The planning and evaluation of extension programmes

Extension programmes

In previous chapters, the methods and skills that an extension agent uses in his work with farmers and their families have been examined. It has been stressed that all extension activity requires careful planning if it is to be effective. No extension activity is planned in isolation; every demonstration, public meeting or film show is part of an overall extension programme through which an extension agent and farmers work toward the agricultural development of their area. In this chapter, a number of important principles that should guide the agent in planning and evaluating extension programmes will be considered.

An extension programme is a written statement which contains the following four elements:

**Objectives** which the agent expects to be achieved in the area within a specified period of time. This will often be a one-year period, to enable the agent to review the programme at the start of each farming year.

**Means** of achieving these objectives.

**Resources** that are needed to fulfil the programme.

**Work plan** indicating the schedule of extension activities that will lead to the fulfilment of the programme objectives.

An extension programme with clearly defined objectives is helpful to local farmers, the agent himself, his senior extension officers and other rural development agencies. For the farmers, it shows both what they can expect from the extension service and how effective the agent is. For the agent, the programme provides a firm basis for planning extension activities on a monthly and weekly basis and for anticipating well in advance what resources will be needed. Senior extension officers can use programmes to assess agents' performance, to offer advice for improvement and to justify requests for additional staff, equipment and funds. Furthermore, the programme helps other agencies to coordinate their activities with what the agent is doing. However, programmes can only be used in these ways if they are written and made available to all concerned.

A written programme is also useful when staff changes bring a new agent into the area. The new agent can use the programme to carry on from where his predecessor finished, thereby ensuring continuity of activities.

All organizations involved in agricultural development have their own procedures for planning, which can vary considerably. In particular, they can differ in the extent to which plans are made at national or local level. When considering the planning of extension programmes, two different forms can be distinguished.

**Planning from below.** Farmers, with their 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 regional authorities.
*Planning from above.* The agent is simply expected to implement plans made at national level. He may, for example, be given a target number of hectares to be planted with improved seeds, or a specified number of farmers' groups to set up.

Successful extension programmes should include both planning approaches. National policies and programmes provide a framework within which the agent plans his local programmes, and they establish priorities, which he must follow. If a national priority is to increase production of arable food crops rather than livestock products, the agent will give these crops a high priority in his own programme. National programmes will also make funds and inputs available for particular kinds of activity, which will influence the agent in his local planning decisions. But agricultural improvement comes from the willing action of farmers as they try to increase their own output and living standards. Local needs, therefore, provide the motivation for agricultural development, and must be taken into account in the planning of local extension programmes. Even in cases where the agent's freedom of decision is limited by national policy and directives, he must still prepare a programme that will enable him to fulfil these directives within his area.

**Extension programmes bring together national policies and local initiatives**

In planning his extension programme, the agent should, therefore, balance national and local requirements. On the one hand, he should take note of national objectives but on the other hand, he should also work with local people so that the programme that emerges is theirs, and reflects their needs and what they want to see happen in the area and on their farms. This local involvement in planning is an important part of the educational process of extension. It stimulates a close analysis of farming problems and helps to build up motivation and self-confidence in using local resources to tackle them.

In some countries, agents work with formal, local-level committees when planning extension programmes. However this local involvement is achieved, the agent must take care that those who are involved can really represent the views and interests of all groups in the area. Committees often contain a high proportion of the more progressive, larger-scale farmers and are therefore inclined to promote programmes that fit the interests of these particular groups.

**Stages in programme planning**

Whatever particular procedures for programme planning are laid down by the extension organization, five distinct stages can be identified.

*Analyse* the present situation.
*Set* objectives for the extension programme.
*Develop* the programme by identifying what needs to be done to achieve the objectives, and then prepare a work plan.
*Implement* the programme by putting the work plan into effect.
*Evaluate* the programme and its achievements as a basis for planning future programmes.

This will then lead to a review of the situation and the planning of a new programme, which should build on the achievements and learn from the failures of the previous one.
The different stages of extension programme planning are interrelated and the planning does not always proceed neatly from one stage to another. Provisional objectives, for example, may be set during the situation analysis stage, but they may later be altered as new facts are collected and a deeper analysis leads to fuller understanding of the situation. Objectives may have to be altered still further as unexpected difficulties arise while the programme is being implemented. However, it is useful for the agent to think of programme planning as involving these five activities, each of which will be considered in more detail, as each can be broken down into smaller steps.

