# Module 4: Results-based Monitoring and Evaluation System

Session 4.1: Concepts, structure, and key elements of formulating results-based M&E system

Topics:
- Concepts of results-based M&E system
- Structure of results (results chain)
- Key elements and standards of M&E system (framework and plan)

Summary: This session will cover the cross-cutting theme of monitoring and evaluation system for projects with example of design and monitoring framework (developed and used by Asian Development Bank), discussion of the results chain in detail, and introduction of the key elements and standards in performing monitoring and evaluation on a project.

Key Words: Design and monitoring framework, results chain, monitoring and evaluation

Objectives: To be able to
- Understand the concept of M&E and its relationship with other components of project
- Differentiate levels of results and link them to the M&E system
- Know the contents of M&E framework and plan

Outcomes: Participants will learn how to monitor and evaluate a project using logical framework by targeting different results level to track, improve, and assess project achievements.

Methods: Presentation delivered by RP; group discussion and practice

Materials: PPT, project document (EOI) of sample MKCF projects, Flip charts (White board), markers, color papers, scissors, tape

Contents:

- **Design and Monitoring Framework** *(from Asian Development Bank)*

The Process to Produce a Design and Monitoring Framework
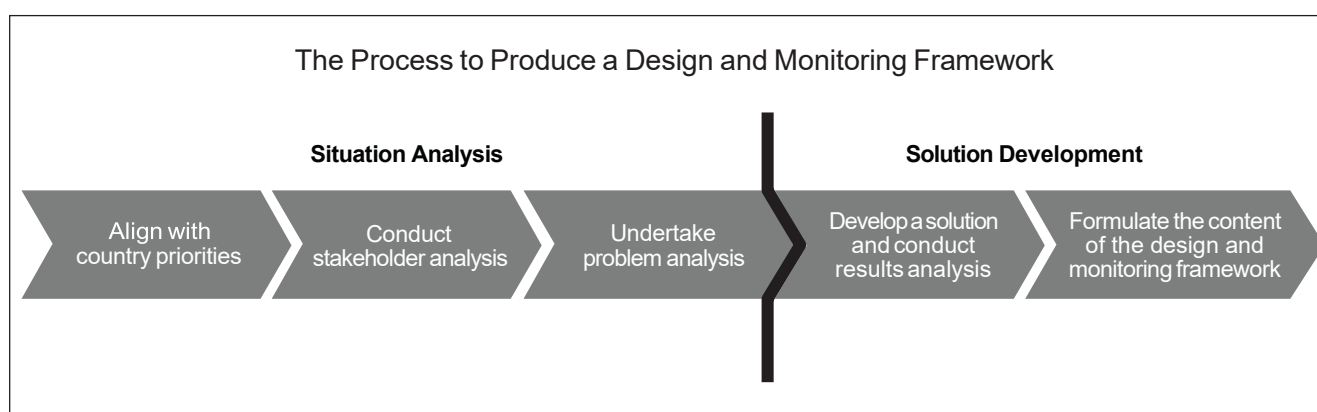
- The primary purpose of a project is to achieve results that meet people's and/or organizations' needs.
- A results chain consists of a series of expected achievements, or positive changes, linked by causality.
- The results chain is a continuum from inputs to activities to outputs, and to outcomes.
- Outputs are defined as goods, services, or products delivered by the project, while outcomes are the immediate and direct benefits of the use or application of the outputs.
- The differences of the results are shown in the following table.

Table 1: Differences between Results Levels

Results Level	Relationship to Project	Source of Result	Timing of Achievements	Control by Project or Beneficiaries	Accountability	Changes during Project Implementation
Impact (not part of results chain)	Aligned with project outcome	Higher-level documents, e.g., national, sector, subnational, or regional plans or strategies	Usually post project	Outside beneficiary control	No direct project accountability	Should not change, although additional impact statements can be added to reflect alignment with a new strategy or plan introduced after project approval
Outcome (part of the DMF results chain)	Directly influenced by project	Needs of beneficiaries	Target level achieved by end of first full year of operation following physical completion, or before financial closure of project	Within the control of beneficiaries	Project accountable for outcome achievement. Project success (effectiveness) measured against outcome targets	Major change in scope if there is a material change in the outcome
Output (part of the DMF results chain)	Produced or delivered by project	Project deliverables	By physical completion	Within control of project, given inputs, risks, and critical assumptions	Project accountable for outputs	Minor change in scope if no effect on the outcome

DMF = design and monitoring framework.

