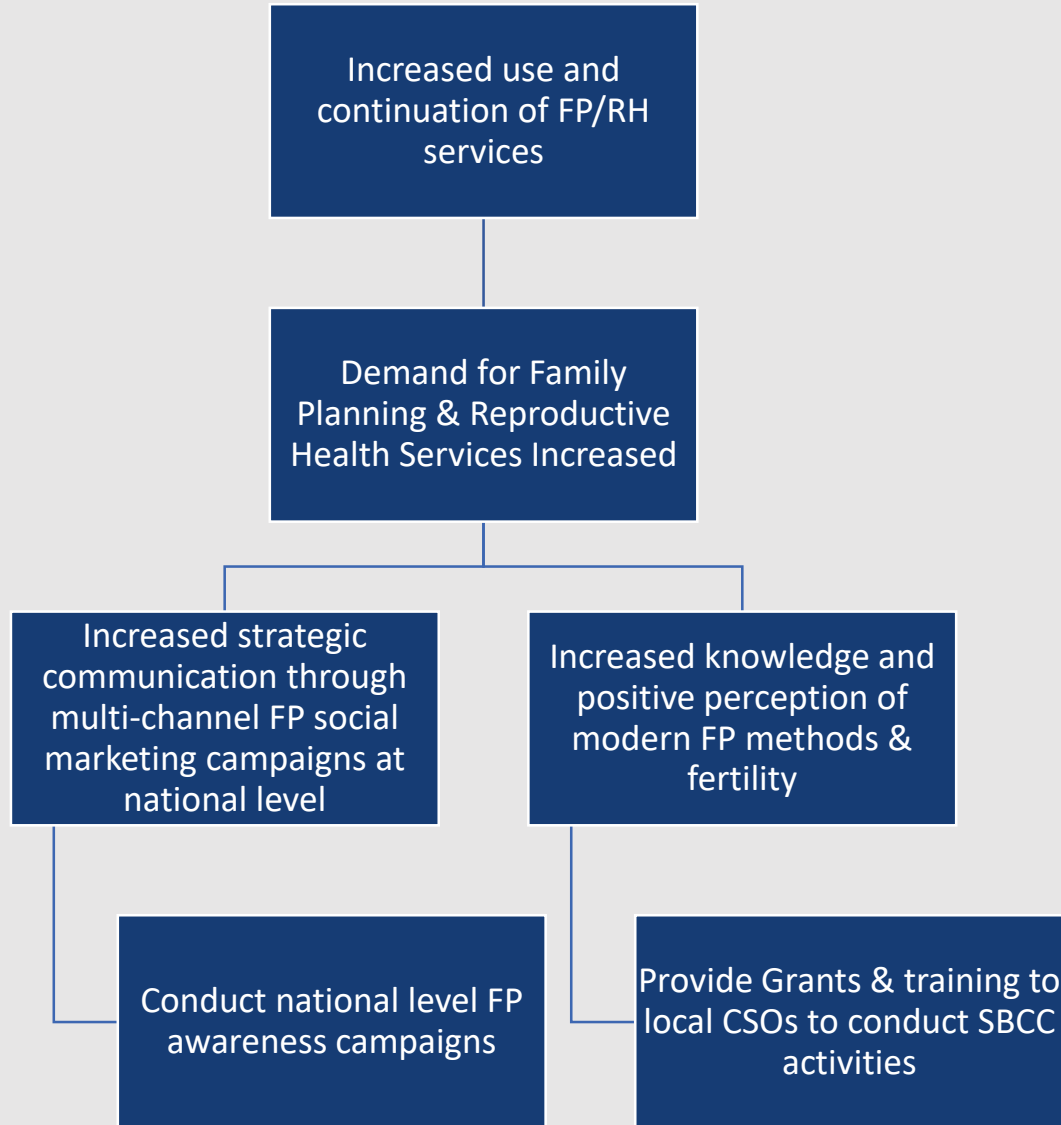
Increased strategic
communication through
multi-channel FP social
marketing campaigns at
national level

