

an interest in their problems, to overcome these problems, to teach them how to do so and to persuade them to act on his teaching" (20).

"An (extension) agent is an activist whose main role is to help people form their own organizations in order to be able to tackle their problems" (3).

While the conventional and somewhat dated literature still sees the extension agent essentially as a teacher who has to convince rural people to do what he or she believes is good for them (i.e., important for government policy), a radical re-appraisal uses terms such as "facilitator", "enabler", "activist", "arbitrator", and "broker" to describe the role of the extension agent. More provocatively, Constantino-David sees the extension agent as a "facipulator", or a mix between a "facilitator" and a "manipulator" (5). Whatever labels we settle for, the issues of *skills* and *areas of knowledge* appropriate to extension work come under review when we examine alternative roles for an extension agent. The re-examination of the extension agent's role has not yet been concluded, but inevitably it will question severely the agent as a mere passive communicator of ideas or knowledge generated outside the rural community (21).

### CONCLUDING COMMENT

"For agricultural extension to help the rural poor is like asking water to flow uphill"—B. Stavits

Is the above an avoidable state of affairs? Clearly agricultural extension (in the Third World) is trapped into a cycle of technology generation and dissemination in situations where the cycle is, in the first instance, irrelevant. New technology and ideas to develop the agriculture-based livelihoods of rural people in the Third World are important, but they have their place in the overall process of change and they can only be appropriate in given circumstances. Technological change is *not*, in the first instance, a panacea for the problems that confront the vast majority of the rural poor and, as such, an extension service that is predicated on the theories of technological adoption and diffusion, is irrelevant to this majority.

"There is no purpose in teaching a person to ride a bicycle. . . if that person does not have a bicycle"—Ancient Chinese Proverb.

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## Training and Visit Extension: Back to Basics

Michael Baxter and Donald C. Pickering

World Bank, 1818 H Street NW, Washington, DC 20433

The Training and Visit (T&V) system of agricultural extension has been widely adopted over the past decade. It is now being used in at least 40 countries. Many governments have contributed significant resources to implementing the system. Multi- and bilateral development organizations have also been involved. The World Bank, the leading development agency in this respect, has invested about \$2.4 billion in extension activities.

While T&V has been widely adopted, its progress has not always been without problems. Key aspects of the system as it was initially described (1) and later updated (2, 3) are frequently misunderstood or ignored. Moreover, while the principles and basic organization of the system are simple and appear straightforward, they mask an inherently complex system. It is this apparent simplicity that encourages adaptation and change, which is welcome so long as the basic principles of the system, and hence the intended functions of each of its parts, are understood in the first place.

### Principles of the training and visit system

The T&V system aims at building a professional extension service to assist farmers in increasing production and/or incomes and to provide appropriate support to agricultural development. This first function of an extension service means that it should provide farmers with relevant and timely information suited to their particular resource conditions. The second basic function of an extension service is to ensure that agricultural services, i.e., research, input suppliers, credit and marketing organizations, and agricultural administration in general, are aware of farmers' conditions, constraints, and needs, and orient their programs to serve farmers effectively; hence the importance of a strong, active feedback system.

There can be no one system of extension suited to all farming communities. The variation in agroecological conditions, socio-economic environments, and administrative structures is such that one

system cannot be expected to suit all conditions. To be successful, the T&V system must be adapted to fit local conditions. However, the flexibility that enables successful adaptations to be made in the system does not allow adaptation of its basic principles—there is flexibility within the relatively rigid framework of the system's principles.

What are the fundamental principles of the T&V system? The most important include professionalism, a single line of command, concentration of effort, time-bound work, a field- and farmer-orientation, regular and continuous training, and close links between extension and research. Each of these is briefly discussed below.

By *professionalism* is meant an extension service that is professional in all senses. Extension must keep in close contact with relevant scientific developments in order to be able to formulate technical advice that will be useful to farmers under various resource conditions and will ensure that research focuses on farmers' relevant problems. Extension workers must be able to identify production constraints in the field and to advise farmers on how to overcome them, or to relay them accurately to research. A basic requirement to achieve this level of professionalism is for extension workers at all levels to be trained continuously to handle their particular responsibilities. Only through such training will credibility for extension be built within the farming community. Extension workers must also receive the basic physical and administrative resources and other support that is required to perform their professional functions.

Agricultural extension services to farmers must be unified and under a *single line of command* within an appropriate ministry or department. Support is required from research and educational facilities, as well as from other agricultural services and government authorities, but all extension staff should be administratively and technically responsible to only one body. Moreover, the department within which the extension service is located should be responsible only for extension, notwithstanding the necessary links with other activities and organizations.

