PN-ABM-368

Association of U.S. University
Directors of International
Agricultural Programs

AUSDIAP

Agricultural Communicators
in Education

Proceedings

Conference Theme

Agricultural Development: Systems and Communications

The University of Rhode Island
The Dutch Inn, Galilee, Rhode Island
June 2 - 4, 1987

TABLE OF CONTENTS

Page

FOREWORD iv

SYSTEMS AND COMMUNICATIONS

The Role of Communication in Agricultural Development
Eric A. Abbott
Iowa State University 1

Necessary Elements for Development in Agriculture: What the Professional Communicator has to Offer
Bryant Kearl
University of Wisconsin - Madison 12

Key Communication Variables in Agricultural Development: A Letter to AUSUDIAP and ACE Friends
Janet K. Poley
Development Program Management Center
Office of International Cooperation and Development
US Department of Agriculture 22

COMMENTS
W. E. Lavery, Chairman
Board for International Food and Agricultural Development 28

STATE OF THE ASSOCIATION
Donald R. Isleib, AUSUDIAP Chairman
Michigan State University 32

PUBLISH AND/OR PERISH OVERSEAS

Structuring International Agriculture Programs to Promote Publication and Project Documentation
James L. Collom, Deputy Executive Director
Consortium for International Development 39

Publishing Opportunities in Agriculture for International Development Professions
Marilyn Guin
Oregon State University 46

Page

A REPORT FROM BIFAD
Robert W. Kleis, Executive Director
Board for International Food and Agricultural Development 62

NEWSLETTERS AS DEVELOPMENT TOOLS

Newsletters as Agricultural Development Tools: Characteristics and Applications
Theodore Hutchcroft, Program Officer/Publications
Winrock International Institute for Agricultural Development . 66

Newsletters as Support to Networks
Steve Kearl
University of Florida 72

Along the Path Between Prudence and Puffery; or, Can a Dirt-Brown Broadsheet be an Effective Newsletter?
A. E. Deutsch
Oregon State University 76

The Development Communication Report: Linking Worlds and People
Kathleen Moran, Editor
Development Communication Report
Academy for Educational Development 79

PROBLEMS AND PROMISES OF HIGH-TECH COMMUNICATIONS

The Role of Information Intensive Communication Systems in International Agricultural Development Projects
James W. King
University of Nebraska-Lincoln 81

Using Videotape to Enhance Technology Transfer
Dan Lattimore
Colorado State University 89

Technology and Tradition: Complementary or Contradictory Concepts?
Farhad Saba
San Diego State University 95

Needs and Appropriate Levels of Technology in Africa
Charles Kanyarusoke
Indiana University of Pennsylvania 102

Page

IMPLEMENTING COMMUNICATIONS IN DEVELOPMENT PROJECTS

Implementing Communication in Agricultural Development Projects: Identifying to Doable Parts of the Big Picture
Theodore Hutchcroft, Program Officer/Publications
Winrock International Institute for Agricultural Development . 109

Implementing Communication in Development Projects: New Directions
Howard E. Ray, Vice President and Director
Communication for Technology Transfer in Agriculture
Academy for Educational Development 123

Finding the Right Kind of Communicator for the Job
Manuel Pina, Jr., Head
Training and Communication
International Potato Center, Lima, Peru 139

WHY US FOREIGN AID? WHAT ARE THE RELATIONSHIPS TO UNIVERSITIES AND US AGRICULTURE? A COMMUNICATIONS TASK
Duane Acker, Agency Director for Food and Agriculture
US Agency for International Development 149

INTERNATIONAL PROGRAMS AND AGRICULTURAL COMMUNICATORS WORKING TOGETHER: SUMMARY AND OVERVIEW
J. Lawrence Apple
North Carolina State University 154

Minutes of the AUSUDIAP Annual Meeting 161

Resolutions Resulting from the AUSUDIAP Annual Meeting 167

AUSUDIAP/ACE Meeting Participants 170

1987 General and Spouses' Programs 178

AUSUDIAP Committess for 1986-87 187

1987 Distinguished Service Award Recipients

FOREWORD

The 23rd Annual Conference of the Association of US University Directors of International Agricultural Programs (AUSUDIAP) was held in conjunction with the Agricultural Communicators in Education (ACE) at the Dutch Inn, Galilee, Rhode Island, June 2 - 4, 1987. The University of Rhode Island and the International Center for Marine Resource Development served as host for the joint meeting. The meeting was well attended by 130 registrants and 40 spouses.

