

Communication: Essential Element at International Centers

Francis C. Byrnes

The first international agricultural research center began operations less than 20 years ago. Not even the most optimistic and enthusiastic supporter of the International Rice Research Institute (IRRI), the first center, would have dared to dream, let alone predict, either its dramatic success or the consequences for peoples and other commodities around the world.

By 1980 there were 10 centers and programs, located in as many countries, engaged in problem-oriented research and training.

Many factors have contributed to the centers' success: experience, expertise, resources, commitment, and direction. Each center has a rare combination of scientific and managerial talent organized and supported to mount multidisciplinary attacks on production-limiting problems. The effective exchange of information—that is, communication—within each center, between each center and its diverse clientele, and among the centers and other organizations in the technical cooperation community, has been an essential element of this success.

The communication programs of the centers have devel-

Byrnes is program officer, International Agricultural Development Service, and formerly head of the office of communication, International Rice Research Institute, Philippines, and head of training and communication, Centro Internacional de Agricultura Tropical, Colombia.

oped rapidly to keep pace with the growth of their activities. In the last 15 years changes have occurred in communication philosophies, programs, and activities. But, one hesitates to refer to these changes as "evolution." Given the recent origin of even the oldest centers, the rapid growth in their number, and the expansion of each center's program, the developments do not fit, as yet, identifiable or **predictable patterns**, either among centers or even within one center.

Nature of the Centers' Total Effort

Centers operate under extreme and frequently contradictory pressures. They are mandated and financed as research institutes responsible for developing germplasm and production technology capable of increasing the production and productivity of specific commodities. They may find themselves being evaluated by donors, government authorities, and the public, not on the nature of the new technology generated, but upon its widespread use by millions of farmers. Yet, whether farmers use the technology partially depends upon factors beyond the responsibility, control, or reach of the centers. Of paramount importance are the capability and direct involvement of national research and extension programs. As a consequence, most centers try to orient programs and activities that maximize service to national systems.

For example, early in IRRI's history, regardless of their research, their success would be measured by the extent to which rice yields increased in the paddies of Asia, not by the importance or scope of the research results **per se**. This prompted greater consideration of the factors influencing rice production and productivity at national levels and led to the high priority accorded training.

Almost as soon as successes in influencing yields were achieved, centers were criticized for not anticipating the socio-economic-political consequences resulting from significant changes in agricultural productivity and farming practices.

Centers are responding by expanding outreach projects. Training programs include production as well as research specialists. Developing countries are being stimulated, encouraged, and assisted in organizing their own research, training, and production efforts.

The communication efforts of multiple-commodity centers necessarily are more complex than those with only one or

two commodities. As the number of commodities in a given center increases, within-center competition for resources and attention mounts, and pressures arise to produce independent annual reports and other publications. The readiness of the countries served to absorb the center's research results may differ greatly by commodity. In the early days of the Centro Internacional de Agricultura Tropical (CIAT), for instance, almost every country in Latin America was interested in and doing some work with field beans; this was not the case with cassava.

Orientation of Communication or Information Leadership

The way the communication responsibilities of the centers are developed and executed depends on the background and philosophy of those who lead the communication programs. Frequently, however, the qualifications desired in those selected to head the information activities of the centers appear to contradict the actual performance expected of them.

Initial heads of information services at the first two centers, IRRI and the International Maize and Wheat Improvement Center (CIMMYT), had farm backgrounds, university degrees in agricultural journalism, and doctoral degrees in communication as a social or behavioral science.

But, most centers seem to have had difficulties in attracting or retaining the kind of persons they wanted to handle publications, usually the work of principal concern. The publications concerns of the centers may best be met by looking for good editors who want to continue to be good editors, not Ph.D.s in communication or other behavioral sciences.

Another factor affecting information service staffs among the centers is the availability of competent media (writing, editing, photography, graphic) support personnel in the host country.

But, resolving the editorial problems of an international center does not resolve the communication problems. There are other communication-related issues requiring professional as well as administrative attention.

Role of Social Scientists in Center Programs

The presence of social scientists on a center's staff influences the center's views of its communication responsibilities and its methods of executing them. Most centers began giving attention to social and economic variables, beyond

production economics, as a result of criticisms of the "Green Revolution" and "second-generation" problems resulting from the new technology. Economists began looking for factors in addition to cost-benefit ratios to explain acceptance or rejection of new varieties and practices.