A fundamental principle of T&V extension is that there should be a *concentration of effort*. Only by a concentration of effort on individual component activities is the success of the whole ensured; only by concentrating on the task at hand can the impact of extension be visible and progress sustained. Concentration of effort is a feature of all aspects of the system. Extension staff work only on extension: They are not responsible for the supply of inputs, data collection, subsidy distribution, and loan processing, or any other activity not directly related to extension. However, they should advise farmers on where and how to obtain inputs, subsidies, loans, markets, and so on, and keep extension management and others well-informed of farmers' conditions. Involvement in nonextension activities dilutes the technical focus of extension and the direction and impact of extension operations. It is not that such activities are less important than others to agricultural development; on the contrary, they are basic to sound development. Just as extension is best done by a professional extension service, so are these functions best performed by specialized staff trained and able to work full-time in their specific fields.

Within an extension service predicated on T&V principles, each member has a defined task: All of his or her efforts should go to performing that task. Similarly, attention in training sessions is concentrated on important points; and extension-oriented research concentrates on key production constraints that are experienced by farmers. Such an agricultural extension service initially focuses on a small number of important crops. As the service's expertise develops and appropriate technical and other support becomes available, it may gradually incorporate other important crops and indeed other production activities of farmers. In sum, concentration of effort means that the entire extension system is focused on bringing about the greatest and earliest possible increase in the production and income of the farmers it serves.

*Time-bound work* is another basic principle of T&V extension. Farmers must receive technical advice and assistance from extension agents in a regular and timely fashion so they can make the best use of resources at their command. The extension agent must visit his farmers regularly on a fixed day that is known by all farmers.

Technical recommendations for a specific area and for particular farming conditions must be reviewed monthly in light of recent research by extension's technical specialists (Subject Matter Specialists) and subsequently taught by SMSs to extension agents. The regularity and frequency of both field visits and research/extension workshops and extension training sessions also ensure the opportunity of frequent feedback from the field to extension management, research, and other agricultural services. Any break in this time-bound system of training, visits, and feedback makes effective extension difficult.

Extension cannot be effective without a *field- and farmer-orientation*. To serve farmers, extension must be in contact with them. Moreover, extension's contact with farmers must be on a regular basis, on a schedule known to farmers, and directly with farmers who represent all major farming conditions and socio-economic types of the broader farming community. In addition to frequent, regular contacts between extension agent and farmer, all other extension staff (from first-line supervisors to the service director), as well as researchers and all others involved in agricultural services, must have frequent exposure to farmers in their fields and villages. The ultimate test of extension's success is the impact it has on farmers. Intelligent exposure to the field and farmers can quickly indicate the strength of all components of the extension system.

To ensure that extension staff concentrate on effective farmer contact, and in view of the generally unproductive outcome of reports, the administrative and report-writing responsibilities of all extension staff must be kept to an absolute minimum, some would say nonexistent.

*Regular and continuous training* of extension staff is required to teach them the specific production recommendations to be discussed with and taught to farmers in the coming weeks and also to upgrade the professional skills of extension staff. The cumulative total of regular, frequent, and practical training can have a significant impact on the knowledge and ability of staff. Moreover, the regular training sessions are a scheduled venue for feedback between farmers and agricultural services, and for extension staff to exchange information and experience.

A final fundamental principle of the T&V system of extension is that there must be close, two-way *linkages between agricultural extension and research*. Problems faced by farmers that cannot be resolved by extension field staff and their SMSs must be quickly forwarded to research. Improvements in technology developed by research equally must be fed quickly into the extension system to be discussed with farmers with the appropriate resources. Without the technical content of recommended practices that comes from research, extension has little to do in the long-run. Similarly, without the orientation to farmers conditions and priorities and farmers' reactions to recommended technologies that extension is able to collate on a regular and representative basis, research cannot remain effective for long.

Just as extension is unable to function in the long-run without close research support, so research depends on extension for its ability to serve farmers effectively. This contributory role of extension to research explains why, even in the absence of an effective agricultural research system, it is important to develop a farmer-oriented extension system. Extension can provide the pressure to get an agricultural research system to focus on relevant farmer problems and to develop appropriate technology. Without such pressure, even a potentially responsive approach, such as farming systems research, is likely to have a weak farmer orientation. In sum, in the absence of an effective research system, it is not that extension is required; in such circumstances, it is required even more to generate knowledge of production constraints and foster greater effectiveness in the resolution of such constraints by research.