Increased knowledge and
positive perception of
modern FP methods &
fertility

Intervention:

Conduct national level FP
awareness campaigns

Provide Grants & training to
local CSOs to conduct SBCC
activities



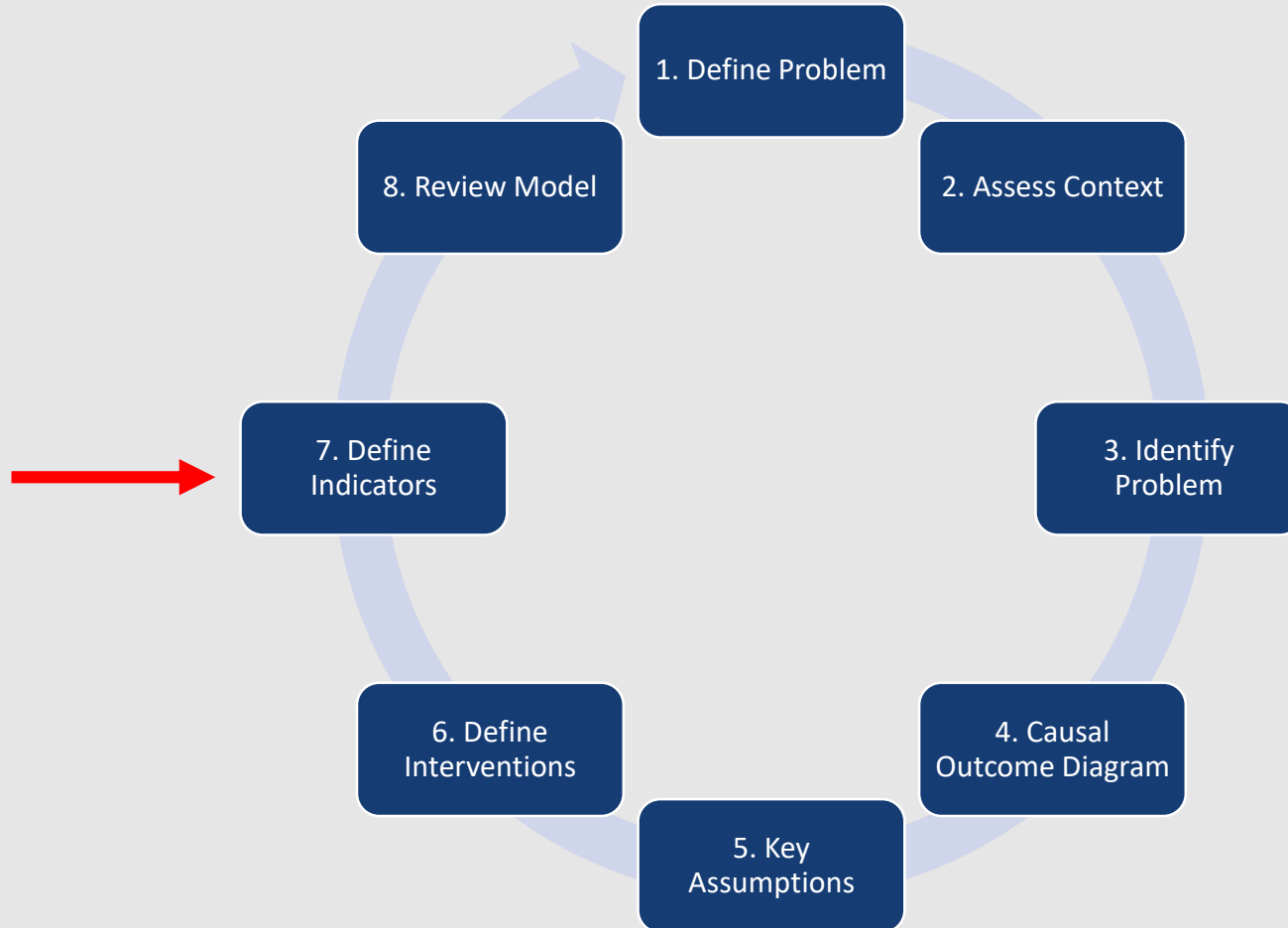
Prioritizing Interventions – Ask Critical Questions