The program committee planned the meeting around the conference theme, "Agricultural Development: Systems and Communications". This meeting was the second of three proposed joint AUSUDIAP/ACE meetings and the first to be held in conjunction with the annual meeting. Several associated meetings were held prior to or after the annual meeting. Associated meetings included BIFAD Board, MUCIA, SECID, NECID, CRSP Managers, JCARD and CICHE.

Also appearing in the proceedings, in addition to the papers and reports, are the following: a draft copy of the minutes of the 1987 annual meeting, including the resolutions; the names and addresses of the conference participants; a copy of the general and spouses' programs; the AUSUDIAP committees; and a brochure on the 1987 Distinguished Service Award recipients.

The planning and execution of the conference were combined efforts of Gerald A. Donovan, Dean, College of Resource Development, Donald McCreight, Principal Associate Director, International Center for Marine Resource Development and Elizabeth Miller, Coordinator of Conference Arrangements. Assistance and suggestions were provided by Donald Isleib, President of AUSUDIAP, Tom McCowen, Secretary-Treasurer of AUSUDIAP, President-Elect Eugene Adams and Don Esslinger, ACE representative for the program committee. The Dutch Inn coordinator Terry McGovern arranged the spouses' program.

The Role of Communication in Agricultural Development

Eric A. Abbott
Iowa State University
Ames, Iowa 50011

Over the past 25 years, each discipline has taken its turn in pronouncing itself as "the engine of development." Agricultural economists in the 1960s wrote of capturing the surplus from agriculture to power the forces of industrialization. Political scientists studied experiments with democratic or revolutionary governments -- such as Barrington Moore's classic Origins of Dictatorship and Democracy -- to see how agriculture and political institutions shaped development. Sociologists and anthropologists studied cultural and institutional relationships. Educators studied the role of universal education in development. Engineers focused on building more roads, dams, irrigation canals, buildings, and other infrastructural developments.

Communicators have had their moment of myopic glory too. In the 1960s, we busied ourselves counting cinema seats per thousand inhabitants, transistor radios, newspapers, etc. We then discovered that the content carried by movies or radio programs was for the most part irrelevant to farmers or development. Others then focused on content -- shaping media output along certain thematic lines to encourage a development orientation (achievement motivation). That too failed as a development solution. Farmers need more than development slogans to make progress. The old adage, "If wishes were horses, beggars would ride," applies well here.

The result of these individual disciplinary experiments has been two realizations:

1. Development is much more complex than had been realized;

2. A multi-disciplinary or interdisciplinary approach is necessary.

Armed with the insights gathered from the experiences of the 1960s and early 1970s, the World Bank, the United States Agency for International Development, and other institutions began broadening their projects to include a number of disciplinary concerns. The World Bank, which had focused on construction of roads, bridges, irrigation canals, and other structures, now began a concerted effort to improve agricultural research and extension institutions. Between 1970 and 1980, for example, it spent more than $1 billion in Indonesia to develop research, training, and extension systems. It launched the Training and Visit extension approach, which while not loved and adopted by everyone, at a minimum has called attention to the problem of effective extension. In addition, the Bank has begun to fund projects with an undertanding that they will likely run 10 years or more, instead of the five-year previous maximum.

USAID has been characterized by some as having a fickle but sometimes interesting approach to development -- willing to try a range of new ideas, but often not willing to stick with them long enough to integrate them into a country's structure. Through its Farming Systems Support Project (carried out by the University of Florida), it provided training materials and project support that emphasized a multidisciplinary approach to identifying and solving problems of small farmers. Yet it cut back funding for this project substantially after three years, and terminated it after five.

A second relevant project is the Communication for Technology Transfer in Agriculture (CTTA) Project, administered by the Academy for Educational Development. This project explicitly states that communication in agricultural development can make a contribution only when certain other conditions are present -- a useful technology which has not been adopted but is available to farmers, a communication system which can communicate with those farmers, and some market or demand for whatever it is can be produced. The project seeks countries and other USAID projects which can provide this necessary basis for communication activity.

From the preceding, I conclude that the role of communication in agricultural development should be seen as being no less important, nor more important, than the role of any other discipline in the development process.