Source: ADB, Design and Monitoring Framework

Outputs

- o Include major products and deliverables of the project.
- o Ensure that together, outputs will be sufficient to achieve the outcome, given the risks and assumptions.
- o Include an output for each set of activities, except project management activities, which do not produce an output.

- Phrase outputs in the past tense as already achieved, e.g., "rural roads constructed in the southern districts."
- Include a word signifying completion (e.g., constructed, rehabilitated, established, implemented, improved) in the statement.

Outcomes

- Include only one outcome statement describing the immediate and direct benefits from using or applying outputs.
- Phrase the outcome in the past tense as already achieved, e.g., "increased mobility of rural residents." The statement must include at least one change word (e.g., increased, improved, enhanced).
- Do not include any cause-and-effect links.
- Outcome statements should not use the words "through," "by," or "in order to," because these words imply cause-and-effect links, e.g., corporate performance improved through capacity building, graduation rates increased by reducing dropouts, crop yields improved in order to increase farmer income.

Impacts

- The project's results chain is aligned with impact statements, which are sourced from the most relevant strategic document(s), usually a government national, sector, subnational, or regional plan or strategy, before the project is conceptualized.
- The impact level in the design and monitoring framework is separated from the results chain to show that its purpose is alignment, not performance measurement.
- The DMF does not include performance indicators or targets to measure impact statements.
- Impacts are long-term in nature and are expected to occur sometime after project closing.

Table 2: Example Results Statements for Operations in Common Areas

Results Level	Urban Transport	Energy Generation	Urban Water Supply	Training of Technical and Vocational Education and Training Teachers	Financial Intermediation
Impact (Long-term end goal, not part of results chain)	Jobs and economic activity increased	Health, education, jobs, and economic activity increased	Waterborne diseases reduced	Workforce skills and productivity increased	Employment in small and medium-sized enterprises increased
Outcome (Immediate and direct benefit of output use)	Travel convenience, safety, and affordability for women and men improved	Consumption of electricity in remote communities increased	Consumption of clean, treated water increased	Quality of technical and vocational education and training (TVET) delivery enhanced	Economically viable small and medium-sized enterprises, managed by women and men, increased
Output (Provided or delivered)	Urban rail system constructed Institutional capacity of Department of Transport strengthened	Off-grid solar energy installations constructed Capacity of residents in remote communities to use and maintain solar energy installations enhanced	Water distribution and treatment facilities in urban areas rehabilitated Institutional capacity of water utility service provider strengthened	TVET teacher knowledge and skills improved Quality and relevance of TVET curriculum improved Technical training institutes upgraded	Financing to microfinance beneficiaries, including women, through intermediaries increased

Source: ADB, Design and Monitoring Framework

— **Monitoring**

- **Monitoring tracks the operational work of the project**. It answers questions like: "Have activities been completed as planned?" "Have outputs been produced as anticipated?" "Is the work of the project progressing as projected?" "What is the difference between what we had planned and what is actually taking place?"
- Project monitoring informs the project manager where the project performance is in terms of money, time, risk, quality, and other areas of project progress.
- Monitoring takes place at the activity and output levels and is done continuously throughout the project to monitor and update progress, to identify delays in schedule or any issues that need to be addressed or escalated to the project governance structure.

— **Evaluation**

- **Project Evaluation focuses on tracking progress at the higher levels** of the logical framework – i.e., project outcomes. Evaluations tend to explore questions like, "Is the project successful at achieving its outcomes?" "Is the project contributing to its ultimate goal?"
- Evaluation data is collected and analyzed less frequently and often requires a more formal intervention (often by technical advisors or external evaluators) to show project results.