Later, at some centers, visiting sociologists, anthropologists, and geographers made observations, interviewed farmers, and produced data and recommendations to help centers and national programs design and package technology more likely to be adopted by farmers. In some centers, farming systems helped to bring divergent disciplines together. These studies and analyses require professionals, in addition to agricultural scientists, to study human behavior and social systems.

Behind the social concerns is recognition of the need to establish effective ways to link the farmer to the scientist and his research. Farmers have problems and needs, some recognized, others not defined; but they lack effective means of communicating with scientists and research organizations. Hence, if what they do is to be relevant to farmers, scientists and the organizations which employ them must take deliberate and frequently extraordinary steps so that they may observe what farmers do, listen to what they say, and benefit from their first-hand evaluations of new or proposed technology. This is a major communication responsibility which centers and national programs seek more satisfactory means of executing. Yet, few communication scientists or information specialists have been directly involved in such activities.

Communication with developing-country national programs at the highest levels is important, but few centers have employed macro or policy economists or scientists on a continuing basis. This has handicapped efforts to provide convincing data to support effective communication with decision makers on the need for policies, regulations, and services capable of stimulating and supporting accelerated agricultural development.

Other Factors Influencing Communication Responsibilities

Other factors which, over time, will influence the exercise of communication responsibilities of the international centers include (a) changes in leadership and direction, (b) new communication technology, (c) use of consultants and temporary staff, (d) growth in communication and informa-

tion staffs in developing countries, (e) exchange and sharing of materials and staff among the centers, and (f) establishment of organizations with specific responsibilities for working with national systems.

Looking to the Future

Because most human interaction involves communication, the behavioral science-oriented specialist views the generation of technology as a necessary means to achieving an end which depends upon changing what people know, do and feel. But, the notion of changing behavior tends to make agricultural scientists uncomfortable. They sometimes question the ethics of such deliberate changes even while retaining their skepticism that they can be affected.

Some argue that if the technology is "good enough", farmers will use it. What frequently is missing is information about which attributes of a particular technology the farmers perceive as "good." To accept a communication orientation is to reject the firmly entrenched version of the Golden Rule, "Do unto others as you would have yourself done unto," and to adopt instead: "**Do unto others as they would have themselves done unto.**" The farmer's message frequently is the critical missing link in production research.

Most communication specialists are prepared to assist in defining objectives and selecting ways to present messages to achieve stated objectives in such diverse activities as training programs, conferences, workshops, publications, films, production campaigns, and organizational management, if and where center administration desires such participation. With the scientist or administrator, the communication specialist determines the content and treatment of information (messages) in terms of the agreed-upon objectives and strategies for a specific audience. His concern is that the message gets **attention**, is **understood** and **accepted**, and results in the **intended action**. If and when the action takes place, and if nothing (or the unexpected) happens, he seeks information as a basis for determining or advising on subsequent communications.

When organizational or other constraints prevent the communication specialists from participating meaningfully in the total process, the organization gets less than the best from them. If they have little voice in the nature of the information piece being produced, other than that it meet the specifications of the scientist or administrator, they lose interest and motivation.

Communication specialists finding themselves in such situations can pursue friendly initiatives. It helps to learn as quickly as possible the vocabulary and identify the principal concerns of the professional staff with which they work. They can seek opportunities to meet and work with the agricultural scientists on the scientists' own ground, whether it be the library, laboratory, experimental plot, or farmer's field. They can find out what the scientists are trying to accomplish with their messages and gently suggest new approaches. A request for help on a manuscript represents a built-in opportunity to learn from scientists as well as to discuss with them objectives, strategies, and alternate or additional ways to accomplish what they want to do.

Communication specialists can practice what they preach in the conduct of their own affairs, in presentations to the staff, or in seminar participation. Stimulation of attention provokes interest, and some scientists will seek their counsel. Offers to help scientists or administrators with their own presentations are likely to be accepted with appreciation. Such activities, first at IRRI and later at CIAT, returned dividends to the author in professional satisfaction, colleague acceptance, and results. Overall, communication specialists must earn their professional role and status—it is not automatically acquired with the position. They must demonstrate convincingly what they can do, given the opportunity.

What important communication issues currently face the centers?

Internal Communication. As international centers grow in size and complexity, effective internal communication becomes critical. Despite the emphasis on multi-disciplinary teams, it is easy for some scientists to isolate themselves from the overall mission of the center.

