

**ARD 202: PLANNING, MONITORING AND EVALUATING IN AGRICULTURAL  
EXTENSION PROGRAMMES**

**Course outline**

**Module one: Planning and Extension Program.**

- 1.1: Definition Extension Program Planning
- 1.2: Assumptions on Extension Program Planning
- 1.3: Rationale of Extension Program Planning
- 1.4: Principles of Extension Program Planning
- 1.5: Approaches in Extension Program Planning
- 1.6: Stages and Models in Extension Program Planning

**Module two: Managing an Extension Program**

- 2.1: Introduction of Management
- 2.2: Philosophy of Management
- 2.3: Management Functions

**Module three: Monitoring and Evaluation of Extension Programme**

- 3.1 Monitoring and Evaluation of Extension Program.
- 3.2 Definition of Monitoring and Evaluation
- 3.3 Monitoring and Evaluation of Extension Program

## Introduction

In developing and delivering extension program, the most important elements are the different phases of implementing it. However, extension planners throughout the world faced difficult challenges in program development as they become responsive to the needs of the rural communities. A way to overcome these challenges is by analyzing the phases, processes and functions of implementing extension program. To understand these, there are basic concepts that need to be discussed such as: "What is an extension program?" and "Are there distinctive features involved in extension program?

Several literatures have defined extension program, its characteristics and elements. Table 1 shows the list of the definitions of the concept according to different authors, organizations and extension practitioners.

**Table 1: Definition of Extension Programme Definition over the years**

Author or Organization	What is an Extension Program?
Kelsey and Hearne (1949)	It is a statement of situation, objectives, problems and solutions. <i>Programmatic</i>
US Department of Agriculture (1956)	It is arrived at cooperatively by the local people and the extension staff and includes a statement of (a) the situation; (b) the problems that are part of the local situation; (c) the objectives and goals of the local people in relation to these problems; and (d) the recommendations or solutions to reach these objectives on a long-time basis or on a short time basis.
Leagans (1961)	It is a set of clearly defined, consciously conceived objectives or ends, derived from an adequate analysis of the situation, which are to be achieved through extension teaching activity.
Lawrence (1962)	It is the sum total of all activities and undertakings of a county extension services which includes: (a) program planning process; (b) written program statement; (c) plan of work; (d) program execution; (e) results; and (f) evaluation. <i>DA</i>
Forest and Baker (1994)	It is a set of purposeful, planned and interrelated experiences to reach our educational objectives and to solve problems.
Israel, Harder and Brodeur (2011)	It is a comprehensive set of activities that are intended to bring about a sequence of outcomes among targeted clients

From the above list of definitions, we can define extension program as a systematic written statement with situation, objectives, problems, target audience and solutions guided by extension activities.

Aside from various definitions, there are number of important principles that an extension program will be considered. These are the elements that characterized extension programs. Among other things, Diehl and Gonzalez (2014) enumerated the following: (1) Focus on the

needs of the target audience; (2) The intent to affect participant learning and behaviour outcomes; (3) Multiple activities that are comprehensive in nature; and (4) The presence of a formal evaluation (Israel et. al., 2011). On the other hand, Oakley and Garforth (1988) mentioned that an extension program is a written statement which contains the following four elements: (1) Objectives which the agent expects to be achieved in the area within a specified period of time; (2) Means of achieving the objectives; (3) Resources that are needed to fulfil the program; and (4) Work plan or the schedule of extension activities that will lead to the fulfilment of the program.

### **Module 1: Planning an extension programme**

#### **Unit 1: Planning an Extension Program**

The concept of extension program planning is important to consider in the entire program. It is regarded as an integral and important dimension to a systematized approach of solving issues in the community at a certain period of time. The most effective that planning achieves “is the greatest degree of performance of actions, motions or operations” (Boyle, 1965).

##### **1.1 Definition of Extension Program Planning**

Planning is a “dynamic act of reflecting about, thinking about, and choosing among various options regarding the destination (goals and objectives) and the route to journey (educational experience) we should follow to reach those destinations” (Forest and Baker, 1994). It offers opportunity to people to “participate” and “contribute” in the process. Therefore, it is understood that “planning extension programs has become an increasingly accepted practice among national authorities”

On the other hand, extension program planning is viewed as a process through which representatives of the people are intensively involved with extension personnel and other professional people in four activities: (1) Studying Facts and Trends; (2) Identifying problems and opportunities based on these facts and trends; (3) Making decisions about problems and opportunities that should be given priority; and (4) Establishing objectives or recommendations for future economic and social development of a community through educational programs.

Other literature defined extension program planning as the process whereby the people in the country, through their leaders, plan their extension program where the end result is a written program statement. While one author interpreted it as a continuous process, whereby farm people, with the guidance and leadership of extension personnel, attempt to determine, analyze and solve local problems. In addition, Olson (1962) described it as an organized and purposeful process, initiated and guided by agent, to involve a particular group of people in

the process of studying their interests, needs and problems, deciding upon and planning education and other actions to change their situation in desired ways and making commitments regarding the role and responsibilities of the participants.

Therefore, in the definitions presented above, it implies that extension program planning is a social process involving decisions to determine the target group of peoples' needs, problems, opportunities, resources and priorities to further understand and involvement of extension educationists and community representatives.