- Gathering and analyzing information to determine: Progress toward delivery of activities/outputs; and contributing to achievement of outcomes/goals.
- To measure project effectiveness
- To determine whether outcomes have been achieved
- To learn how well things are being done
- To learn lessons for future improvement

– **The Monitoring and Evaluation (M&E) Framework**

- The M&E framework is based upon the information in the logical framework and should directly relate to your indicators, activities, and outputs. Other things to consider are the frequencies in which the monitoring will be done, the capacity of the team doing the monitoring, and the tools (surveys, FGD, etc.) that will be used to collect the data.
- The monitoring plan should include the process that will be used to monitor and update the progress of activities against the plan and any reporting requirements.
- A standard M&E plan should include basic elements such as:
    - Indicator Performance Tracking Table (example shown below):

Activities	Performance Indicators	Output/ Outcome	Baseline & Target	Data Source	Data Dis-aggregation	Frequency of Meas.

    - Performance Monitoring Plan
    - Feedback Mechanisms
    - Evaluation Plan (see below) and Statements of Work

Objectives	Expected Outcomes	Indicators (Qualitative/ Quantitative)	Sources of Data	Methods & Tools	Tasks (Responsibilities)

- Sample M&E Framework (Plan)

Objectives	Activities	Expected Outputs or Outcomes	Indicators (Qualitative/ Quantitative)	Sources of Data	Methods & Tools	Fre-quency	M&E Tasks
1. To conduct environmental protection activities on specific topics in selected schools	1. Select schools in seriously environmental deteriorated regions or those that have great desire to conduct environmental protection	1. 10% of the schools participated in the project selected to undertake activities focused on specific themes 2. Good outcomes achieved through the collaborative activities of the schools and project; Teachers and students are more	1. 10% of the schools participated in the project took part in the activities of specific topics 2. Students are able to initiate discussions on their own on specific environmental topics				

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activities in specific topics as implementation sites 2. Integrate existing situation of schools and previous activities conducted by volunteers to come up with specific topics for the activities 3. Allocate required resources (human, materials, financial) for the specific-themed activities 4. Select and delegate environmental protection experts in different fields to conduct representative activities 5. Follow up on implementing subsequent work after activities complete	familiar with the environmental issues under the specific topics 3. Activities help the schools to broaden the scope and further promote environmental education 4. Forming of a team of professional experts providing support and guidance to the schools to enhance existing environmental education efforts 5. A group of environmental education teachers fostered to become the core team to organize and implement environmental education activities in schools in the future 6. These activities of specific themes become models in the region and are referenced and learned by other schools	3. Students apply what they learned from the specific activities and behave accordingly 4. Students are able to design and implement the extracurricular activities under the specific themes 5. Teachers and students' capacities in organizing similar environmental education activities increased; 6. At least one local training materials developed each year 7. At least one public speaking organized each year 8. At least one training of school teachers conducted each year				

- Regardless of the ultimate format a project employs to establish its plan for MEAL, as a minimum standard, every monitoring system should abide by the six essential elements of indicators, schedule and budget, staff and partners, full data cycle, data management, and linking to the next level.

Essential elements of monitoring system	Minimum standard to abide
Indicators	Clearly defined Baselined Systematically measured
Schedule and budget	Time and money are allocated for monitoring tasks Schedule processes for data collection, review, summary, analysis, and feedback
Staff/partners	Clearly identified monitoring responsibilities Competencies Plan monitoring activities with the stakeholders Build capacity of stakeholders on participatory monitoring systems Use participatory monitoring techniques Gather and verify monitoring data Process monitoring data
A full data cycle	Including a full cycle for managing monitoring data: **1. Collection; 2. Review; 3. Summary; 4. Analysis; 5. Feedback**
Data management	Procedures exist and are used to ensure integrity of data and proper storage of data
Link to the next level	The project monitoring system is linked to the next level of the organization's program or portfolio

Group practice: Developing a M&E system for sample project

1. Logical framework of a sample MKCF project will be shared to participants in groups
2. The groups will develop an M&E Framework from the logical framework of the sample project, with support from MI staff (MEL and MKCF team)
3. One person from each group will act as observer and report his/her observations of the process to the plenary at the end of the exercise