WORKING PAPER No. 2

USING EVALUATIONS FOR PLANNING AND MANAGEMENT: AN INTRODUCTION

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International Service for National Agricultural Research

The International Service for National Agricultural Research (ISNAR) began operating at its headquarters in The Hague, Netherlands on September 1, 1980. It was established by the Consultative Group on International Agricultural Research (CGIAR), on the basis of recommendations from an international task force, for the purpose of assisting governments of developing countries to strengthen their agricultural research. It is a non-profit autonomous agency, international in character, and non-political in management, staffing and operations.

Of the thirteen centers in the CGIAR network, ISNAR is the only one which focuses primarily on national agricultural research issues. It provides advice to governments, upon request, on organization, planning, manpower development, staff requirements, financial and infrastructure requirements, and related matters, thus complementing the activities of other assistance agencies. Additionally, ISNAR has an active training and communications program which cooperates with national agricultural research programs in developing countries.

ISNAR also plays an active role in assisting these national programs to establish links with both the international agricultural research centers and donors.

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In the course of its activities - direct assistance to national agricultural research systems, training, and research - ISNAR generates a broad range of information and materials which eventually become the formal products of its publications program. The working papers series enhances this program in several important ways:

1. These papers are intended to be a rapid means of presenting the results of work and experiences that are still in progress, but are already producing results that could be of use to others;

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3. The series provides an outlet for diffusing materials and information that because of their limited coverage, do not meet the requirements of general audience publication.

The series is intended mainly for the diffusion of materials produced by ISNAR staff, but it is also available for the publication of documents produced by other institutions, should they wish to take advantage of the opportunity.

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1. INTRODUCTION

Research leaders and managers in the less developed countries often take a negative view of evaluations, which they may see as control of their activities or studies of little use to them. This misconception may be due to the fact that national research leaders are familiar mostly with two types of evaluations:

-- evaluations of foreign assistance by donors, which can easily be seen as an inspection of on-going or just completed projects, and possibly an audit of the use of funds;

-- economic analyses of return on investments, likely to be found interesting but not of direct use by national research leaders.

Few countries have much experience with the more innovative uses of evaluative activities by national research leaders for planning and management, and for informing policy-makers. The purpose of this paper is to demonstrate that evaluations form powerful tools for national planners, policy-makers and the research leaders themselves, outside of any donor-funded project or investment analysis. Evaluative activities enable a program manager to adjust the research program during its implementation, and perhaps to revise its objectives so that research results are a real contribution to development. They also enable a research institute or a planning entity to build lessons from past experience into revised priorities and the selection and design of future

programs. Evaluation plans should become an integral part of effective planning, whether it is planning for all research activities in a country, a specific scientific program, or research activities in a particular institute. It will increase the quality of the research program itself, as well as that of its future evaluations.

This brief introduction to the advantages of integrating monitoring and evaluation procedures into the planning and management of agricultural research is limited to the topic of evaluations of research activities, whether the focus is on one specific project, a program that includes several related projects, or all research activities in a country. It does not address other relevant evaluative activities, such as evaluations of personnel, evaluations of the management of research institutes, diagnostic surveys of existing farming systems, or studies of the rate of return to research.

The term evaluative activity is used in a very broad sense, referring to the intellectual concept that one can learn from a systematic assessment of a situation at a given point in time, whether that point is in the past, the present, or the future. If in the future, one will have to rely on projections rather than on actual measurements or observations, but the underlying reasoning remains the same. The term review will refer to the overall evaluation of the research system in a country for the purpose of selecting future priorities and plans. The term evaluation will be used in regard to on-going or completed individual projects or programs.

II. GENERAL PRINCIPLES

Some general principles are valid for all evaluations of research programs: the importance of including clear objectives and indicators of achievement in program design, of setting up systematic monitoring procedures, of evaluating a program in its context, and of differentiating between research results and the contribution of research to development.

1. Setting clear objectives and indicators

An evaluation begins at program design, by setting up clear objectives and selecting specific, verifiable indicators of achievements. An evaluation always entails a relative judgement: to evaluate a situation is to compare it with one accepted as ideal; therefore there must first be agreement on what will be acceptable as a standard for comparison, often called an indicator of achievement.

Diagram 1. Possible comparisons.