#### **Areas of possible confusion of misunderstanding**

These principles are straight-forward, but experience in the field suggests they are not readily understood. Four examples of such misunderstandings will be presented, starting with the need for fixed work schedules, particularly of extension agents and their immediate supervisors.

Without work programs that are location- and time-specific, few people can work effectively. The physical conditions in which extension operates, scattered staff who are only in infrequent direct contact with a supervisor and responsible for large numbers of farmers over a broad area, make a fixed, known program even more important. Without such a program, it is difficult to ensure that a worker fulfills his or her functions systematically (i.e., covers all required villages or, in the case of supervisors, village-level workers in a systematic manner). Equally important, farmers should know who is deputized to work with them and when this work is meant to take place. Farmers' access to such knowledge facilitates the supervision of extension staff as farmers themselves take on a supervisory role.

A second area where confusion is common is the contact farmer. Contact farmers are not another level of extension worker, classified by some as "para-professionals". They were devised for two main reasons. First, since an extension worker cannot visit all farmers in his or her jurisdiction (and does not need to, anyway), contact farmers are a means of making manageable the basic task of meeting farmers. Second, because the contact farmers of any particular extension group represent all major production and resource conditions of the farmers of that group, they are a means of seeing that extension confronts all such conditions. There are potential difficulties in the selection of contact farmers in that they may not be truly representative of the farming community from which they are selected and they may not be full-time or serious farmers. But, in practice, these problems can be overcome with careful selection of contact farmers and by monitoring their interest in and reaction to extension activities.

The advocacy of contact farmers does not mean there is no place for extension to work in farmers' groups. Indeed, extension staff working with contact farmers should use group meetings to complement individual contacts, and other farmers should be encouraged to participate in the extension agent's discussions with contact farmers. In some situations, the farming community may be more inclined to work through groups than individual contact farmers. This being the case, care should be taken that the range of production and resource conditions of the community be adequately represented in the group and in extension activities. Moreover, extension field operations centered on groups do not preclude the need for work in individual farmers' fields and direct contact between extension staff and individual farmers. The basic point in the discussion of "group" vs. "individual" approaches is that any method that enables effective farmer-extension contact should be pursued; this is unlikely to be either a purely "individual" or "group" approach.

The role of supervision and leadership in effective agricultural extension is another area of confusion. Many times I have been told that the T&V system is well conceived and organized but the only problem is that it requires leadership. The obvious response is that no extension system is self-managing.

Despite detailed descriptions of the T&V system's organization and the supporting job descriptions, one of the weakest areas of any

such system's implementation is likely to be supervision. *Supervisors often do not supervise.* They may be involved in a range of other functions that "prevent" them from fulfilling their intended roles, they may lack the transport required for their supervisory function, or they may not do the work for other reasons. No matter the reason, unless staff are able and required to supervise, the T&V system (like any other extension system) will operate below its potential.

A fourth area of confusion that should be mentioned is the role of Subject Matter Specialists (SMSs). One is tempted to say that SMSs are the most important components of the T&V system, although this is at odds with the fact that each component (extension agents, their supervisors, regular training and farm visits, research/extension interaction, etc.) is equally important to the functioning of the system. It is enough to say that SMSs have a crucial role in the system, and that an extension service without them is unlikely to operate effectively.

The SMS is the prime trainer of extension agents and their immediate supervisors. They are responsible for checking in the field the way in which recommended practices are being presented to farmers, farmers' reactions to recommendations, and the extent to which the recommendations cover the major crops and practices of the farmers. SMS's are also the extension staff who are in most direct contact with research, who are primarily responsible for ensuring that research is aware of farmers' conditions and technological needs, and who work with research to identify production recommendations relevant to each set of important farming conditions. To fulfill these functions adequately, SMSs are expected to spend about one-third of their time making field visits, one-third training other extension staff (primarily in fortnightly training sessions), and one-third in contact with research (in extension/research workshops, contact with individual researchers in research libraries, and working on some experiments in conjunction with research workers). Clearly a "T&V extension system" without SMSs is not "T&V".

## SUMMARY AND CONCLUSIONS

The T&V extension system has proven successful in many different environments around the world. It appears that enough flexibility exists in the system to allow for adaptation to unique characteristics of a particular environment. However, the principles and basic organization of the system must be understood and implicit in the adaptation of the T&V system. Emphasis in the next decade of the use of T&V should be placed on the basic principles.

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