



Food and Agriculture Organization  
of the United Nations

# Monitoring, Evaluation and Learning of Natural Resources Management projects Part I

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*Thematic area: Monitoring and Evaluation*

*Project “Strengthening natural resources management capacities to revitalize agriculture in fragile contexts”*





## Presentation Outline

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Introduction to Monitoring and  
Evaluation (M&E)

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Definition and concepts of Result-Based  
Management

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Focus on Natural Resources  
Management and Agricultural projects

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Conclusion and Questions



## Introduction to M&E

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Monitoring and Evaluation (M&E) is a **continuous** management function to assess:

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if **progress** is made in achieving expected results

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to spot **bottlenecks** in implementation

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to highlight whether there are any **unintended effects** (positive or negative) from an investment plan, programme or project (project/plan) and its activities



## Purpose of M&E

- ▶ Monitoring and Evaluation (M&E) is used to **assess the performance of projects, institutions and programs** set up by governments, international organizations and NGOs.
- ▶ Its goal is to **improve current and future management of outputs, outcomes and impact.**

# Purpose and Benefits of M&E



**Supporting operational management** - providing basic management information needed to direct, coordinate and control the resources



**Supporting strategic management** – providing information for and facilitating processes required to set and adjust goals, objectives and strategies



**Knowledge generation and sharing** – generating new insights to contribute to established knowledge base in a given field. This includes documenting lessons learned



**Empowerment** – building the capacity, self reliance and confidence of beneficiaries, implementing staff and partners to guide, manage and implement development initiatives effectively



**Accountability, including impact evaluation** - demonstrating to donors, beneficiaries and implementing partners that expenditure, actions and results are as agreed or are as can reasonably be expected in a given situation

# Components of the M&E System

**M&E system** refers to **all the functions required to measure a project/plan progress and to assess the achievement of its results**


- ❖ It is composed of a **set of results**, measured by **indicators** (the **result framework**) through **monitoring tools** and **a manual that describes the roles and responsibilities** related to its functioning

- **Monitoring** is a continuous process by which stakeholders obtain regular feedback on progress towards achieving the set milestones and results (often focusing more on process, activities, inputs and outputs).

- **Evaluation** is the periodic review of the results of a project/plan (typically carried out at mid-term or at completion) towards its outcomes, development goals and impact

# Elements of M&E

- **Result Frameworks or log frames** (“RF”), which are tools to organize intended results, i.e. measurable development changes
- **the M&E plan**, which contains a description of the functions required to gather the relevant data on the set indicators and the required methods and tools to do so
- **the various processes and methods for monitoring** (such as regular input and output data gathering and review, participatory monitoring)
- **the Management Information System**, which is an organized repository of data (often georeferenced) to assist managing key numeric information related to the project/plan and the analysis.



## Key characteristics of M&E

**Sufficient budget** (for information management, participatory monitoring activities, field visits, surveys, etc.);

**Sufficient time** (for a start-up phase that is long enough to establish the M&E system, conduct a baseline survey, train staff and partners, include primary stakeholders in M&E, monitor and reflect);

**Sufficient capacity and expertise** (to support M&E development, skilled and well-trained people required for good quality data collection and analysis) for M&E.

**Sufficient flexibility in project design** to enable M&E system to influence the project strategy during implementation



# Benefits of M&E in Project design

- ▶ Enhances the **effectiveness of project/plan implementation** and contributes to its **ongoing revision and update**.
- ▶ Promotes **accountability**, where implementers have clearly defined responsibilities, roles and performance expectations, including the prudent use of resources. For public sector managers and policy-makers for example, it includes accountability towards taxpayers and citizens.
- ▶ Through systematic collection of information, **provides evidence for the mid-term and the completion results assessments as well as beneficiary-level impact analysis**.
- ▶ **Enhances learning and encourages innovation** to achieve better results and contribute to scaling up of projects.