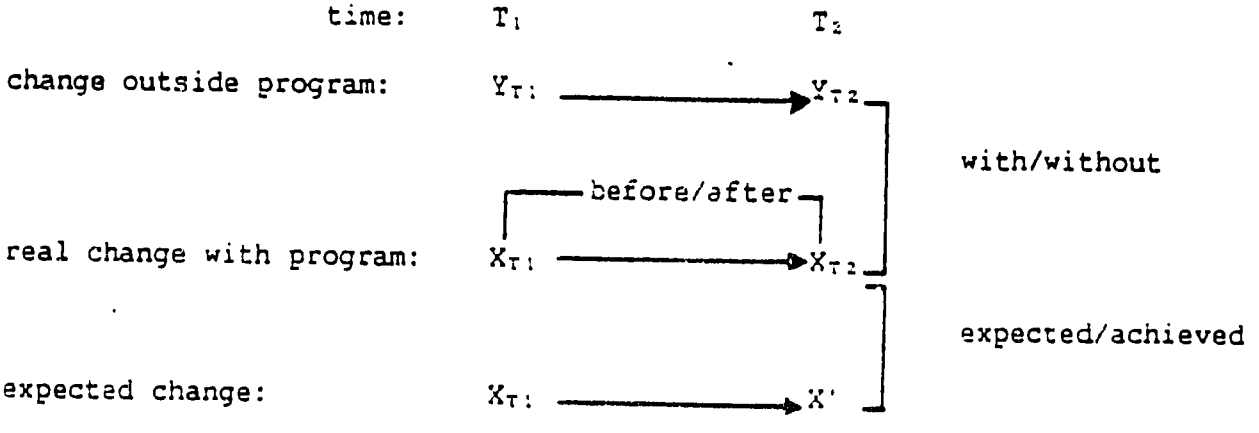


Diagram 1 shows that several pairs of comparison are possible:

- compare situation X at time T_2 with what it was at time T_1: before/after.
- compare situation X at time T_2 with situation Y, where no program existed: with/without.
- compare situation X at time T_2 with an expected X' which was defined when the program was designed: achieved/expected.

The third comparison (achieved/expected) is the only valid evaluation of a program. The first one (before/after) is a historical study. The second (with/without) may sound like an experimental control, and appeal to scientists. However, in the real world, there is no such thing as a controlled situation because one cannot keep other factors constant. This site comparison, like the historical study, has its use, but neither permits a judgement of a program's achievements. Therefore, the first rule in evaluations is that an evaluation begins when a program is being designed, by setting up clear objectives for the program, by selecting specific, verifiable indicators of achievements for that program, and by specifying how the achievements will be measured. This absolute requirement has two immediate benefits:

- It forces the program designers to clearly express what the objectives of the program are and what results are expected, in very concrete terms. This by itself greatly increases the likelihood of a program that is appropriate and realistic.

- It requires specifying how progress and achievements will be measured, and therefore establishes the basis for monitoring and reporting procedures.

2. Monitoring program implementation

There can be no valid evaluation without adequate mechanisms for monitoring, record-keeping, and reporting throughout the life of the program. In order to compare the results achieved against those which were expected, data and information must be available if the evaluation team is to understand what has actually been achieved to date and what occured during implementation. It is time-consuming and difficult to retrace this type of information afterwards, and sometimes simply impossible. It is much easier to keep track of program implementation as it occurs, through systematic record-keeping and reporting. This will have immediate benefits for implementation, since problems will be identified before they get out of hand.

3. Evaluating the program in its context

An evaluation must place the program in the institutional, political, social, and economic context in which it is implemented because no program functions in isolation. Judgement on the quality of program design and implementation cannot be passed by just looking at whether the expected results were attained. It should seek to understand why the achieved results are as they are, always differentiating between factors internal and external to the program.

There are numerous examples of programs which were technically sound and competently implemented but could not achieve the expected research results because of extraneous factors, such as a change in staffing or a cut in funding. Should an evaluation find that expected results were not achieved, it will be essential to trace whether this was due to constraints beyond the control of the researchers. This is not to provide a handy excuse for the program leader, but to identify the real cause of the problem and therefore its potential solution. The internal data gathered through monitoring is not sufficient for this; data will be necessary on factors and activities outside research itself, such as civil service regulations or changes in budget appropriation.