### **1.2 Assumptions on Extension Program Planning**

According to Boyle (1965), the concept of extension planning is based on number of assumptions. Below is the list of some of these assumptions:

1. Planning change is a necessary prerequisite to effective social progress for people and communities.
2. The most desirable change is predetermined and democratically achieved.
3. Extension education programs, if properly planned and implemented, can make a significant contribution to planned change.
4. It is possible to select, organize and administer a program that will contribute to the social and economic progress of people.
5. People and communities need the guidance, leadership and help of extension educators to solve their problems in a planned and systematic way.

Based on the assumptions presented above, extension planning delved on planned change and progress of people by people. It has a logical sequence of action in solving problems to be administered for the people. Thus, extension planning is all about guided activity to bring change to a particular group of people.

### **1.3 Rationale of Extension Program Planning**

Kelsey and Hearne (1949) mentioned the following rationale for a planned extension program. Therefore, a sound extension program planning:

1. Is based on analysis of the facts in the situation;
2. Selects problems based on needs;
3. Determines objectives and solutions which offer satisfaction;
4. Reflects performance with flexibility;
5. Incorporate balance with emphasis;
6. Envisages a definite plan of work;
7. Is a continuous process;
8. Is a teaching process;

9. Is a coordinating process;
10. Involves local people and their institutions; and
11. It provides for evaluation of results.

It is observed that planning program is an integral part of the development process and ensures better and efficient utilization of resources, accountability and human development.

Meanwhile, other rationales of program planning are the following:

- ☛ 1. **Progress requires a design:** As design is established through the education of extension workers who will make a plan of action for progressive and careful planning.
- ☛ 2. **Planning gives direction:** Planning is one of the most important tasks in extension that has five factors to consider: purpose, needs, learning environment, sources of information and requirements.
- ☛ 3. **Effective learning requires a plan.** Successful extension learning requires an objective to achieve. This must be developed from the extension professionals and the group of people concerned.
- ☛ 4. **Planning precedes action.** It is mentioned that the result of action depends on how you answer the questions involved in the planning process. These questions are the following: (a) What information do farm men and women need most? (b) Which kind of information shall be extended (c) What information shall be extended first? (d) How much time shall be devoted to this line of work? (e) How much effort shall be devoted to this line of work?

## Unit 2: Principles of Extension Program Planning

Sandhu (1965) identified a set of principles that maybe applied in developing countries. The discussion will be divided into two parts: (1) as a program and (2) as a process.

### 2.1. As a Program

A. Extension program planning is based on analysis of the facts in a situation. It is important to take into account the factors or aspects in lands, crops, economic trends, social structure, economic status, tradition and culture should be considered as facts. As this principle believes in "Extension knows, if need be, the surer way is to effect cultural change by the slow but certain process of education."

B. Extension program planning selects problems based on people's needs. Extension program must meet the felt needs of the people (Brunner, 1945). It is very significant to identify problems highlighting the needs of the target group of people. Extension workers must adopt the subject matter and teaching strategy based on the learning level of the target group of peoples' needs and interests.

C. Extension program planning determines definite objectives and solutions which offer satisfaction. The objectives and proposed solution in the work plan must be flexible as the how the changes evolved from planning to implementation of extension program.

D. Extension program planning has permanence with flexibility. A program should be prepared with long-term goals in mind but must be flexible enough to meet the changing needs and interests of the people.

E. Extension program planning has balance with emphasis. In planning, comprehensibility of understanding the target group of peoples' needs and interests matter. Efficient distribution of time and effort to solve a particular needs and problems must be carried out to the extension professionals' attention.

## 2.2 As a Process

A. Extension program planning has a definite plan of work. Good organization and careful planning for action is the key to outline a procedure based on the efficiency of its execution in the entire program. Plan of work will be further discussed in the stages involved in extension program planning.

B. Extension program planning is an educational process. Participation to surveys, interviews and other methodologies is part of the educational process in planning. As an extension planner, they must perceive the following activities as a learning process: gaining knowledge, finding facts, recognizing problems, stating problems and proposing possible solutions.

C. Extension program planning is a coordinating process. It is part of the planning process to extension professional to cooperate and coordinate <sup>with</sup> interested leaders, groups and other agencies to work together for an integrated program.

D. Extension program planning is a continuous process. Extension in a changing society must adjust and plan for the future by keeping the choice of the target group of people, be flexible to new problems, work with people in seeking practical solutions and keep abreast of technological and social change (Sutton, 1961)

E. Extension program planning involves local people and their institutions. Aside from the partners and agencies involved in the process, it is inevitable to involve local people and let them participate in the program planning process.

F. Extension program planning provides for evaluation of results. Extension program planning and evaluation go together (Matthews, 1962). Evaluation is important to know and decide whether the program objectives during the planning process are achieved.

### **2.3 Approaches in Planning Extension Program**

After discussing the principles, assumptions and rationale behind planning extension program, the most important aspect in planning are the approaches involved in it. All organizations working for agricultural development have their own procedures for planning. When considering the planning of extension programs, there are three different approaches that can be distinguished: top down or planning from above, bottom up or planning from below and the combination of both approaches.

#### **A 1. Top down or Planning from Above Approach**

This approach is also known as blueprint planning and centralized approach. It is a conventional way of developing a program wherein the agent is simply expected to implement plans made at national level. It is the government institutions holding the mandate of an extension program that strictly follows the policy of the national government. Therefore, this approach is best utilized in the transfer of technology. One good example is the case of disseminating artificial insemination for dairy cattle to improve the best breeding practices. The dissemination policy came from the National Dairy Authority (NDA) of the Department of Agriculture (national level) down to local level and different dairy cooperatives.

