

The Need National Ag Research Has for Communications Support

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When you set out to describe a “national agricultural research system,” your situation has a lot in common with that described in rhyme by a minor poet of the nineteenth century:

There were six men of Induстан
To learning much inclined
Who went to see an elephant
Though all of them were blind. . .

Still, we have to set up a view of a national agricultural research system before we can say much of anything intelligible about the needs such a system has for communications support.

We'll take a simple and functional view of the system. We'll say it is an organization nearly always created and sustained by a central government—subject to that government for the definition of its tasks and for its operational resources.

The system assembles resources of knowledge, trained personnel, land, equipment, and experimental material; it applies those resources toward finding ways of increasing the production or productivity of its agriculture, and it makes its findings available to those who can use them.

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This paper sets out a view of communications that we have found useful in analyzing the activities and performance of several national agricultural research systems. (We state a caveat: Our conception of the research system is based largely on our experiences in small nations, where agricultural research is in the early stages of development.) We will represent our prototype national agricultural research organization as an input-throughput-output system, highlighting those areas where the theory and practice of agricultural communications seem to have unique contributions to make.

Output

What we call output is the means by which policy-makers and donors are kept informed and the means by which results are transferred to users. There are numerous potential audiences for the output of the research system, and non-professional communicators seldom have both the desire and the knowledge needed to fit available material and its treatment to the various audiences. Persons doing research are usually most interested in reporting results to other researchers; they prepare a technical report and feel that they have met their responsibility. Yet the technical report, whether for a journal or for the extension service, is seldom what is needed to communicate useful findings to all audiences.

The quality of reporting and quality of presentation may leave a lot to be desired. Perhaps even more in the developing area of the world than here at home, most scientists need help to achieve a clear, understandable presentation of material prepared for other scientists. The need may be more acute for reports to other audiences.

Not all researchers have the time or skill to transform their subject into something a farmer or an extension staff member can understand and apply. Sometimes researchers and extension workers get together on their own initiative, but sometimes they don't talk to each other at all.

A crucial audience often overlooked by many in the research system is the government policy-makers from whom the system gets its resources and mandate. The future support of the system may hinge on what the legislators think they are getting for their money. They are interested in how the results of their allocations have or will benefit their consti-

tents. This special audience has not had sufficient attention within many research systems, either from its leaders or from the researchers themselves.

As we have become acquainted with small national agricultural research systems, we have found four main types of communications output:

Research reports—typically technical annual reports used with various audiences; often they provide something to give in exchange for reports from other sources of research.

National research journals—a technical periodical in which research is reported and technological topics are treated.

Reports for the diffusers of information—extension service, educators, input suppliers, development banks, etc.

Popular reports—some produced within the research system, but more typically by writers or broadcasters from the agricultural ministry or government information ministry.

Among these four categories of output, *research reports* seem to hold the most allure for people in the research system. Many reasons come to mind. In small systems, expatriates account for a big share of the work, and they see published research as a passport to a professional career back home. We have noted, too, that developed-country researchers who went abroad for training also learned about publish-or-perish!

In small systems, it is common to find that a researcher may be assigned responsibility to bring together and edit the reports of his colleagues for the annual report. He or she may get no professional support—even if there is help available. Production problems, both human and technological, abound. Time lags make for lively horror stories.

National research journals may be created from at least two impulses: a desire to have a vehicle that can be distributed to extension staff and other users; and a desire to have a place to publish articles that probably won't crack the developed-world journals. These national journals are plagued with the same production problems that constrain research reports: relatively few articles based on solid research results; lack of executive editorial commitment, limited skills and time of editors, and bare-bones budgets. Such journals often seem to be almost random in selection of subjects, to have few if any peer-review or acceptance policies, and to be perennially short of submissions, editorial input, and money.

Reports for diffusers may be attempted by the research

system through either or both the research report or the journal. Although the wish is widespread that research-oriented materials will serve all audiences, we do find people who recognize that it's a vain hope; and we see some materials prepared especially for extension staff and farmers. In general, these have been limited in the range of the topic, perhaps emerging more from the initiative of a researcher than from a rational decision that information was needed.

The researcher is typically the writer. The style of presentation may fall somewhere on a continuum from technically "jargonish" to painfully "down-written." The presentation is usually a duplicated format—mimeograph or cyclostyle. The overall result is seldom reader-friendly.

Popular reports tend to get the main attention of the few designated information staff available. These staff are seldom an integral part of the research system. Also they face language problems: The research system, and often the government, may operate in English or French, but that may not be a reading or even a listening language of farmers. Media present other problems: Print media reach tiny fractions of the population; functioning radios may be scarce; equipment and roads may be big barriers to the spread by audiovisual methods.

Since the information staff usually owes its allegiance to some system other than research, its definition of audience priorities may not parallel the researcher's. The writer or broadcaster may unconsciously produce for his or her own ministry brass or for the parliament rather than the public.

Communication needs in the output phase

We have implied certain needs as we have discussed findings in relation to output by research systems. But let us go a further step with some additional generalizable needs and opportunities, relating both to what is being done and what is not being done. There are needs related to strategy—knowing what ought to be communicated with certain audiences—and needs related to production—both in skillful preparation and packaging of the message. Overriding these needs is that related to understanding the potential contributions of effective communication in the life and work of the agricultural research system.