**Situation analysis**

Before an extension programme can be draw up, the existing situation must first be analysed. Farming problems and their causes must be understood and the natural, human and other resources of the area identified. This stage involves three activities.

**Collecting facts**

There is a good deal of information that the agent will need about the people in the area, their farming systems, natural resources and the facilities available for local development. The agent will need information in order to have a good understanding of the situation with which he is dealing, for example, on social structure and local culture, farming systems, education and literacy levels, size of farms, local channels of communication, transport facilities, local credit systems, marketing, health and nutrition levels, and crops and livestock.

These facts can be collected from a variety of sources. Reports of soil classification and land-use surveys, farm management studies, social surveys and previous programmes can provide a lot of useful background information. If the agent keeps good records of the farms in his area, he will have at his fingertips much of the information he needs. He can also obtain a lot of his information from farmers and local leaders. At public meetings, in group discussions and in contact with individual farmers, the agent should listen, ask questions and gradually build up a fuller understanding of the social, agricultural and economic features of the area.

Detailed social and economic surveys require complex questionnaires and statistical analysis, and are best left to professional researchers. But simple questionnaires can be used in this fact-finding exercise and it is helpful if the extension organization provides a standard list of questions or facts as a guide to the agent. One way in which farmers can be brought into the planning process at this early stage is for them to do some of the fact-finding themselves, using simple check-lists and questionnaires, for example, to catalogue natural resources in the area.

**Analysing facts**

Facts do not speak for themselves. It is necessary to ask why things happen in the way they do. If farmers report that yields have declined in recent years, the agent must look for other information that would suggest an explanation. Is it because of low rainfall, declining soil fertility, or poor seed? The agent must also separate fact from opinion and guesswork. He may obtain conflicting information from two different sources, and must judge which is the more reliable.
Identifying problems and potential

It should now be possible to decide what the main problems facing farmers in the area are, and what potential there is for agricultural improvement. This is where the agent's technical knowledge becomes important. Farmers may know what their problems are, but the agent can bring his own perception of local problems based on a more scientific understanding of farming. He will be able to explain problems more fully and relate them to processes which farmers may not realize are in any way connected. Because of his training and experience, he will also have more suggestions to make about how the resources of the area could be used more productively.

Throughout the situation analysis, the agent should avoid either, relying totally on his own expertise when interpreting facts and identifying problems, or leaving it entirely up to farmers to define local needs and possibilities for change. It should be a joint effort, with agents and farmers bringing their own experience and knowledge together to reach a full understanding. If farmers are not fully involved in these activities, the agent runs the risk of misinterpreting facts, wasting time in analysis and, almost certainly, of failing to gain the full support of farmers for the programme.

A full situation analysis is not needed every year. The basic facts about the area and the people will, in most situations, not change very much from year to year. However, the agent should review basic information each year and decide which parts of it need to be updated.

Setting objectives

Once the existing situation has been analysed, decisions can be made about the changes that should be brought about through an extension programme. The key questions are how will local problems be solved and how will local potential be developed. Solutions will require clear, realistic objectives which should be set in three stages.

Finding solutions

In looking for solutions to local problems, the agent should distinguish between technical solutions, involving improved inputs or simple changes in husbandry practice, and solutions which involve institutional changes, such as improved credit and marketing systems. Solutions involving institutional changes may require action by other agencies and at higher levels. While the agent should certainly suggest such solutions to those responsible, there may be little that can be done locally in isolation.

The sources of ideas for developing an area's potential include:

- 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;
- national priorities and directives;
- projects which make funds available for particular activities.
Selecting solutions

When selecting from among the range of solutions and possible improvements, agent and farmers should ensure that proposed solutions are:

**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.  
**Within** the scope of the agent's ability and job description.

The agent may find that some problems will have no feasible or acceptable solution that can be implemented locally within the period of the extension programme. They may require legislation, action at other levels and by other agencies, or more research. The agent should lessen the effect of such problems where possible and act as a channel for putting forward the case for changes to those who have the power to make them.

Stating objectives

It should now be possible to state what the objectives of the extension programme are to be. But because his time and resources may be limited, the agent must decide which objectives have a higher priority than others. In doing so, he should consider national priorities and the size and distribution of the benefits that will arise from a given input of time and resources.