According to Dusseldorf and Zijderveld (1991), this approach has clearly defined and generally accepted objectives; detailed and précis knowledge of the process to be implemented in order to reach the objectives; has political will to use available power and resources; and has a predetermined timetable and resources. Nevertheless, this approach has advantages and disadvantages. Its' advantages are it facilitates management, monitoring and evaluation tasks smoothly because of defined activities and well-identified chain of responsibilities and duties. While its' disadvantages are it does take into account the aspect of socio-cultural environment. It is agency-centered and programs are based on institutional policies and philosophy. It is rigid and assumes high level of stability. Thus, it does not acknowledge the changing needs of the people.

#### **2. Bottom up or Planning from Below Approach**

This approach is also known as decentralized and participatory planning process. The farmers together with extension agents make plans for developing local agriculture on the basis of local needs and potential, and then make requests for specific assistance from national and state authorities. This approach is commonly used by non-government organisations (NGO) and private agencies. The guiding principle behind is the participatory approach in which the ultimate goal of the program is to increase the power of the local actors. It is possible by

planning and implementing their own improvements where development is long a term process and personnel should acts as partners/facilitators rather than experts. In addition, participation in local actors is stressed and have more time on needs identification and project preparation with the active involvement of the intended beneficiaries.

This approach has advantages and disadvantages too. Its' advantage are it is open and process-centered, embraces error as a learning factor and leads to programs and project with an emergent nature. However, its' disadvantages are activities start without predefined objectives that led to confusion for the participants and recipients of extension intervention; the success is dependent among the local actors, thus, it's very difficult if they will not participate well. Lastly, the overall practice of this approach is in contrast with the conventional that may result to complications to the relationships among funding agencies.

### 3. Combination of the Two Approaches

Successful extension programs should include both planning approaches: combination of bottom-up and top-down. National policies and program provide a framework that guide an extension agent plans the local programs and establish priorities which local level follows.

#### 2.4 Stages in Extension Program Planning

There are five distinct stages that can be identified in extension program planning:

1. *Analyze the present situation.* This stage utilizes situational analysis by identifying farming problems and their causes must be understood and the natural, human and other resources in the area. The purpose of this stage is to determine the needs by learning the difference between farmers. This stage has three activities such as: collecting facts, analyzing facts and identifying problems and potential.

In collecting facts, it vary from different sources depending on the situation you are dealing with for example, social structure, culture, farming systems, education, size of farms, channels of communication, transport facilities, crops and livestock. Facts may be obtained from surveys and interviews to the target group of people or even to the supporting agencies and organizations. However, to analyse those facts require an explanation. You have to understand the difference between facts, opinion and wild guess.

After collecting and analyzing the facts, you may now identify the main problems.

Below are the criteria to setting prioritization among the farmers' needs and problems.

*There must  
be a problem*

#### **2.4.1 External Criteria about farmers' situation**

1. Actual needs are based on urgency, size of the gap, number of affected individuals and sequence of actions.
2. Readiness of the farmers to the proposed solutions.
3. Market strength includes the relationship of the extension organization's mission and the local groups to the identified needs

#### **2.4.2 Internal Criteria about extension organizational structure**

1. Qualifications, interest of the staff.
2. Research and knowledge based
3. Likelihood of internal adjustments

A checklist for situational analysis is stated below.

1. Describes the current condition
2. Identifies need/problem/opportunity or emerging issues
3. Includes supporting data and documentation of needs
4. Includes indicators of severity/scope of needs
5. Includes benchmarked data
6. Establishes clear justification of the program
7. Describes primary audience, number and geographic location
8. Indicates a gap between "what is" and "what could be"
9. Indicates needed research

**2. Set objectives for the extension program.** The key questions in this stage are how will local problems be solved and how will local potential be developed. Solutions will require clear, realistic objectives.<sup>1</sup> There are three stages involved in this stage: finding <sup>①</sup> solutions, selecting <sup>②</sup> solutions, stating <sup>③</sup> objectives.

The sources of ideas for solution is to develop an area's potential including the agent's own technical knowledge, farmers and agents from other areas who have tackled similar problems successfully, applied research which tests new ideas under farm conditions and national priorities and directives; and projects which make funds available for particular activities. The proposed solutions should be acceptable to farmers in the area, technically sound and tested by research and experience elsewhere, consistent with national policy and with the local activities of other agencies, feasible within the time and with the resources available to farmers and the extension service and within the scope of the agent's ability and job description. While there are three components of stating the objectives: intended participants of the program, content of the program and the desired change after the teaching-learning

process is completed. Commonly, objectives should address three behavioural changes in cognitive, affective and psychomotor.

Below is the checklist in developing objectives:

1. Relate directly to need/problem/opportunity
  2. Fit the broader priorities and goals of extension and the farmers
  3. Identify what specific client will accomplish or improve
  4. Reflect realistic expectations for farmers given time and resources available
  5. Describe expected result in measurable terms
  6. Provide directions for type, design and sequence of learning experience needed
  7. Understandable and can be communicated clearly
3. ***Develop the program.*** When an extension agent is completed in the objectives, compilation of the overall annual work plan is required. It does not specify what specific activity per day but must indicate the start and end date of each activity as well as the resources needed in the extension program. An example of a work plan in Table 2.