# Sample Logframe

|            | Data Source | Means of Verification | Risk factors |
|------------|-------------|-----------------------|--------------|
| Impact     |             |                       |              |
| Outcome    |             |                       |              |
| Output     |             |                       |              |
| Activities |             |                       |              |

# Indicators, Targets, Baseline and Sources of Data

| S.No | Indicator                   | Baseline Value | Lop Targets | Sources of Data                                     |
|------|-----------------------------|----------------|-------------|---|
| 1    | Number of Hectare irrigated | 0              | 500         | Field Monitoring, Partners Data collection, surveys |
| 2    | Number of Jobs Created      | 0              | 100         | Data collection from partners, surveys              |
| 3    | Increase in Income          | \$150          | 10%         | Data collection from partners, surveys              |
| 4    | Gender Participation        | 0              | 20          | Data collection from partners, surveys              |
| 5    | Reduction in Poverty        | 35%            | 5%          | Data collected from the partners, surveys           |



## M&E: When to apply it?

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The design needs to begin **at the same time as overall project preparation**

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Should be **designed in close partnership with stakeholders**

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Partnership ensures project/plan objectives and targets and their measurements are well understood and shared

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This understanding facilitates the establishment of new institutions to take on the M&E role

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Adequate resources are allocated for implementation of M&E

# Budget for M&E activities

- Should account for **2-5 percent (approximately) of the overall project budget**
- M&E expenditure **should be distinct from other management costs** and **should provide detailed budget items** for staffing, training, technical assistance, surveys and studies, workshops and equipment, allowances for participatory stakeholder's consultations, communication and publication
- This will translate into considerable savings for government budgets and investments if the analysis is done well and based on evidence.

# Participatory M&E

- **Participatory M&E** = involving participants directly in the M&E process. Participatory M&E **increases ownership** of the activities and **likelihood of replication and sustainability**
- It can add value in two ways:
  - Ensures relevant information and experience is gathered from those who are immediately affected by the project
  - Increases accountability to participants who have a direct interest in implementation success.
- **Special efforts are required to incorporate stakeholders at all levels and ensure they contribute to and benefit from knowledge-sharing.**

# Results-Based Management (1)

- ▶ According to United Nations Development Group (2010), Results-Based Management (RBM) is a management strategy by which all actors on the ground, directly or indirectly contributing to a set of development results, ensure that their process, products and services contribute to the achievement of desired results (Output, outcome and goals)
- ▶ RBM rests on clearly defined accountability for results and requires monitoring and self assessment of progress towards results

# Results-Based Management (2)

- ▶ Results-based management is a way of managing whereby an organization ensures that all of its processes, products and services contribute to the achievement of desired results.
- ▶ It depends on clearly defined accountability for results
- ▶ It requires systematic monitoring, self-assessment and reporting on progress.
- ▶ It is a participatory and team-based approach to program planning
- ▶ It focuses on achieving defined and measurable results and impacts
- ▶ It is designed to improve program delivery and strengthen management effectiveness, efficiency and accountability