4. Tracing the contribution of research to development

The evaluation of a research program must very clearly differentiate between achievements of the program's research results and the contribution of these results to a broader development objective. Both types of evaluation are valid and in fact complementary, but they are not interchangeable. An evaluation limited specifically to satisfactory completion of an activity covers internal factors (program design, resources, implementation), those external factors which influence resources and implementation, and the scientific validity and potential of research results. The results it evaluates are those directly derived from the activity, such as a new variety or improved practices.

An evaluation of the contribution of that program to broader development objectives will cover the same factors plus two other sets: the fit of the program in the overall research and development plan of the country,

and actual adoption of research results and subsequent impact on production, income, or whatever the development objectives were. This introduces numerous non-research factors of regional, national, and even international dimensions. It is also likely that other research activities become relevant to understanding the contribution of one program to development.

Two conclusions arise from this: first, an evaluation of the contribution of research to development is more complex than a regular evaluation of implementation, it considers a broader scope of topics, and requires a different cluster of expertise to conduct. Its results also have more diverse use for general planning and reassessment of priorities, not only for research but also for development activities.

Second, an evaluation of the developmental impact of a cluster of research activities will be greatly facilitated if evaluations of each individual activity are first conducted, but only if these limited evaluations are conducted with compatible procedures. This does not mean that the same team must evaluate each individual activity, or that identical scope of work must be used; only that coordination at the preparatory stage is essential.

III. HOW EVALUATION FINDINGS CAN BE USED

1. Different levels of evaluative activities for different users

The findings of evaluative activities can be used for different purposes by different levels of management at different phases over time. This is

described below and summarized in diagram 2. Evaluative activities can be used:

-- by research leaders and policy makers, to establish a research plan. The findings of a comprehensive, interdisciplinary review of the total research system of a country will be used to select priorities and draw an overall research plan. A comprehensive review is more likely to be necessary at an early phase in the development of an overall research plan, when on-going activities do not yet form a coherent set of programs, or when the government is revising its development priorities. It could also become necessary if a drastic change should occur in research capacity, technology potential, world economy, or some other factors which modify agricultural potential and therefore research requirements. The findings from such reviews are used by government to decide on overall research priorities and resources, within the context of the broader development goals.

-- by research leaders, to design specific programs. The findings will be used to define, within the priorities established by policy-makers, which programs need to be designed, or whether to go ahead with a program submitted for approval. Evaluative activities at this stage include more detailed analyses of researchable problems and reviews of the available and necessary resources (in staff, budget, infrastructure), for the purpose of selecting appropriate research topics and approaches.

-- by program managers, during implementation. The findings will be used to verify that implementation is proceeding as planned. This

USERS			PHASES IN THE AGRICULTURAL RESEARCH SYSTEM				
Policy-makers	Research leaders	Research managers	No overall coherent plan	Plan being developed	Reorganization/ Strengthening Phase	Implementation of programs Start-up phase	Implementation of programs Completion phase
X	X		Review of entire research system				
	X			In depth review of specific components			
	X	X			Selection and design of programs		
		X			Monitoring of strengthening activities (training, reorganization)		
		X				Monitoring of research activities	
	X	X					Evaluation specific programs
X	X						Evaluation Impact of research - adoption rate - actual contribution

Diagram 2. Relation between phases in system development and users of evaluative activities

enables research managers to notice bottlenecks and problems before they cause too much damage, and to adjust implementation plans or schedules accordingly. Users of such information are limited to the people involved in or responsible for implementation, unless a grave problem is discovered.

-- by research managers, when a program is completed. The findings will be used to assess the research results achieved and to understand the factors which influenced obtaining them. They will contribute to a better design of follow-up programs, if required. Lessons from these evaluations should be made available to all research managers involved in programming.

-- by research leaders and policy-makers, to trace the contribution of a program to development, well after its completion. The findings will be used to estimate the actual contribution of the research results to development, to understand which factors (within and outside research) influenced adoption and ultimate impact, and to draw lessons for future planning of research and of other development services and related policies. Users of such information are the top leaders of research and other development agencies, and the policy-makers. There should be feedback mechanisms from these "impact evaluations" to the planning reviews discussed earlier.