<b>Problem</b>	Local shortage of staple food.
<b>Potential</b>	Some local farmers have increased maize yields by 30-40 percent by using improved seed and animal manure most farmers have plenty of manure but do not use it.
<b>Solutions</b>	A Increase size of small farms and introduce labour-saving techniques -not feasible; no access to additional land B Encourage larger, mechanized farms to grow more food crops -not acceptable: poorer farm families could not buy the food buy the food. C Enable smaller farmers to increase yields -feasible, using better varieties and tested husbandry improvements
<b>Preferred solution C</b>	
<b>Objective</b>	Raise yields by 30 percent on 20 percent of the farms in the area in the first year
<b>Intermediate objectives</b>	50 percent of farmers will learn of the benefits, and will acquire the skill, of using manure. 50 percent of farmers will learn the benefits of new varieties. 20 percent of farmers will plant improved varieties.
<b>Plan of work</b>	-Establish demonstration plots on ten farms -Hold public meetings and film shows in ten villages to show the benefits of new varieties and improved husbandry. -Hold method demonstrations of manuring and correct spacing at the appropriate times -Visit farms during planting season -Hold result demonstrations on selected plots to encourage more farmers to try the new varieties and practices next year.
<b>Support Needed</b>	-Subject Matter Specialits to speak at public meetings attend demonstrations and answer farmers' questions -Adequate supplies of seeds, at the right time, at local stores -Farm broadcasts to include relevant items at the appropriate time and year

4. *Implement the program by putting the work plan into effect.* An extension program should be flexible enough to allow the agent to respond to circumstances in this way. This stage could be further divided into 2 sub-phases: the Plan of Work and the Execution of Plan of work. The Plan of work must specify the activity, required resources, place of action, persons participating, time to implement and expected results prepared by the extension personnel. On the other hand, the execution of plan of work can be determined through people change their attitudes and learning improved skills.

5. *Evaluate the program.* The purpose of this stage is to know the influence of extension activities to the group of people.

## **Module 2: Managing an Extension Program**

Managing extension program is one of the borrowed extension concepts. Management is defined as “the process by which people, technology, job, tasks and other resources are combined and coordinated so as to effectively achieve organizational objectives” On the other hand, an extension manager is “the person who is vested with formal authority over an organization or one of its sub-units”. An extension program manager is the person who vested with formal authority to access information, devise strategies, make decisions and implement actions.

### **Unit 1: Philosophy of Management**

Management functions have guiding principles and approach focusing on the following:

1. Developing and clarifying mission, policies and objectives of the agency or organization.
2. Establishing formal and informal organizational structures as a means of delegating authority and sharing responsibilities.
3. Setting priorities and reviewing and revising objectives in terms of changing demands.
4. Maintaining effective communications within the working group, with other groups, and with the larger community.
5. Selecting, motivating, training and appraising staff.
6. Securing funds and managing budgets; evaluating accomplishments and;
7. Being accountable to staff, the larger enterprise, and to the community at large.

#### **1.1 Management Functions**

Management functions can be categorized using the acronym POSDCORB. Table 3 shows the summary of the management functions and its description.

**Table3. Management Functions in Extension Program**

<b>Management Functions</b>	<b>Concept Description</b>
Planning	Includes outlining philosophy, policy, objectives and resultant things to be accomplished and the techniques for accomplishment.
Organizing	Occurred when establishing structures and systems through arranged, defined and coordinated activities in line with the program objectives.
Staffing	Attained by fulfilling the personnel function, which includes selecting and training staff and maintaining favourable work conditions
Directing	Encountered when making and embodying decisions in instructions and serving as the leader of the enterprise.
Coordinating	<b>Happened by interrelating the various parts of the work.</b>
Reporting	Keeping those to whom an extension manager is responsible including the staff and public.
Budgeting	Making financial plans by maintaining accounting and managing control of revenue and keeping costs in line with the program objectives.

1. **Planning** has different types depending on the organization size and type. There are four major types of planning exercises: strategic, tactical, contingency and managerial. Strategic planning is usually at the top management involving the determination of organizational goals and the activities to achieve them. Tactical planning, on the other hand, is similar strategic planning but with the involvement of the middle and lower is concerned with implementing the strategic plans and involves middle and lower management. Contingency planning deals with the preparation to future problems and issues. Lastly, managerial planning is a micro-level planning that helps in combining resources to fulfil the overall objectives of the extension organization.

As discussed in planning an extension program, needs assessment is the first step in the process. Afterwards, establishing the extension organization philosophies including the mission, vision and goals are inevitable. Generally, planning also involves policy formation into two ways. Policies play a complex role in implementing organizational policies by top management. Thus, an extension manager must endow with good decision making skills that need to be made for alternatives and consequences. However, decision-making in extension is often a group process. The following steps are used in decision making:

- (1) Identifying and defining the problem;
- (2) Developing various alternatives;
- (3) Evaluating alternatives;

- (4) Selecting an alternative;
- (5) Implementing the alternative; and
- (6) Evaluating both the actual decision and decision-making process.

2. **Organizing** is a process based on five organizing principles: unity of command, span of control, delegation of authority, homogeneous assignment, and flexibility. This process provides directions in achieving the plans. Various aspects such as time organization, degree of centralization and role specification must look into. In addition, there are five steps involved in organizing extension programs:

- (1) Determining the tasks to be accomplished;
- (2) Subdividing major tasks into individual activities;
- (3) Assigning specific activities to individuals, providing necessary resources; and
- (4) Designing the organizational relationships needed.