- Potential Impact
 - Evidence-base
- Context
- Feasibility
 - Opportunities
 - Risk
- Cost-effectiveness
- Sustainability

Group Work

- Identify key interventions to support your project results
- Integrate into your existing causal outcomes diagram
- Discuss and add assumptions between the intervention and output level of your causal outcomes diagram
- **Time:** 20 minutes

Step 7: Define Indicators



Step 7: Identify and Define Key Indicators

In your experience, when have indicators been most useful?

When have they been least useful?



What is an Indicator?

- An **observable or measurable** characteristic that shows, or “indicates,” the **extent to which an intended result is being achieved**.
- Tell us how success will be recognized or measured at each step in the theory of change
- Provide a method of assessing assumptions, outputs, outcomes, and sustainability
- Shows extent to which expected changes laid out in the theory of change/program design have occurred in reality
- Signal changes in assumptions underpinning your theory of change

An Indicator is ***Not***

Indicators are **not results, goals, objectives, or targets**. Indicators measure results and help us understand our performance against targets.

Indicators are **not biased** i.e. they do not specify a particular level of achievement or direction of change.

Result statements show the desired direction of change (increase or decrease).

Targets identify the desired value of the indicator that we want to achieve.

Result: Grade-two students reading skills improved

Indicator: Percent of grade two students who demonstrate that their reading skills improved