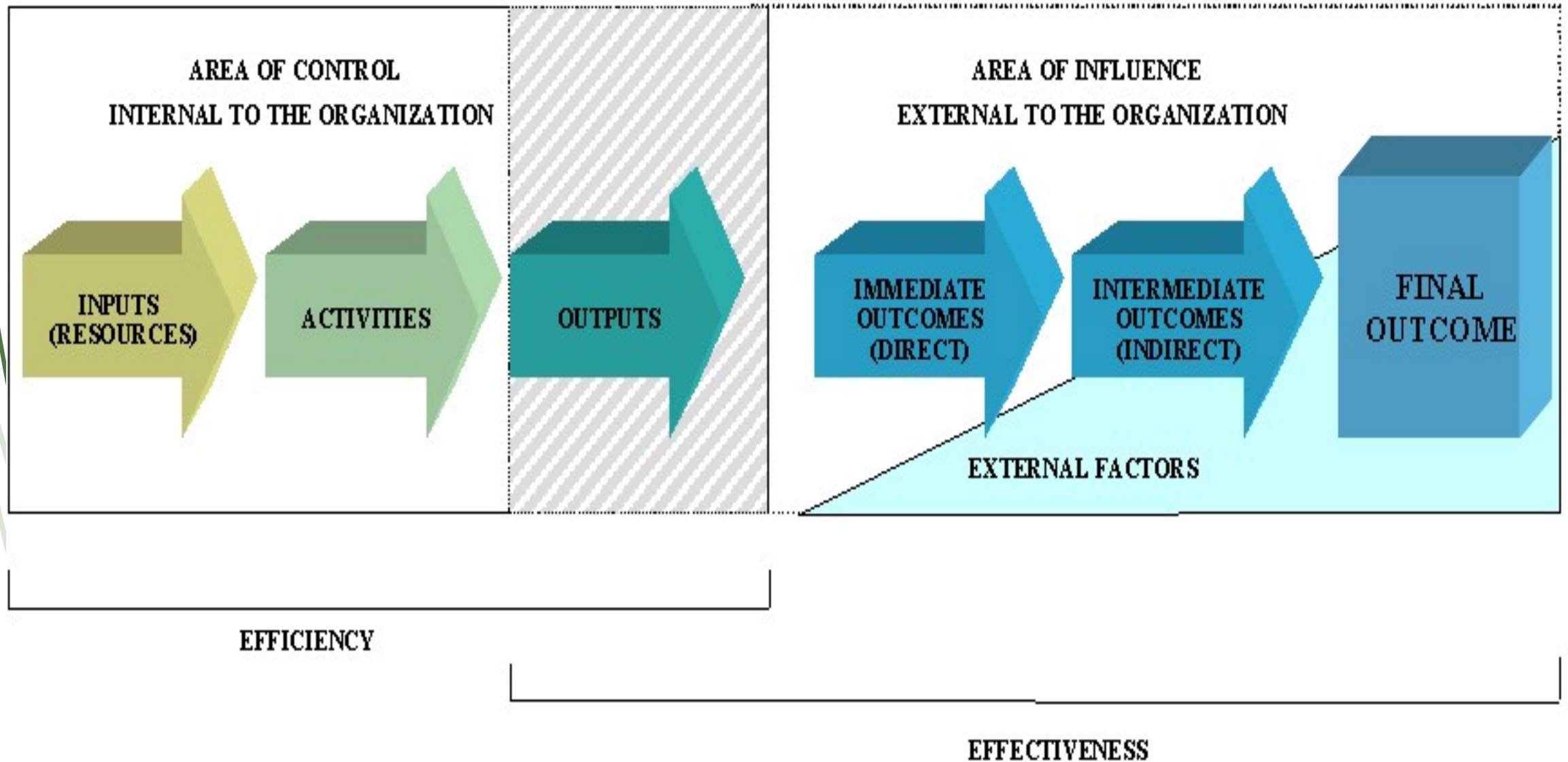
# Results-Based Management (3)

- ▶ Results-Based management facilitate the systematic thinking about three questions:
  - ▶ What is our goal, are we doing the right thing?
  - ▶ How we will reach that goal? “Are we doing it right”?
  - ▶ How do we know whether we have achieved our goal and that we are doing it right?

# Key Terminology used in Results-Based Management

- **Impact** = improvement in people's lives - long-term widespread improvement in society
- **Outcome** = changes in institutional and behavioral capacities - intermediate effect for beneficiaries
- **Deliverables: Outputs** = capital goods, products and services produced
- **Activities/process** = tasks undertaken to transform inputs into outputs
- **Inputs** = human and material resources