Effective extension managers facilitate planning and managing by having organizational structure wherein there is a delegation of authority and someone has span of control

3. **Staffing** consists of human resource planning and recruitment process. An extension manager must know how to find the right people in an extension program. Thus, an extension manager must know the process in staff selection as well as staff orientation.

4. **Directing** is a management function focuses on directing to lead. It is more of leadership capacity rather than pushing things. A good extension manager is a leader who knows how to direct the people to do their best ability for a successful extension program.

5. **Coordinating** involves interrelated responsibilities among the people involved in an extension program. It must be effective with open and two-way channels of communication. In extension, the formal systems of coordination happened in the community through multi-way flow of information.

6. **Reporting** includes the preparation of annual reports to summarize the program achievements. This is essential to extension managers as they can review during the reporting the process if they meet the program objectives.

7. **Budgetting** reiterates specific plans on accounting, revenue and expense controls. Most organizations have their own budget system based on historical data, management by objective system, program review and evaluation technique.

However, the key elements of any budget system consist of:

- (1) determining what line items are necessary in terms of objectives;
- (2) in line with policies, determining the financial amounts for each line;
- (3) determining overhead, surplus, and/or profit margins;

- (4) determining anticipated revenue from fees, grants, gifts, contracts;
- (5) drafting a budget with specific amounts and justifications; and
- (6) discussing and making adjustments to produce a working budget.

Extension organizations main goal is to promote change. In managing extension programs, extension managers must know the efficient management skills and functions to adapt to the changing needs of the people. Management of extension program can be defined as “the rational assessment of a situation and the systematic selection of goals and purposes; the systematic development of strategies to achieve these goals; the marshalling of the required resources, the rational design, organization, direction, and control of the activities required to attain the selected procedures. The responsibilities an extension manager has must engaged on building and maintaining relationships, getting and giving information, influencing people and decision making.

### **Module 3: Definition of Monitoring and Evaluation**

#### **Unit 1: Monitoring and Evaluation of Extension Programme**

Monitoring is an integral and important part of a management information system. Managers require information to keep track of an extension programme and to guide its course of action. Monitoring is a continuous process of collecting and analyzing information to compare how well a project, programme or policy is being implemented against expected results. Monitoring is supervising activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets.

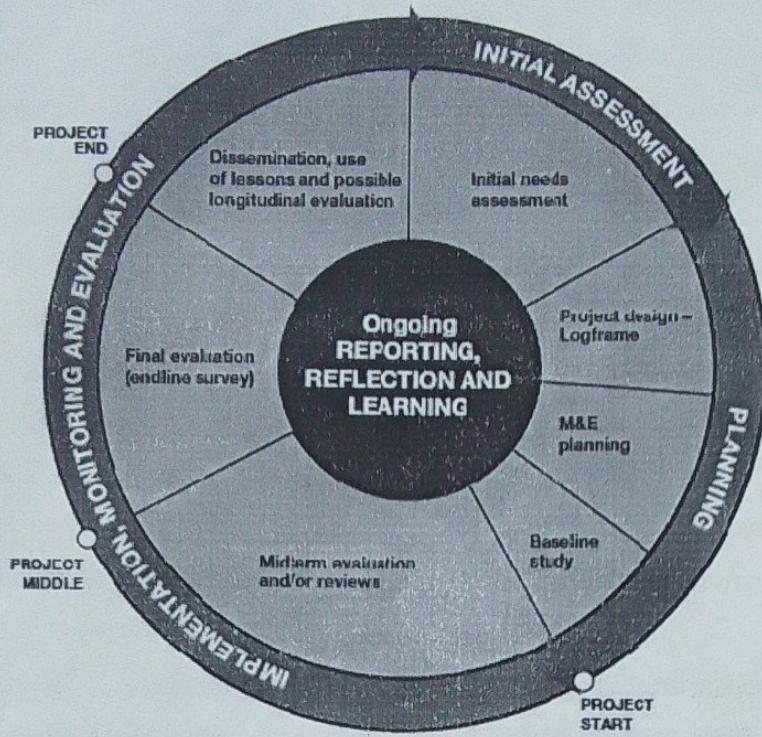
Evaluation on the other hand is the systematic collection of information about activities, characteristics, and outcomes of projects to make judgments about the project, improve effectiveness, and/or inform decisions about future programming

**Table 4. Differences between monitoring and evaluation**

	<b>MONITORING</b>	<b>EVALUATION</b> — <i>Erres</i>
Definition	Ongoing analysis of project progress towards achieving planned results with the purpose of improving management decision making.	Assessment of the efficiency, impact, relevance and sustainability of the project's actions.
Who	Internal management responsibility	Usually incorporate external agencies
When	On Going	Usually at completion but also at mid-term, ex-post and ongoing.
Why	Check progress, take remedial action, and update plans.	Learn broad lessons applicable to other programs and projects. Provides accountability.