Target:
55%

Indicator Levels

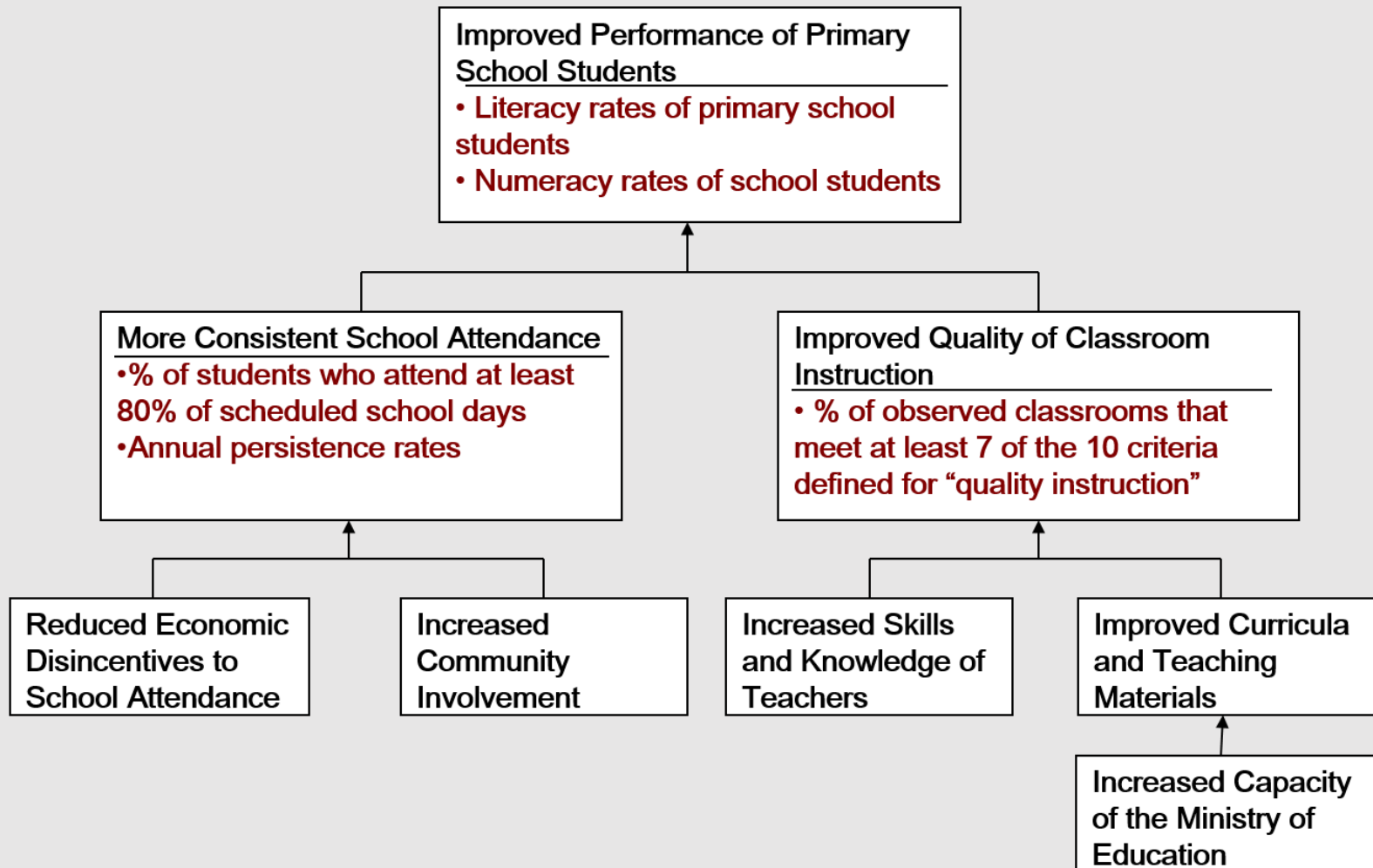
Element	Definition	Examples
Inputs	The primary resources required to carry out the project.	<u>What the project needs and uses:</u> <ul style="list-style-type: none"> •Funds; Human resources; Facilities & equipment; Partners and community groups •Indicator: Number of curriculum textbooks printed
Activities	Sets of actions which use inputs to produce specific outputs.	<u>Things a project does:</u> <ul style="list-style-type: none"> •Provide training; develop websites; Offer access to Micro-finance; Provide TA •Indicator: Number of teacher trainings conducted
Outputs	The immediate products of project activities (direct, tangible)	<u>What immediately results from activities:</u> <ul style="list-style-type: none"> •People trained / mentored; website operational; Micro-finance manuals produced & distributed. •Indicator: Number of teachers trained
Outcomes (Results)	The things that happen because of what a project or program does.	<u>What occurs because of the project:</u> <ul style="list-style-type: none"> •Employment of youth in target areas / sectors increased •Increased use of new practices among target groups •Indicator: Number of teacher implementing new practices in the classroom
Impact	Longer-term changes in conditions or situations linked to project interventions	<u>What the project contributes to or may cause:</u> <ul style="list-style-type: none"> •Increased GDP •Reduced prevalence of HIV •Indicator: Literacy rates for children in grades 1-8

Indicator Guidance

Key Guiding Question: What information do we need to track and analyze progress, support adaptive management and learn about our assumptions?

- **Best practices:**
 - Indicators should be referenced in the TOC narrative
 - Indicators must be depicted in the logic model (snapshot of the TOC)
 - Choose as many or as few indicators as is meaningful and necessary for your project
 - Keeping in mind indicators required or requested by the Canadians
 - At least one indicator recommended per result and result level

Indicators Link to Results



Criteria for Selecting Indicators

- Utility
- Cost
- Adequacy
- Feasibility
- Meets quality standards
(validity, integrity, precision,
reliability)
- Donor requirements



Trained Observer Rating Scale: Street Conditions

Rating	Condition	Description
1	Good	No faults in the road, smooth
0	Needs repair	Any damage: cracks, bumps, or worse