# Results-Based Management





# Results- Based Monitoring

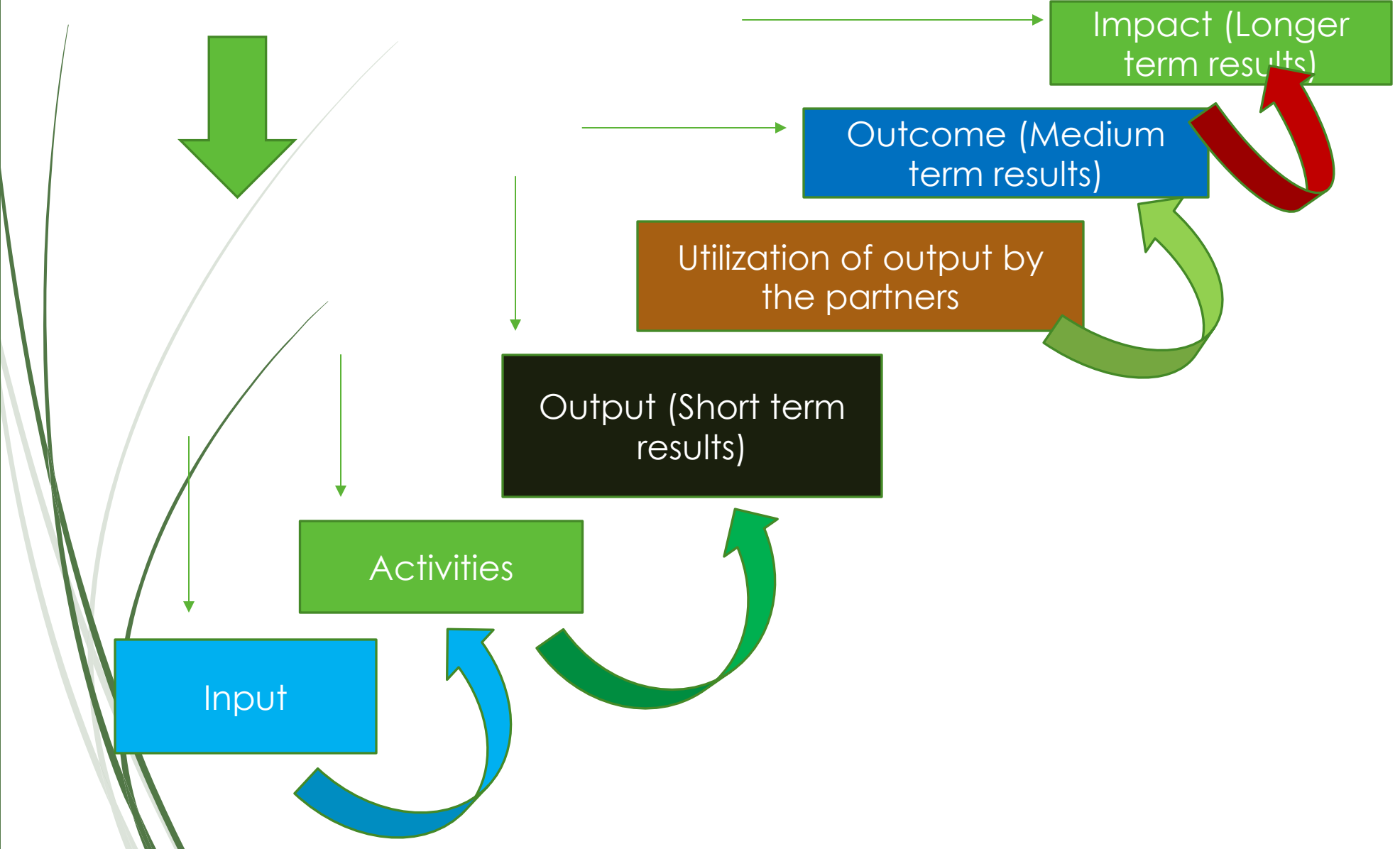
- ▶ A results-based approach aims to improve management effectiveness and accountability by:
- ▶ defining realistic expected results
- ▶ monitoring progress toward the achievement of expected results
- ▶ integrating lessons learned into management decisions and
- ▶ reporting on performance