**Table 5. Summary of differences between monitoring and evaluation**

	Monitoring	Evaluation
Timing	Continuous throughout the project	Periodic review at significant point in project progress – end of project, mid point of project, change of phase
Scope	Day to day activities, outputs, indicators of progress and change	Assess overall delivery of outputs and progress towards objectives and goal
Main participants	Project staff, project users	External evaluators / facilitators, project users, project staff, donors
Process	Regular meetings, interviews, monthly, quarterly reviews, etc.	Extraordinary meetings, additional data collection exercises etc.
Written outputs	Regular reports and updates to project users, management and donors	Written report with recommendations for changes to project – presented in workshops to different stakeholders



**Figure 1. Monitoring and Evaluation in the Program and Project Cycle**

### **Unit 2: Myths about Evaluation**

1. Evaluate only when mandated. Many funded programmes require evaluation as a form of accountability. However, it is a myth that evaluation should occur only if it is mandated.
2. Evaluation is an add-on. It is a myth that evaluation is an add-on activity or at most a pre-test with a post-test. It is most meaningful when it is integrated with decision making at every stage of programme planning and operation.
3. Evaluation is an activity for experts. It is a myth that evaluation should be undertaken only by technical experts. Yes, complex methods can be used; however, systematic evaluation can be undertaken by inexperienced managers, and specialists and educators themselves can be helped to critique their own work.
4. Outside evaluators are best. It also is a myth that evaluation should be done only by external, outside, objective evaluators. Yes, external evaluators are often useful in challenging insiders to address what they have overlooked because of their nearsightedness.
5. There is one best evaluation approach. Still another myth is that there is one best way to conduct an extension evaluation. Some approaches are probably better than others for addressing particular types of questions or concerns. However, the many types of evaluation approaches have their own strengths and limitations.

6. Quantitative data are best. A mixed-methods approach combining qualitative and quantitative methods can lead to better understanding and appreciation of phenomena under evaluation and provide triangulation, convergence, and corroboration of results from different methods.

### **Recognizing the politics of evaluation**

Evaluations are never valued neutral. Political implications are always present because stakeholders have interests to defend. In this sense, all evaluations are political. Therefore, it is very important to know the values, expectations, and interests of the stakeholders at the outset. Probably the most crucial political question that evaluation can raise is, "Who benefits most from extension programmes?" This question is political, because the answer often reflects class and economic privilege, ethnic or racial dominance, and gender interests and relationships between staff and various sectors of the population of farmers.

### **Unit 3: Purpose of Monitoring and Evaluation**

1. Provide constant feedback on the extent to which the projects are achieving their goals.
2. Identify potential problems at an early stage and propose possible solutions.
3. Monitor the accessibility of the project to all sectors of the target population.
4. Monitor the efficiency with which the different components of the project are being implemented and suggest improvements.
5. Evaluate the extent to which the project is able to achieve its general objectives.
6. Provide guidelines for the planning of future projects.
7. Influence sector assistance strategy. Relevant analysis from project and policy evaluation can highlight the outcomes of previous interventions, and the strengths and weaknesses of their implementation.  
*from a test of the soundness of project obj's*
8. Improve project design. Use of project design tools such as the log frame (logical framework) results in systematic selection of indicators for monitoring project performance. The process of selecting indicators for monitoring is a test of the soundness of project objectives and can lead to improvements in project design.  
*(beneficiaries) and encourage of project obj's*
9. Incorporate views of stakeholders. Awareness is growing that participation by project beneficiaries in design and implementation brings greater "ownership" of project objectives and encourages the sustainability of project benefits. Ownership brings accountability.  
*of project obj's*
10. Show need for mid-course corrections. A reliable flow of information during implementation enables managers to keep track of progress and adjust operations to take account of experience (OED).

## **Types of Monitoring and Evaluation of Extension Programme Studies**

**A needs assessment:** Focuses on identifying needs of the target audience, developing a rationale for a program, identifying needed inputs, determining program content, and setting program goals. It answers the question:

1. *What do we need and why?*
2. *What does our audience expect from us?*
3. *What resources do we need for program implementation?*

**A baseline study:** Establishes a benchmark from which to judge future program or project impact. It answers the questions:

1. *What is the current status of the program?*
2. *What is the current level of knowledge, skills, attitudes and beliefs of our audience?*
3. *What are our priority areas of intervention?*
4. *What are our existing resources?*

**A formative, process, or developmental evaluation:** provides information for program improvement, modification, and management. It answers the question:

1. *What are we supposed to be doing?*
2. *What are we doing?*
3. *How can we improve?*

**A summative, impact, or judgmental evaluation:** Focuses on determining overall success, effectiveness, and accountability of the program. It helps make major decisions about a program's continuation, expansion, reduction, and/or termination. It answers the questions:

1. *What were the outcomes?*
2. *Who participated and how?*
3. *What were the costs?*

**A follow-up study:** Examines long-term effects of a program. It answers the questions:

1. *What were the impacts of our program?*
2. *What was most useful to participants?*
3. *What are the long-term effects?*

**Table 6. The Complementary Roles of Monitoring and Evaluation**

MONITORING	EVALUATION
Routine collection of information	Analyzing information
Tracking project implementation progress	Ex-post assessment of effectiveness and impact
Measuring efficiency	Confirming project expectations
Question: "Is the project doing things right?"	Question: "Is the project doing the right things?"

#### **Unit 4: Methods of Program Evaluation**

##### **1. Self-evaluation**

This involves an organization or project holding up a mirror to itself and assessing how it is doing, as a way of learning and improving practice. It takes a very self-reflective and honest organization to do this effectively, but it can be an important learning experience.

##### **2. Participatory evaluation**

This is a form of internal evaluation. The intention is to involve as many people with a direct stake in the work as possible. This may mean project staff and beneficiaries working together on the evaluation. If an outsider is called in, it is to act as a facilitator of the process, not an evaluator.