Wherever possible, objectives should be expressed in terms of amounts and numbers, rather than general statements. "Establish two groups of dairy farmers who will share new equipment and market their produce jointly", and "Increase the acreage of improved rice varieties from 60 to 120 acres" are more useful objectives than "Improve dairy farming techniques" or "Increase the use of improved rice seed". They give the agent firm targets to work toward, and a standard against which the effectiveness of the programme can be judged at the end of the year.

The objectives for an annual extension programme will state what should have been achieved by the end of the programme. These statements can be broken down into intermediate steps to be taken during the year in order to achieve the programme objectives. Again, the agent will have to make choices, selecting the most appropriate steps from several possibilities.

As the agent breaks down each programme objective into specific steps, he will in effect be preparing a schedule of extension activities for the programme period. He will decide what knowledge and skills the farmers will need; what additional technical information will be required from specialists and research workers; what extension methods should be used; and what resources and support he will need from his own and other agencies.
## DEVELOPING AN EXTENSION PROGRAMME

<table>
<thead>
<tr>
<th>Problem</th>
<th>Local shortage of staple food.</th>
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<tbody>
<tr>
<td>Potential</td>
<td>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.</td>
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</table>
| Solutions | 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.  
C Enable smaller farmers to increase yields. Feasible, using better varieties and tested husbandry improvements. |
| Preferred solution | C |
| Objective | Raise yields by 30 percent on 20 percent of the farms in the area in the first year. |
| Intermediate objectives | 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. |
| Plan of work | - 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. |
| Support needed | - Subject-matter specialist 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 of year. |
The simplified example on page 113 shows how the agent can develop an extension programme into a schedule of field-level activities.

When the planning is completed for other programme objectives, the agent can compile all the plans into an overall annual work plan. He may find that he cannot possibly do everything that all the individual plans require, so some of the lower priority objectives may have to be dropped, or scaled down. The annual work plan does not specify what the agent will be doing on each day during the year, but it should indicate when each extension activity will begin and end, and what resources will be needed for each.

**Implementation**

To implement the programme, the agent carries out the activities specified in the work plan. His detailed monthly and weekly plans will take account of progress and problems encountered in previous months. For example, the timing of some activities may have to be changed, or additional method demonstrations may be planned if more farmers than expected want to take part. An extension programme should be flexible enough to allow the agent to respond to circumstances in this way.

**Evaluation**

The agent will be constantly reviewing and evaluating his progress during the year. At the end of the year, a more thorough evaluation should be carried out in which the agent identifies how fully each objective has been achieved, and the reasons for any lack of progress. This evaluation, together with an up-dated situation analysis, provides the basis for planning the next year's programme.

**Evaluating extension programmes**

Evaluation is the process by which the effectiveness of extension is assessed. It is more than simply finding out what happened; it involves passing judgement on what happened. Was the outcome of the programme good enough? Was it better or worse than expected? Could more have been achieved?

Extension programmes are evaluated to (a) ascertain for the extension organization how well agents perform, so that their suitability for promotion may be assessed; (l') satisfy the government that public money spent on extension is being used effectively; and (c) permit the agent to learn from what has happened. Evaluation is a waste of time unless the results have an influence on future extension decisions.

One approach to evaluation is to ask if the programme's objectives were achieved. This is an important first step and one which is made easier if the programme had clear, precise objectives. If the answer is no, then there is no real basis on which to make improvements in future programmes. It is important, therefore, to ask why things turned out in the way they did. Only
when that question is answered can the agent learn from the past. Agents should, therefore, ask questions about the following aspects of the programme.

**Results.** What happened as a result of the extension programme? Were they the results that were expected, and were there any unexpected results?

**Inputs.** Were all the planned inputs available and, if not, why?

**Levels of evaluation**

There are several levels of evaluation of extension programmes. At the most general level, the effect of extension on agricultural production, family incomes and standards of living can be evaluated. An increase in family living standards is usually an important ultimate goal of rural extension and it is, therefore, important to ask whether any increase has occurred. Evaluation of this kind involves measuring production and farm income for a representative sample of farm families, and then comparing the figures with previous levels. The changes revealed by these figures are then related to the extension inputs and activities during the programme.