Recently, a number of people have begun looking at the many roles that communication can play in the agricultural development process. Mason Miller, of WINROCK, has been a tireless advocate of using communication knowledge and skills to improve development projects. Rosalie Norem, Iowa State; Don Esslinger and Herb Lionberger, Missouri; Steve Kearl, Florida; Gretchen Graham and Jim Bemis, WINROCK; and others have created a task force to examine communication problems in farming systems research and extension. Rosalie Norem and I are now developing a model to systematically integrate communication into development projects, which will be presented at the October Farming Systems Symposium in Arkansas.

In the brief time I have this morning, I can't begin to discuss the whole model. But I do want to mention some examples of how communication can be better used to supplement development activities. Since most of you are involved in agricultural development projects, my examples will focus on the role of communication in those projects. In my examples, I will focus on communication in three project phases:

1. Project Planning and Development;
2. Project Implementation
3. Post Implementation

Within each phase, I want to talk about three types of communication problem areas. These are:

1. Coordination
2. Training and Orientation
3. Materials Produced

I will begin with Project Planning and Development.

I. Project Planning and Development. This is a crucial phase of a project, and one in which communication can make a much larger contribution that it usually does. In this phase, I include design visits to the country, writing up a proposal, recruiting members of the implementation team and training or orienting them concerning the project, and other activities occurring before field activities begin. The first communication activity I want to focus on is coordination.

A. Coordination. One of the most difficult tasks in developing an agricultural development project is gathering together the critical mass of individuals and organizations from both your university or consortium, and the host country in which the project will take place. In the host country, studies by INTERPAKS of the University of Illinois are showing that the number of involved donor and national institutions can be quite large. In Bangladesh, they found more than 600 donor institutions with a goal of helping develop agriculture. In Ecuador, they counted more than 120 donor institutions. The agricultural development process is clearly becoming more complex simply because of the number of players. Local institutions too are proliferating. Thus, a key aspect of the project planning and development process is to network between this complex of host country and donor institutions to find out what has been done, what will be done, and what should be done. Very often, these organizations have little or no knowledge of each other, and may be carrying out contradictory activities.

Meanwhile, back on your campuses or consortia, a second networking problem has emerged -- that of collecting and organizing your talent to analyze and develop a project proposal. The multidisciplinary nature of many current projects has greatly increased the complexity of this task. Generally, universities that have cross-disciplinary appointments and interdisciplinary "centers" of one type or another are in a better position to solve this communication problem. Those which separate activities strictly into "agriculture," "social sciences," etc., are at a disadvantage since there is often little interaction across disciplines.

B. Training/Orientation. Prior to the implementation of a project, some preliminary training of the project team, host

country staff, or support staff is usually necessary. This covers project concerns, but also "survival" concerns. Interestingly, information about "survival" concerns -- which play an important role in reducing anxiety and making team members more productive -- is often not systematically collected. I recently flew into Amman, Jordan, not knowing where the airport was, whether or not I had a hotel reservation, where USAID was, whether the country was relatively safe or not, etc. I was the chief of party. Effective project implementation often depends on selecting host country individuals for training as soon as possible, yet the process by which this is done is often flawed. Many expatriots treat the selection of a person for training as a technical question, while in the host country it is a political decision. No wonder frustration is a common result. An effective communication system here cannot solve all these problems, but it can solve a number of them, and it can help manage those that are more difficult to solve.

C. Materials. A wise colleague once told me, "when you are about to undertake a project, always assume that something similar has been done before. Usually, you'll be right." While many projects do include new or unique aspects, overall there is a great deal of experience out there in the field. The trick is to find it. This means database building -- such as use of the farming systems information database developed by Kansas State University in cooperation with the Farming Systems Support Project, or many other databases. It also means training your traveling staff to keep a little space in the suitcase for fugitive documents they encounter overseas. And having a method for storing and classifying them when they return home. A good librarian trained in agriculture and database management can be a tremendous asset to a development project. But how many project planners are using librarians with these skills? How many projects are budgeting money for this purpose?

Preliminary design documents, RFPs, PPs, and a host of other documents are assembled during the project planning phase. Of interest here is the tremendous amount of information that is accumulated by this process that is <u>not</u> in these documents. On a recent design team mission to Jordan, I and my two team members prepared a 70-page preliminary design document which was delivered to USAID, host country individuals, etc. However, during our three weeks in the country, we developed <u>another</u> 60-70 pages of notes which were relevant to project development, but not of sufficient importance to go into the document. Often, such other notes explain why certain people were contacted and others weren't, why one agency isn't cooperating with another, etc. This type of information can be of great importance. If the design team is not the same as the implementation team, some way should be found to transfer that extra information.