##### **3. Rapid Participatory Appraisal**

Originally used in rural areas, the same methodology can, in fact, be applied in most communities. This is a qualitative way of doing evaluations. It is semi-structured and carried out by an interdisciplinary team over a short time. It involves the use of secondary data review, direct observation, semi-structured interviews, key informants, group interviews, games, diagrams, maps and calendars

##### **4. External evaluation**

This is an evaluation done by a carefully chosen outsider or outsider team

#### **Methods of Gathering Data for Monitoring and Evaluation**

1. Interviews: These can be structured, semi-structured or unstructured. They involve asking specific questions aimed at getting information that will enable indicators to be measured. Questions can be open-ended or closed (yes/no answers). Can be a source of qualitative and quantitative information.

2. Key informant interviews: These are interviews that are carried out with specialists in a topic or someone who may be able to shed a particular light on the process.

3. Questionnaires: These are written questions that are used to get written responses which, when analyzed will enable indicators to be measured.
4. Focus Group Discussion: In a focus group, a group of about six to 12 people is interviewed together by a skilled interviewer/facilitator with a carefully structured interview schedule. Questions are usually focused around a specific topic or issue.
5. Community Meetings: This involves a gathering of a fairly large group of beneficiaries to whom questions, problems, situations are put for input to help in measuring indicators.
6. Field Workers Report: Structured report forms that ensure that indicator-related questions are asked and answers recorded, and observations recorded on every visit.
7. Ranking: This involves getting people to say what they think is most useful, most important, least useful.
8. Visual/Audio Stimuli: These include pictures, movies, tapes, stories, role plays, photographs, used to illustrate problems or issues or past events or even future events.
9. Rating Scales: People are usually asked to say whether they agree strongly, agree, don't know, disagree, disagree strongly with a statement. You can use pictures and symbols in this technique if people cannot read and write.
10. Critical Event/Incident Analysis: This method is a way of focusing interviews with individuals or groups on particular events or incidents. The purpose of doing this is to get a very full picture of what actually happened.
11. Participant Observation: This involves direct observation of events, processes, relationships and behaviours. "Participant" here implies that the observer gets involved in activities rather than maintaining a distance.
12. Self-Drawing: This involves getting participants to draw pictures, usually of how they feel or think about something.

### **Unit 5: The Monitoring Indicators**

Indicators, as the term suggests, are variables that help to measure changes in a given situation. There are different types of indicators, for example, development indicators, socioeconomic indicators, agricultural development indicators, and extension indicators.

**Table 7. The Locus of Evaluation and Criteria**

EXTERNAL EVALUATOR EXTERNAL CRITERIA	INTERNAL EVALUATOR EXTERNAL CRITERIA
EXTERNAL EVALUATOR INTERNAL CRITERIA	INTERNAL EVALUATOR INTERNAL CRITERIA

**Table 8. Example of Extension Performance Indicator**

<b>Extension Effectiveness Indicator</b>	
1. Awareness	No of farmers aware of Village Extension Workers (%)
2. Visit	No of visits by Village extension Workers to Farmers, 1) 2x/month, 1x/month and No visit
3. Field Meetings	No of meetings with Village Extension Workers with farmers in their field (%)
4. Regularity	No of meetings of Village Extension Worker with farmer on the fixed day (%)
Field day <i>field</i>	No of field days organized by the Village Extension Worker in a) preceding month, b) quarterly and c) annually (Average)
<b>Extension Effectiveness Indicator</b>	
6. Demonstration	No of a) Method demonstration, b) Result demonstration c) Method cum result demonstration organized by Village Extension Worker in i) preceding month, ii) quarterly and iii) Annually
7. Supervision	No of supervisory visits from Agricultural Extension Officers to Village extension Worker in the Field per month (Average)
8. Research-Extension Linkage	No of Research-Extension linkage workshops organized per month (Average)
9. Farmer Training	No of farmers trained in Farmers Training Center (Institutionalized Training Course) per year (Ave.)
10. Extension Effectiveness	No of meetings of Village Extension Worker with farmer on the fixed day (%)
11. Performance Index	Actual no. of farmers reached out of the target no. which should be reached (Casley and Lury, 1972)
12. Penetration Index	No of farmers adopting the recommended practice out of the actual no. reached (%)

## **Guide Questions in Conducting Monitoring and Evaluation**

1. Relevance: Do the objectives and goals match the problems or needs that are being addressed?
2. Efficiency: Is the project delivered in a timely and cost-effective manner?
3. Effectiveness: To what extent does the intervention achieve its objectives? What are the supportive factors and obstacles encountered during the implementation?
4. Impact: What happened as a result of the project? This may include intended and unintended positive and negative effects.
5. Sustainability: Are there lasting benefits after the intervention is completed.

## **Types of Performance Indicators**

1. Input Indicators. Input indicators measure the quantity (and sometimes the quality) of resources provided for project activities. Examples:

- a. Funding—counterpart funds, Bank loan funds, co-financing, grants
- b. Guarantees
- c. Human resources—number of person-years for members of the implementation unit, consultants, and technical advisers
- d. Training
- e. Equipment, materials, and supplies, or recurrent costs of these items—for example, textbooks, syringes, vaccines, classroom facilities

2. Output Indicators. Output indicators measure the quantity of the goods or services created or provided through the use of inputs. Examples:

- a. Clients vaccinated (by a health project)
- b. Farmers visited (an extension project)
- c. Miles of roads built (a highway project)
- d. Electricity generation and transmission facilities installed (a rural electrification project)
- e. Pollution control measures installed or incentives or regulations enforced (a pollution control or air or water quality improvement project).