Photographic Rating Scale: Street Conditions



Photographic Rating Scale: Street Conditions



Trained Observer Rating Scale: Street Conditions

Rating	Condition	Description
1	Excellent	Recently completed work, no faults, smooth
2	Good	Recently completed work, normal wear, small cracks
3	Fair (upper)	Slight damage, minor cracks need filling or some leveling would help
4	Fair (lower)	Bumpy. Numerous minor cracks, easily visible bumps.
5	Poor	Considerably bumpy. At least one section of the street is broken. Potholes present. Needs repair.
6	Very Poor	Multiple potholes and breaks. Needs reconstruction.
7	Dangerous	Potential safety hazard or cause of severe jolt. One or more <i>large</i> potholes, or other major defects three and a half inches high or deep.

STANDARDS FOR DATA QUALITY

- **Validity:** data (and the indicator) clearly and adequately represent the intended result
- **Integrity:** data has safeguards to minimize risk of transcription error or data manipulation
- **Precision:** data has sufficient level of detail to permit management decision-making
- **Reliability:** data reflects stable and consistent data collection processes and analysis methods over time and across sites/partners
- **Timeliness:** data is available at a useful frequency, is current, and timely enough to influence management decision-making

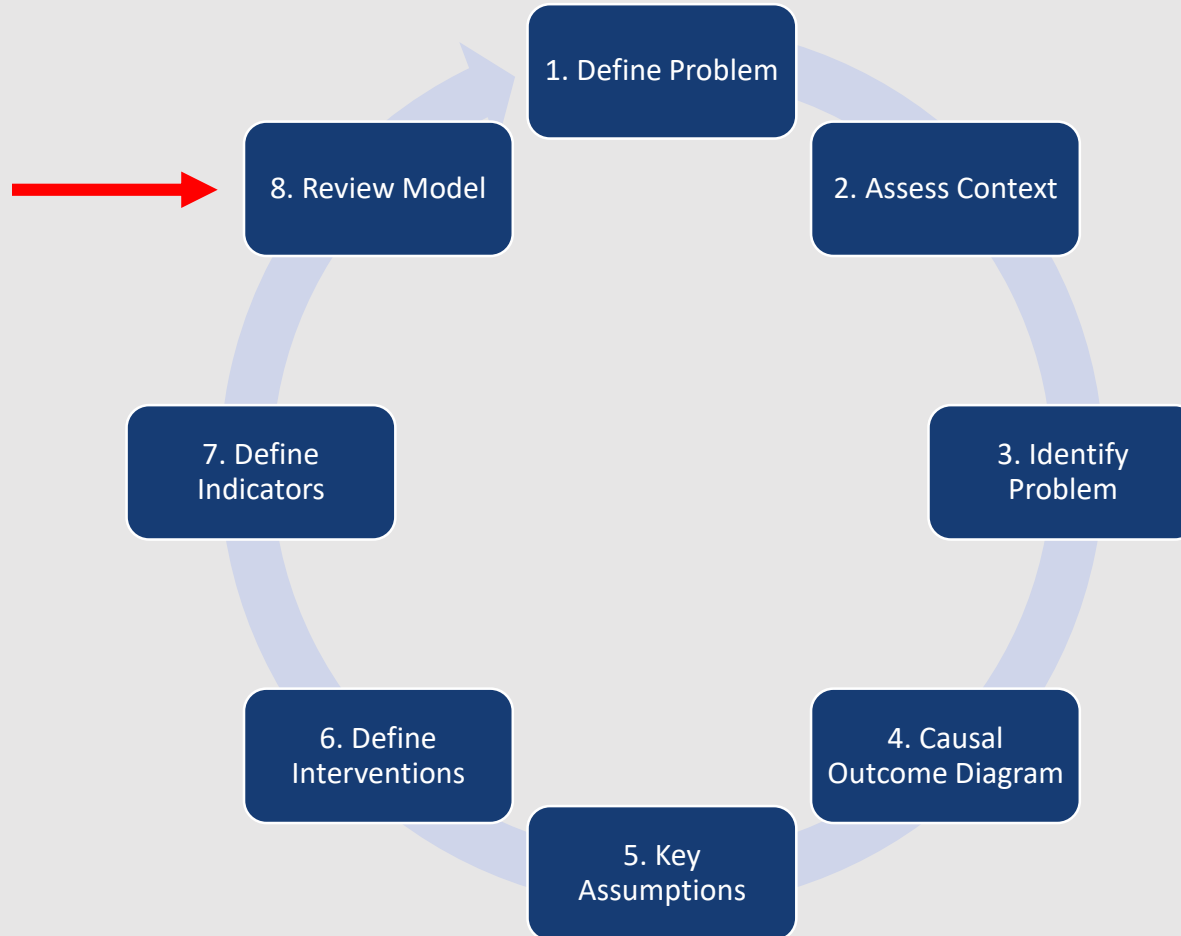
Group Exercise - Indicators

- Propose at least 1 indicator (quantitative or qualitative) for each result
- **Time:** 15 minutes

Energizer Activity



Step 8: Review Model



Step 8: Review the Strength of the Model

- Key questions
 - Is it adequate?
 - Does it include all the required elements?
 - Does the TOC narrative and graphic thoroughly explain **HOW** and **WHY** change will happen??
 - Is the narrative and graphic easy to understand and clearly communicate the intended message?

Would the design stand up to external examination?

Group Exercise – Review Your TOC Model

- Review your TOC model.. Have a LIVELY discussion!
- **Time:** 30 minutes

Learning has many Different Labels



Learning

Organizational Learning

Continuous Learning & Improvement

Knowledge Management

Collaborating, Learning and Adapting (CLA)

Evidence-Based Learning

A Learning Model Example: CLA

- Collaborating, Learning, and Adapting (CLA) is a set of practices that help us improve our development effectiveness.
- Learning has always been part of your work, and most organizations are already practicing CLA in some way