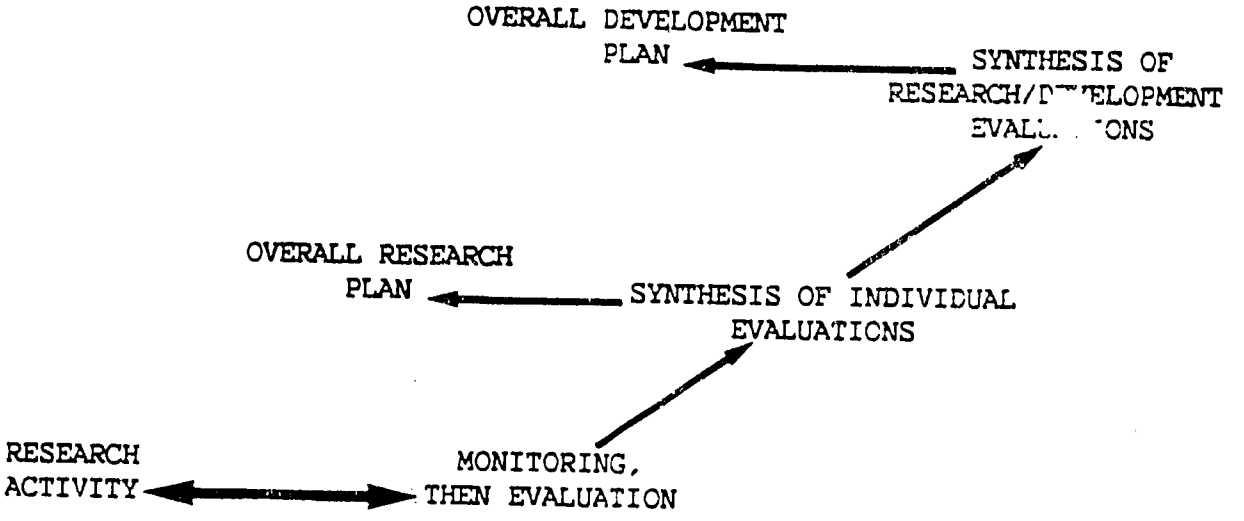
2. Information needs of policy-makers

It is essential for research leaders to understand the information needs of policy-makers and other government officials who decide on the

research budget. These individuals have no use for a pile of evaluation reports on individual programs, and they are not interested in scientific information. They require a synthesis providing a clear picture of research currently underway, relative use of resources, results achieved and expected, and current and forthcoming returns to research. Preparing this type of analytical synthesis obliges research leaders to trace the chain of events from research to development, and to differentiate the contribution (actual and potential) of research to development from that of other agencies and policies. This in itself provides research leaders with important information. It also reinforces their position when dealing with government authorities, who are then more likely to approve an overall research plan which uses the system to its full efficiency and contributes to national development priorities.

When all research programs are undertaken by one centralized organization, it is relatively easy to coordinate evaluations of individual programs and to prepare a synthesis of findings for feedback to policy makers. If several research institutes are involved, and perhaps a coordinating body, one can well imagine a two-tier system of evaluations. There could be agreement among the institutes and the coordinating body so that monitoring and evaluation procedures used for individual programs are compatible (but not necessarily identical). This would greatly facilitate a comparative analysis and synthesis of these evaluations, and would provide the coordinating body with an extremely solid basis for planning. This series of evaluative steps and their uses at different levels of authority is illustrated on diagram 3, where only feedback mechanisms are represented.

Diagram 3. Feedback mechanisms from evaluations to planning.



IV. INCORPORATING INDICATORS OF ACHIEVEMENT INTO PROGRAM DESIGN

The importance of planning for evaluations when designing a research program, and not as an afterthought was noted in section II. To do so obliges the scientists who design a program to provide clear definitions of its objectives and its expected results. Indicators which will make it possible to confirm whether the results have been achieved will have to be selected at this stage. These steps greatly contribute to the quality of the program itself. They can be summarized in a table similar to the logical framework that various development agencies use in their project papers (table 1). One should not assume from its origin that the logical framework (or logframe) is of interest only to donors or as part of an outside-funded project. The logframe is simply a systematic configuration of logical reasoning that everyone uses implicitly whenever a plan of action is made, be it a research program or a personal decision such as planning a trip.

The logframe is a four-by-four matrix which helps organize the various levels of objectives of an activity and sets up some related parameters to the achievement of each level. From bottom to top in the left column is a "narrative summary" of the four levels of objectives of a program.