3. Outcome and Impact Indicators. Outcome and impact indicators measure the quantity and quality of the results achieved through the provision of project goods and services. Examples:

- a. Reduced incidence of disease (through vaccinations)
- b. Improved farming practices (through extension visits)
- c. Increased vehicle use or traffic counts (through road construction or improvement)
- d. Increased rural supply and consumption of electricity (through expansion of electricity network)

- e. Reduced mortality or lower health costs (through improved family health practices or improved nutrition, or cleaner air and water)
4. Relevance Indicators. Relevance indicator measure trends in the wider policy problems that project impacts are expected to influence. Examples:
- a. Improved national health as measured by health indicators (through improved
  - b. health care, health system performance)
  - c. Increased farm profits and reduced food costs (through improved farming practices)
  - d. Reduced transportation costs and expanded economic development (through road construction or improvement)
  - e. Improved economic growth and enhanced consumer well-being (through expanded electrification, pollution controls, and other new technology).
5. Risk Indicators. Risk indicators measure the status of the exogenous factors identified as critical through the risk and sensitivity analysis (risk and enabling factors) performed as part of a project's economic analysis.
6. Efficiency Indicators. Efficiency indicators usually represent the ratio of inputs needed per unit of output produced. Examples: physical inputs, dollars, or labor required per unit of output.
7. Effectiveness Indicators. Effectiveness indicators usually represent the ratio of outputs (or the resources used to produce the outputs) per unit of project outcome or impact, or the degree to which outputs affect outcomes and impacts. Example:
- a. Number of vaccinations administered (or their cost) per unit decline in morbidity rate (illness prevented) or per unit decline in mortality rate
  - b. Number of farmers visited per measured change in farm practices (number of farmers adopting new practices), or number of farmers adopting new practices per unit increase in agricultural productivity
  - c. Miles of road built per unit increase in vehicle usage, or new road usage per unit decrease in traffic congestion.
8. Sustainability Indicators. Sustainability indicators represent the persistence of project benefits over time, particularly after project funding ends. Examples:
- a. Disease incidence trends after external funding for a vaccination project ends
  - b. Persistence of changed farming practices after extension visits are completed
  - c. Maintenance and use of roads after highway construction ends
  - d. Persistence of institutions (programs, organizations, relationships, and so on) created to deliver project benefits.

### **Criteria in Selecting Indicators**

1. Relevance. The indicators selected must be relevant to the basic sectoral development objectives of the project and, if possible, to overall country objectives.
2. Selectivity. The indicators chosen for monitoring purposes should be few and meaningful.
3. Practicality of indicators, borrower ownership, and data collection. If performance indicators are to meaningfully reflect a project's objectives, they should be selected jointly by the borrower and the Bank during participatory project preparation, and the data they measure should be useful to both project and country.
4. Intermediate and leading indicators. In the absence of more definite impact indicators, early pointers of development impact may be used during project implementation to indicate progress toward achieving project objectives.
5. Quantitative and qualitative indicators. To the extent possible, performance indicators should allow for quantitative measurement of development impact. For some projects, objectives (for instance, capacity building) it may be necessary to develop qualitative indicators to measure success, which should still allow credible and dispassionate monitoring.

### **Unit 6: Measuring Performance**

1. Direct Measures. Direct measures correspond precisely to results at any performance level. For instance, quantities of goods delivered or counts of clients served.
2. Indirect Measures. They are often used when direct measures are too difficult, inconvenient, or costly to obtain. Indirect measures are based on a known relationship between the performance variable and the measure chosen to express it. Examples:
  - a. Using lower farmgate prices as an indirect indicator of increased agricultural productivity.
  - b. Using reduced numbers of consumer complaints as an indirect indicator of improved customer processing.
3. Early pointers: intermediate and leading indicators. Intermediate indicators measure intermediate results or intervening steps toward project objectives. They usually measure changes associated with the ultimate impact sought but for which information can be obtained earlier. Examples:
  - a. Fertilizer purchase could be used as a preliminary indicator of changed farming practices.
  - b. Increased nutritional knowledge as an indicator of improved eating practices.

4. Quantitative and qualitative measures. Indicators of impacts, outcomes, outputs, and inputs are easily quantified, that is, measured by defined numerical values. These are typically the basis for calculations of economic rate of return or net present value during appraisal.
5. Measurement scope. Measurement scope refers to the use of sample populations. Performance indicators sometimes measure results directly for an entire target population through administrative records, observations, or census surveys.
6. Special studies. Special studies are formative evaluations of the fundamentals of problems and their origins, and in that way differ from monitoring indicators, which are part of an early warning system. Example:
  - a. Project managers might need to learn more about the causal links among project outputs, outcomes, and impacts, especially when indicators reveal that the broader purposes of a project are not being achieved even though its planned outputs are being delivered.

### **Action Plan and Chain of Events**

1. Planning and design of the study
2. Desk research
3. Selection of methods
4. Data collection and analysis
5. Report writing
6. Report presentation
7. Follow up action

### **Outline of Evaluation Report**

1. Executive Summary
2. Background of the program
3. Description of the Evaluation
4. Results/Findings
5. Discussions
6. Cost and Benefits
7. Conclusion
8. Recommendation
9. Appendix

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