Incoming Information. Success of a communication approach depends upon an orientation to the potential receivers of the center's communication. The quality and quantity of information coming into the center should receive attention. Organizations typically have poor memory and recall systems, with the most critical and current information stashed in the desks, files, or briefcases of the staff. It is important to give attention to how incoming information is screened, processed, circulated, stored, integrated, and recalled.

Outgoing Information. Limited resources create a need to establish limits on information products designed for specific purposes.

Center information falls into two categories:

Direct: Publications; exhibits and displays; field days, demonstrations; assistance to conferences and symposia; films and slide sets; speeches and presentations by the staff.

Indirect: Press releases; arranging radio and television coverage; cooperating with outside groups on production of films and other media materials; journal articles; translations; providing reproducible copy (or negatives) to national systems; photographs and artwork; syllabi; advisory services on information; training; evaluation; literature search; documentation services.

In the direct category the center tells its story through its own channels. Indirect emphasizes information activities of others. The decision to emphasize one approach over another has implications for the kind and number of communication and information personnel required.

Organizations benefit from periodic review of their communication orientation and information products in relation to their mission. Communication specialists typically are concerned with communication strategies and, within these, the manipulation of message content, treatment (or style), and channels (media, forms) to produce specific changes or responses in the knowledge, understanding, attitudes, and performance skills of the target audiences.

Critical to the success of a center's communication strategy is definition of target audiences. Potential audiences include the following:

- The center's Board of Trustees.
- Scientists engaged in studies of the same or related commodities and problems.
- Educators, extension workers, and production specialists who translate research results into instructional materials and cultural practice recommendations, prepare teaching materials, and bring information to students farmers, and other relevant groups. (Perhaps deserving the highest priority in this group are the professionals who have received training at the centers. It is important to establish

ways to make sure they receive, regularly and on a timely basis, data and information to enable them to make full use of their training in support of national research and production programs.)

- Representatives of supporting and facilitating agencies (public and private)—the institutions responsible for the supply of credit, irrigation, fertilizer, chemicals and other inputs, and for the purchase, processing, and storage of the harvest. **The communication media are important members of this group.**
- Policy makers and senior administrative officials in the governments of the developing countries in which the germplasm and cultural practices will be used or adapted.
- Donor organizations and the institutions in the technical cooperation community worldwide.

Centers can specify behavioral objectives for each audience group and sub-group and can manage their information and communication activities to complement institution-wide efforts to achieve them.

Training and Research. Since trainees represent an extremely effective communication channel, it is important that they learn how to communicate more effectively. People teach the way they have been taught. A behavioral science approach to training is likely to be reflected in the performance of those trained.

Information staffs can assist national programs directly with short courses and internships for information workers of cooperating countries, and, on occasion, consult with them on information problems in their own counties. Such activities, in turn, may improve communication within the organizations from which the trainees come.

Most centers have difficulty in providing the behavioral science fundamentals necessary to prepare communication specialists. When the courses are available at a nearby university, students can conduct thesis research on projects of interest to centers. These include diffusion of technology, efficiency of training, utilization of trainees, and evaluation of information programs.

If the information services do not have staff to conduct re-

search on the communication program, it is important to have funds to contract for such studies or to provide temporary staff as visiting scientists.

Continuing Issues. Centers may differ in how they resolve issues, but none can be ignored. These issues, including some already identified, are:

- Defining and implementing appropriate activities, and maintaining a productive orientation to and relationship with national programs.
- Integrating and cooperating with information operations of institutions in the host country. In many situations, it is difficult to establish and maintain a low profile, but it is important to do so and may require close working relations with the local mass media.
- Defining the relevant audiences for center communications and establishing priorities and budget allocations for them. Often changes occur as a consequence of internal politics, the ebb and flow of funding, and changes in institutional leadership. It is important to be able to identify such trends as quickly as possible.
- Extent to which information services support or are integrated with training operations.
- Extent to which communication or information staff participates in basic decisions relating to relations with present and potential donors, visitor services and public relations activities, press and media relations.
- Extent to which centers attempt to provide periodic summaries and integration of progress with a specific commodity based on three years or more of work, thus permitting greater detail, broader coverage, and more meaningful information than a year-by-year report permits.
- Extent to which it is necessary or desirable for the center to be self-sufficient in terms of ability and capacity to process its information products.
- Extent to which the center operates and publishes in more than one language, and if more than one, which ones.