Inputs: activities undertaken under the program, with the expectation that implementing those inputs will lead to the production of the outputs.

Outputs: those achievements (variety, technology, knowledge) which derive from the inputs and are not dependent upon other activities. For example, a breeding program (input) can be implemented to develop a new variety of wheat (output) with some specific characteristics.

Purpose: a desired agricultural development scenario for which the research output is necessary but not always sufficient. In the example of a breeding program, it is expected that if a variety with these characteristics is available (output achieved), then the farmers can get a third crop in after their summer rice, thus increasing food production (purpose achieved).

Goal: in the broad context of national development, a desired economic achievement for which the agricultural development purpose is necessary but not always sufficient. Here, the expectation is that if more food is produced in-country (purpose achieved), then less imports will be needed, with positive effects on food security and balance of payments (goal).

Table 1: Logical Framework: general example

	Narrative summary	Verifiable indicators	Means of verification	Important assumptions
Then	GOAL contribution to overall economic development goals	-processing and marketing -labor opportunity income	-national statistics	- political stability - no drastic environmental changes - no change in world prices
If Then	PURPOSE contribution to agricultural development purposes	increased production or better efficiency	- adoption rate - farm surveys	- necessary services available - economic environment favorable - no drastic environmental changes
If Then	OUTPUT new or improved product (variety or technology)	specifications of desired characteristics	- laboratory and station records - certification - on-farm testing results	- continuous support (budget, staff) - underlying scientific reasoning correct - no drastic environmental changes
If	INPUT Actions to be taken under the program	- work plan - schedule of activities	- quarterly reports - accounting and other administrative records	- budget disbursed as planned - staff available

The purpose and goals are generally the reverse statement of an identified problem. For example, here the problems are, from general to specific: we are spending more and more hard currency for food imports, the population is increasing faster than food production, so we must import more and more food, production is not increasing much because existing varieties will not allow a winter crop. A key step at this stage is to ascertain whether the problem addressed at the purpose level can really be solved by research. If production is not increasing much because the prices and marketing mechanisms are not favorable to producers, it is another problem altogether, and a research program alone will not solve it.

The second and third columns "Verifiable indicators" and "Means of verification" specify what type of evidence could be taken as signs of achievement of each level of objectives, and how that evidence could be found and measured. This will be discussed below in more detail. The last column "Important assumptions", too often taken for granted in development activities, lists those factors not controlled by the program but which influence its implementation and its chances for success. For example, changes in world prices of a commodity could influence the purpose to goal relationship.

Much thought must be given to the selection of indicators and the means of verification. Indicators are not always quantifiable, but they should be very explicit, as precise as possible, and objectively measurable. "Certification of a better wheat variety" is not a valid indicator: the concept of "better" is always relative. If the objective is to breed a variety of wheat which fits into a given cropping pattern, and yields

more than the traditional one, then an appropriate indicator may be certification of a variety with planting date in November, which matures in less than 150 days, and which consistently yields more than 2 tons/ha in real farm conditions. Means of verification in this case would be records from the certification boards, records from trials in experimental conditions, and results of on-farm testing and verification. Different evaluators should come to the same results when giving a value to an indicator. They may have different opinions as to why actual results match or do not match the pre-established indicators.

The evaluation of a research program would primarily use the input, output, and purpose narratives, and the two central columns (objectively verifiable indicators, and means of verification). If the program is correctly implemented, then the information necessary for calculating whether the selected indicators were fulfilled (the means of verification) will be gathered routinely throughout implementation, and analyzed at regular intervals to satisfy reporting requirements. This is not sufficient, however, because a good evaluation should interpret its findings and analyze what caused delays or discrepancies in reaching expected outputs and purposes. In other words, an evaluation does not just fill in the central cells but analyzes the cause and effect relationships between cells, because this is what will lead to an understanding of how to correct problems, and how to avoid them in the future.

V. DEFINING WHAT AN EVALUATION SHOULD COVER

1. Preparing a scope of work

This section discusses what topics are likely to be covered during the evaluation of a research program. The person who requests an evaluation will need to give the evaluation team specific instructions on what they are to include in their fieldwork and analysis. It is standard procedure to prepare a scope of work; that is, a list of the type of information that should be obtained and considered during the evaluation, and this before the team members are selected. A scope of work is not the list of actual questions that evaluators will ask during interviews, but a list of the subjects they need to raise during interviews or somehow obtain information about (from published data, or from observations for example). It should be very clear that there can never be a scope of work valid for any and all research programs, since the scope should be adapted to the particular objectives and context of what is being evaluated. Even so, some general points can be made.