- Our aim now is to make CLA more systematic and intentional throughout the Program Cycle, and to dedicate the resources necessary to make it happen.

What is CLA?

- Why is learning important throughout the program cycle?
- What are some examples of learning activities that exists within your organization?
- How does learning link to M&E?

Step 9: What is it to you?!



TOC Product Suggestions

- Utilize multiple pages to display different domains of change and related causal pathways
 - E.g. 1 page overview, 1 page per project component
- Keep the visualization simple but valid
 - Provide detail in the narrative
- Dotted lines to indicate indirect relationships or relationships across results

Transferring TOCs to Logic Models

- Logic models are snapshots of TOCs
 - Conveys major results
 - Causal linkages between major results
 - Indicators to measure major results
 - Critical Assumptions (contextual assumptions, outside of the control of the program)
- Complete this step after the TOC process

TOC Narrative Guidance

- Complete AFTER the TOC graphic/Logic model snapshot is completed
- Summarize the TOC graphic and integrate other information not easily conveyed in a graphic
- Organize narrative by key results
- Ensure TOC narratives/graphics and work plans complement each other

Components of a Complete TOC Narrative

- **The context** in which the development problem is situated
- **Intended results and sub-results**
- **Description of HOW and WHY** change is expected to happen
 - Causal pathways leading to the desired change (in part, if-then statements can be used)
 - Evidence (as applicable) supporting hypothesized causal linkages
- **Major interventions** that you will undertake to catalyze these outcomes
 - Include collaboration/coordination with other actors
- **Key assumptions** that underlie the success of this theory
 - Programmatic assumptions
 - Critical (contextual) assumptions
- **Key indicators** to monitor how progress unfolds during implementation

Periodic TOC Review

- Pause and reflect moment
 - Conducted at a specific or critical point in time during implementation
 - Aligned with decision-making and planning cycles
 - Informed by existing performance monitoring data and implementation knowledge and experience
- Format
 - Workshop
 - Group discussion
 - Series of small group discussions
 - Combination of multiple formats depending on time

Questions & Answers