# Monitoring Evaluation and Learning

- ▶ Learning tools can be:
- ▶ Summarized studies and publications on lessons learned
- ▶ Case studies documenting successes and failures
- ▶ Publicity material including newsletter, radio and television programme
- ▶ Building up of national and regional learning networks
- ▶ Periodic meeting and workshops to share knowledge and lessons learned
- ▶ Research extension liaison or feedback meetings
- ▶ National and regional study tours
- ▶ Preparation and distribution of technical literature on improved practices
- ▶ Routine supervision missions, mid term review or evaluations and project completion (end of project) reports

# Input, Output, Outcome and Impact



# Example: Agricultural Innovation Program (Vegetables)

| Narrative Summary  | Performance standards   | Means of Verification       | Critical Assumption                          |
|--|---|-----------------------------|--|
| <p><b>Output</b></p> <p>Farmers are using best suited varieties to protected cultivation, high value crops, improved IPM practices and improved protected cultivation structures / practices reduced cost and increased yield.</p>   | <p>A community-based varietal testing system has been set up between farmers, public and private sectors to rapidly and widely test new crop varieties. Pesticide use in protected cultivation systems has been reduced by 10 percent. At least two new crops identified with high returns for particular locations. Improved protected cultivation systems that offer increased stability and longevity, better insect exclusion, improved water management and a greater length of cropping season.</p> |                             | <p>There are no security concerns</p>        |
| <p><b>Activities</b></p> <ol style="list-style-type: none"> <li>1. Identify and promote the best varieties of crops commonly grown under protected cultivation</li> <li>2. Improved insect and disease management to reduce pesticide use in protected cultivation</li> <li>3. Identify and promote new crops for protected cultivation with higher economic returns</li> <li>4. Identify and promote improved protected cultivation systems.</li> </ol> | <p>Trials have been established through involvement of provincial partners, private companies, service providers and farmers.</p>   | <p>The baseline surveys</p> | <p>The climatic conditions are favorable</p> |

# Example: Agricultural Innovation Program (Vegetables)

| Narrative Summary   | Performance standards  | Means of Verification                                     | Critical Assumption                    |
|---|--|---|--|
| <b>Goal</b><br>Pesticide use has been reduced by 10 percent and 2000 household's income has been increased by 10 percent through Improved protected cultivation system.   | A total of 1000 farmers have successfully adopted new crops or varieties and improved IPM & management practices.  | The project M&E reports                                   | The political situation remains stable |
| <b>Purpose</b><br>The crops grown under protected cultivation systems have become more diversified, with reduced pesticide use and more efficient management practices.   | A total of 2000 farmers ready access to the varieties and are aware of high value crops while 1000 farmers have successfully adopted new crops or varieties, improved IPM and management practices / structure to reduce pesticide use.  | Follow up surveys, project progress and financial reports | There is no natural calamity           |
| <b>Output</b><br>Farmers are using best suited varieties to protected cultivation, high value crops, improved IPM practices and improved protected cultivation structures / practices reduced cost and increased yield.   | A community-based varietal testing system has been set up between farmers, public and private sectors to rapidly and widely test new crop varieties. Pesticide use in protected cultivation systems has been reduced by 10 percent. At least two new crops identified with high returns for particular locations. Improved protected cultivation systems that offer increased stability and longevity, better insect exclusion, improved water management and a greater length of cropping season. |   | There are no security concerns         |
| <b>Activities</b> <ol style="list-style-type: none"> <li>1. Identify and promote the best varieties of crops commonly grown under protected cultivation</li> <li>2. Improved insect and disease management to reduce pesticide use in protected cultivation</li> <li>3. Identify and promote new crops for protected cultivation with higher economic returns</li> <li>4. Identify and promote improved protected cultivation systems.</li> </ol> | Trials have been established through involvement of provincial partners, private companies, service providers and farmers.   | The baseline surveys                                      | The climatic conditions are favorable  |





## Conclusions and Recommendations

- ▶ Practice with various examples
- ▶ Importance of M&E in project implementation
- ▶ Log frame and results framework development



Thank you