We have found some evidence of a concern for communication, but it is not an encompassing one. It has tended to be a kind of unspoken interest or expectation of a

reasonably high officer; he may apply some leadership and resources, but without a visible plan. Where information staff have been working with research output, they generally have been in limited roles of supporting or putting some polish on material that has emerged from the interest of a researcher. The outputs seem to be random in the sense of single efforts that bear little relation to others.

Persons filling the information specialist roles tend to have little formal training for their work. A typical background may be a 2-year certificate in agriculture after high school, followed by work in the extension service. Some have had a few months of workshop or intern experience with a media organization. They are then pretty much on their own. Little is offered in the way of further training, peer support, or evaluation; and they work with limited equipment. Their status within the public service system is likely to be one to two job classifications lower than the researchers they work with. Lacking both professional status and training credentials, they carry little clout as specialists in their fields.

Our coworkers in ISNAR brought back another communication-related finding from their reviews of nearly two dozen research systems. That finding is the lack of continuing and effective communication of research outcome to the government policy-makers. Unfortunately, we cannot promise that the presence of some trained information workers will necessarily solve that problem. But we feel that this need must be part of our review of the communications needs.

Input

With the exception of one area, we have not found much awareness of a role for communications specialization on the input side of the national agricultural research system. That exception is awareness of the need for continuing access to the scientific literature of agriculture. (Awareness is not synonymous with performance, of course.) All systems have some semblance of a library, which may be as limited as some basic textbooks, an assortment of free-circulation produce magazines, and a few costly journals. Some larger systems have degreed librarians, but many have no recourse to a person conversant with library science—to say nothing of information science. The librarian may be at an advanced clerical level, a person who works diligently but with little professional preparation or support.

The coverage, quality, and currency of material in research libraries leaves much to be desired. We have talked with expatriate researchers who must do their literature reviews for articles when they are on home leave or on professional travel outside the country. If you have visited such libraries, you know what we're saying; if you have not seen one, you would have trouble believing a detailed account.

Our model of the research system calls for two other categories of input information. One is policy guidance from the government itself—not an area in which information workers generally have much to offer. Another input need is from the production section, information that helps identify problems and present the reality of farming systems to which technologies must be adapted.

Few of the research systems we've seen do either of these information tasks well. Lack of national agricultural policy and lack of policy-maker awareness or confidence in the research organization seem to cast the system in a subservient role; it may not carry much weight.

Production sector input is also an area where the information specialist can do little alone. Our coworkers speak of such measures as getting researchers onto farmers' fields, staying in close touch with extension staff, getting farmers on-to advisory committees, etc.

The practical skills of the journalist would seem to offer some possible benefits in this effort. We suggest this because much of the need of the system is for careful descriptions of present situations. And the journalist's training equips him or her well as an observer and one who can describe and communicate what has been observed.

Communication needs in the input phase

We have observed numerous needs for communications in input phases of the national agricultural research system. But we have not seen many instances where people of our specialty are making contributions. Nowhere have we seen a close bond linking communications and the library in national systems. There are some trend-setting activities of this kind in some of the international agricultural research centers, where they have brought their communications and library services together in single departments. This may stimulate the kind of multidisciplinary from which both specialists gain benefits.

Throughput

Under throughput our system model identifies the interchange of information among the various units and people involved in the research system. This ranges over such difficult functions as the breaking of system policy goals into researchable units, division of labor, allocation of resources, internal reporting, and more.

If you have been critical of the flow of information in systems you work with, the odds are you've seen little to compare with the communications deserts that exist in many developing-country systems.

Few people see this area as a responsibility or province of the usual agricultural communicator. And we don't see significant leadership here for the communications specialist. If he or she can establish the credibility with system leaders, opportunities may appear where the communication skills in strategy and production can give strong support. Some exposure to the rapidly developing literature of organization communications would seem important to the communicator. Maybe it is even time to say that this is another area knowledge that would be a concern of professional communicators widely.

Putting the needs together

The communications needs of national agricultural research systems fall into two broad categories. One involves the technical competence to prepare messages—the production aspect. There is no doubt that stronger communications production support is needed. The second category comprises the broader role, the ability to determine what kind of information is needed by which audience—the programming or strategy aspect. We believe the national agricultural research systems need people with both the ability to plan communications programs and the capacity to produce and deliver them.

We have encountered a general lack of understanding of the role and importance of communications and information management in national systems. Often there is no staff member with specific responsibilities in these areas. Or the staff is undertrained, has little prestige and support within the organization, and must make do with inadequate equipment.

These systems have little access to persons trained in developing and producing agricultural materials. Communica-

tion or journalism training opportunities are few and scattered in the developing world. Strategy of development communication is taught in some places, but the production skills are seldom part of the training package.

There are some opportunities for hands-on training in production, but there is scarcely any attention given to underlying questions of strategy or purpose. Further, these opportunities tend to be in the nature of short courses or short-term internships in developed-country settings, a situation that creates another set of problems.

Most of the potential teachers of communications as a profession have their cultural roots in situations different than those of the potential students in developing countries. Cultural influences are a part of the communication environment. An extra burden is the matter of language: Students of communications are generally taught in a developed-world language, but they must work in the language of their home country.

We believe that steps toward solutions to these problems are a legitimate concern of people who declare an interest in international agricultural communication. It's a topic that deserves a place on the agenda of communicators in any working context.