First, the scope of work should specify who will be using the evaluation results. The scope, level of analysis, and style of presentation of an evaluation should be adapted to its intended audience. Its schedule should also be such that findings are available when they can contribute to decision making. It is necessary, therefore, that the person who coordinates the evaluation and the evaluation team be well aware of their audience(s). Several types of reports can be prepared from the same evaluation fieldwork; for example, a detailed description and analysis

for the program leader, and a summary of key findings and their significance for planning for policy-makers.

Second, what a scope of work should cover depends upon the stage of implementation of the program. An evaluation during the implementation of an activity should ascertain whether the reasoning and the data upon which the activity was designed are still considered valid. The scope should require evaluators to:

-- state whether the research should be refocused, its objectives, targets, workplan and schedule revised, or even whether it should be terminated;

-- discuss whether the objectives are being achieved according to the work plan, whether they are still relevant to short-term and/or long-term broader objectives, and identify constraints to successful implementation from any source.

An evaluation at the end of an activity should analyze the quality and potential of research results, compare them with what had been expected, and discuss the effectiveness of the activity in reaching those results. Whether it traces the dissemination of the results to the producers and its contribution to development depends upon the reasons for conducting the evaluation in the first place.

Third, the scope of work should not be limited to the activity being evaluated but should place it in context. The scope of work for an evaluation will cover several main topics, some dealing directly with

various aspects of the program, some dealing with the context in which it takes place, and some dealing with changes the program is expected to bring about.

2. Key topics for a program evaluation

In the course of its services to national agricultural research systems and organizations, ISNAR has identified nine topics which are likely to require consideration in the evaluation of a research program and should therefore be covered in its scope of work. The topics, whose order is not significant, are as follows:

A - The country setting

B - Structure, organization, and place of the research program

C - Planning and budget

D - Human resources

E - Facilities, equipment and supplies

F - Scientific activities and achievements

G - Program management

H - Communication linkages

I - Contribution of the research program to development.

The division among these areas is largely a matter of convenience when gathering information, and they do overlap. Management, in particular, is not really a separate area but is part of all the others. What matters is that the areas needing coverage go beyond the implementation of research itself, to cover elements from the national situation in

which research results will be applied. They specifically include the policy environment which influences both the implementation of the program and the adoption of research results.

Each topical area will be described, and its relative importance, which varies with the purpose and intended audience of the evaluation, will be discussed. The same areas would apply for the review of an entire research system, but with less detail on individual programs and more emphasis on the overall performance of the system and its place within the broader context of economic development and policies.

A. Country setting

Some may be surprised to see this first area included in a program evaluation, especially for evaluations conducted by a national team. Yet many aspects of a research program can be assessed only in relation to the situation of the overall research system in the country and to the conditions and potentials of its agricultural sector.

How broad a coverage of the country setting is needed in an evaluation report depends in part upon its purpose, particularly whether it will be used in communications with foreign colleagues or donors, or with national policy-makers. Any document prepared for general release needs more information on the country setting than an internal document does. This does not mean writing a purely descriptive first chapter on agro-ecological conditions in the country, but highlighting those elements in the physical, economic, and political environment which

influence research needs and potentials. This information is necessary to the evaluation team even for an entirely internal evaluation, because it is part of the analysis.

B. Structure, organization, and place of the research program

Two distinct issues are addressed in this area: (1) internal structure and organization -- how the program is organized, how it is internally set up to perform its functions; and (2) contextual structure and organization -- how the program fits into the national agricultural research system as a whole, and how it interacts with other components of the system.

This area can be very brief for an internal evaluation of a program implemented within one institute. It may require detailed attention from the evaluation team in the case of a joint activity involving staff from several institutes. Questions of lines of authority, division of labor, timing of various projects are then more complex and can become crucial factors in the success of the program.

C. Planning and budget

Again this section can be brief; basically limited to a review of the program objectives and program budget, if the purpose of the evaluation is simply to find out whether the program is being implemented as planned. However, if the purpose of the evaluation is broader and includes a reassessment of the program objectives, then the team will

need to understand how the objectives were identified in the first place, and how they fit within the overall research and development priorities of the country.