However, extension is not the only factor that leads to higher production and living standards; changes in prices and in the availability of inputs are two of the many additional factors that affect the level of crop and of livestock production. Separating the effects of these various factors is a complex task and best left to specialist research and evaluation staff. Nevertheless, the agent should be aware of these economic changes and regularly ask himself how much his extension activities are contributing to the economic well-being of farmers and their families. He should also observe who is benefiting from extension. Is a broad cross-section of the farming population sharing the benefits, for example, or do one or two particular groups benefit most?

An intermediate level of evaluation is provided by the extension programme itself. Two questions are important here. Did the extension activities take place in the planned sequence and at the right time? Did these activities lead to the expected results? If the answers are negative, the agent should try to understand why. Perhaps he was over-ambitious about how many extension activities he could undertake, or maybe he did not receive the support he needed from other agencies. Whatever the reason, the agent will be able to learn from the evaluation process. He should be able to make more realistic plans in the future to ensure that the necessary support and inputs are provided.

Finally, the agent can evaluate at the level of each extension activity. All extension activities, such as demonstrations, talks or meetings with a farmers' group, have a purpose. The agent should try to check, wherever possible, not only how well the activity itself was conducted but whether the purpose was achieved. This will usually involve finding out whether the extension activity led to any changes in one or more of the following:

- awareness of a particular idea, possibility or problem;
- motivation to act in a particular way;
- knowledge about new farming practices;
- skills needed to adopt a new practice;
- behaviour by farmers and their families (such as new farming methods), or by an extension
group (such as making an application for funds to carry out a group project or the preparation of
a formal group constitution).

At all levels of evaluation, the agent needs to collect information to compare the situation after
the activity with the situation existing before. He will already have assessed the situation before
evaluation when deciding on the need for the extension activity. When planning a result
demonstration, for example, he will have some idea of how many farmers in the area know
about, are interested in, or have already adopted the particular practice that is to be demonstrated.
However, he can obtain a more accurate assessment by asking those who attend the
demonstration how much they already know and what experience they have had of the practice.
By carrying out a similar assessment after the demonstration, he can collect the information he
needs for evaluation.

Some effects can be assessed much sooner than others. Immediately after a public meeting, for
example, the agent can talk to a few members of the audience and check how clearly they
understood what he was saying. Changes in behaviour, on the other hand, will not happen at
once and the agent must wait before checking these.

There are several ways of collecting information for evaluation at the village level.

Agent's reports. Whether or not a formal report of each extension activity is required from agents
by their extension officers, the agent should make some notes on each activity for his own use,
concentrating on his conduct of the activity and on points to note for future occasions.

Supervisors. It is not easy for an agent to assess how well he conducts an extension activity; in
particular, he cannot see himself through the eyes of the farmers who attend. It is useful,
therefore, to have constructive comments from a supervisor or colleague.

Discussions. Informal discussion with farmers after the extension activity will reveal their
immediate reactions. It is often useful to record such discussions using a tape recorder for later
transcription and fuller analysis.

Questionnaires. Simple check-lists and questionnaires can be used when the agent has the time
and opportunity to carry out a more formal evaluation of extension activities. Before a result
demonstration on early planting, for example, the agent could prepare a list of four or five
important facts that farmers should know after they have attended. By asking a sample of farmers
questions on the facts, before and after the demonstration, the agent can assess its impact on
farmers' knowledge.

Observation. Where changes in farming practice are concerned, observation is an accurate source
of information. The agent can see whether or not his advice is being adopted on farms in the
area.

Many extension organizations have their own formal procedures for evaluation. In some, the
agent prepares a detailed plan of work each month on a standard form, showing what he plans to
do each day during the month and how these activities fit in with his annual extension programme. The plan of work is then used as the basis for evaluation at the end of the month. Did he do all that he planned? Did he encounter any problems that he should take into account in the future? Is he on target in terms of progress toward his annual extension programme objectives? This procedure may be combined with a monthly meeting of agents in a particular district at which progress and problems in each area are discussed.

Whatever the formal procedures in a particular organization, however, the agent should think of evaluation as an attitude of mind. He should develop a readiness to ask what happened, why it happened and how it could be done better in the future. In this way, he will continue to learn and improve his extension work.