To assess whether the program budget is adequate, the team needs to compare this budget with two requirements: on one hand, with the work and staff required to implement the program with reasonable efficiency, and on the other hand with the overall resources available for research.

D. Human resources

Manpower is the very heart of any operation. Well trained, dedicated and productive staff can make all the difference between an effective program and an ineffective one. For this reason, information on the number of staff with various levels of education, experience, and training is collected. As with the budget, data on manpower allocated to a program should be analyzed in the context of the overall size and level of research personnel in the system.

In an evaluation of an on-going program, the team will also wish to consider eventual training requirements for the remaining life of the program. If insufficient training is found to have been a constraint in a completed program, this is a key lesson for future planning.

E. Facilities and equipment

Information on the number, size, and condition of facilities and equipment should be related to that on manpower and training, because

equipment is of little use in the hands of staff who are not adequately trained. This area also covers the location of experiment stations and on-farm activities, an essential point with important lessons for future programs and possibly for planning a reorganization of research infrastructure in a country. This area covers more than scientific and analytical apparatus, it includes the adequacy of library facilities and access to information worldwide.

F. Scientific activities and achievements

This area comes to mind first when a program evaluation is organized. It covers what research activities have been conducted, how, and with what results. It is in many ways as much an evaluation of the researchers as of the research and can be conducted only by individuals who are themselves competent researchers.

The evaluators will wish to review the work plans and experimental designs for each activity under the program. Tracing the life history of a few protocols selected at random can be very enlightening: it will highlight strengths and weaknesses at every level in the implementation of the program, from the criteria used by the researcher when designing the protocol, to how the work was actually conducted, results interpreted and reported.

The evaluation will also identify research results already achieved, comparing them with the indicators of achievements specified in the program and assessing the extent to which those achievements have been recognized outside the program.

G. Program management

In a broad sense, management encompasses virtually all areas of a program's operations. It is listed separately to remind the reader of its all-emcompassing importance. The particular emphasis in a program evaluation centers on where responsibility and influence are placed, and the extent to which those with responsibility have reasonable control or influence over the resources and conditions with which they are expected to operate.

H. Communication linkages

Agricultural development and increased productivity often depend on a country's ability to form and manage effective two-way relationships between technology developers and technology users. The success of a research program also depends on the effective operation of linkage with other research organizations within and outside the country, development agencies, and policy makers.

Communication linkages can be official, with formal mechanisms to ensure exchange of information, such as regular meetings, lines of reporting, or official visits. These are fairly easy to describe. However, the existence of formal communication mechanisms on paper does not mean that any communication actually takes place.

The importance of informal mechanisms - communications between individuals rather than between positions - varies from country to

country. They are sometimes the most effective form of communication. This is why this area should cover the nature of the means of communication, it should describe how actively those means are used, and how effective they are.

I. Contribution of the research program to development

This area does not duplicate area F. It builds upon it to find out how the scientific outputs of the program are contributing to development. By definition, an evaluation can assess contribution only if scientific results have already been achieved and if sufficient time has elapsed for a contribution to be possible.

An evaluation at this level, often called an impact evaluation, cannot be limited to tracing the adoption of research results and subsequent impact upon production. When assessing any change in production, it is never correct to place the praise or blame only on research activities. A change in the agricultural sector or in the national economy is always the result of interactions between many agro-ecological, technical, social, economic, institutional and policy variables, of which research is only one. This means that the scope of work of a program evaluation at this level must include many questions beyond research activities. It will have to deal with extension and other services, rural infrastructure, prices, marketing, processing, actual adoption rates, and impact on production and possibly on income, labor, and nutrition. The evaluation becomes more complex and time consuming, but its usefulness goes well beyond a simple assessment of whether a program was implemented as planned.

VI. CONCLUSION

This paper emphasizes that evaluative activities are an integral part of good management and that research leaders will find reviews and evaluations of their programs a useful and constructive tool for management and planning. The systematic inclusion of reviews and evaluations into planning, programming, and implementation processes is likely to result in a more coherent selection of research priorities and approaches, and in more realistic program design. It provides research leaders and managers with the information they need to exert their responsibilities. It also places them in a stronger position when informing policy-makers, so that the potential contribution of research to development is likely to be better understood and supported at the highest levels of government.

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