II. Project Implementation. Project designers often think of communicators here as persons who prepare mass media messages, brochures, and other documents. But the role of communication is larger.

A. **Coordination.** One crucial aspect of any project's success is the degree to which the members of the team can work together -- understanding each other's role and complementing it. As projects grow larger and more multidisciplinary, this is becoming a more serious problem. Depending on our disciplinary background and experience, we look in different places for evidence of how a project is doing. An agronomist, for example, will want to look at crops in the field. An economist wants to look at market information and records of previous economic studies. A communicator judges how a project is going by how effectively people communicate with each other. These different orientations often make it difficult for team members to understand each other. In one project I worked on, it led to such a split that members of the team would not even talk to one another.

The important thing here is that this is a communication problem, and one which can be predicted in advance and dealt with by training. At a recent Farming Systems Symposium at Kansas State University, the chief of party of an African project was describing the great difficulties his multidisciplinary team had in working together. After a week in country, they had been unable to reach any agreement on how to study farmer's conditions and make recommendations. The chief of party was just about ready to throw in the towel. Suddenly, there was a coup in the country, and the team members were trapped in a basement for several days with bullets whizzing by overhead. When they emerged from that basement, they were a team -- and functioned effectively from that time on. I wouldn't recommend scheduling a field visit at the time of a coup. But I would stress that simply trying to pick compatible individuals will not solve this problem. Some team training is necessary.

B. **Training/Orientation.** When I return to Iowa State, I will begin our international agricultural communication and media strategies course offered through the USDA's Office of International Cooperation and Development (OICD). One thing I've learned over the past five years of involvement with this course is that training materials must be designed for several different uses. And this is a communication task. First, I need training materials that will help participants understand how to communicate more effectively during my course. These are the kind of materials we usually think of first. But second, the participant needs materials to use when he or she returns home, and often, these are not the same as those provided when the participant is attending the course. It's a little like a computer instruction manual. We start with a tutorial, but after

we have mastered the basics, the tutorial is very awkward to use. We need a trouble-shooting reference guide.

There is a third set of materials that is needed too. When those participants return home, generally they must meet with their superiors to report on what they did -- what they have learned. Some are even awaiting job assignments based on what they accomplish during the training. What they need is a set of materials they can use to show their bosses what they have learned. This may consist of a quick slide show, or overheads, or a flip chart -- a quality but quick presentation for a boss with very little time.

The point here -- this is a communication task, which carefully considers the needs participants will have for training materials, and then helps design appropriate products.

C. Materials. I want to talk briefly about three kinds of materials that are produced during a project's implementation.

1. Materials for distribution to client groups -- farmers, wholesalers, buyers, etc. These may be brochures, radio messages, directories, posters, or any of a variety of media materials. Recent projects have taught us several lessons about these materials: they must be integrated with whatever extension or other organizations are doing; they should be multi-media to reach people by different channels; they must be repeated and repeated and repeated.

2. Regular or periodic reports by project staff to country officials, donor agencies, and your own universities. These are usually mandatory, and often contain valuable information. However, they are seldom organized to be useful beyond the particular agency for which they are intended, and very often they are long, poorly written, and obscure. The trick here is to mine these documents for the important information they contain, and then translate that important information into useful forms -- slide shows for the donor agency, state legislature, etc.

3. Information/experience for future projects. Capturing the nuggets of wisdom from a project -- what works and what doesn't work -- is a crucial part of the value of any project. Most of the projects with which I have worked are weak in this area. We pour our energies into the mandatory reports, and talk about the really interesting project aspects over the cocktail hour at a bar. There are several parts to this problem. We need a way to systematically mine projects for their lessons. This can be done by having a retreat of staff at intervals to report and write down lessons learned. It often cannot be done during regular working hours, when the minute-by-minute demands are too great. Another aspect of this problem concerns publishing opportunities for results. Academic staff need to publish in journals, but the

demands of these journals for a tightly focused view through the lenses of a particular discipline often distort the multidisciplinary insights generated by a project. We need to encourage other avenues, such as the Clearinghouse on Development Communication currently operated by the Academy for Educational Development, or a number of interactive databases which have been created.

III. Post Implementation. Usually, after implementation, one talks about evaluation. Although this is an important area with which communicators should be concerned, I'm going to skip over it in the interest of time today, to talk about a different area that I think needs more attention. That is the area I call "post implementation." Basically, it boils down to this -- What happens when your project succeeds? Suppose your purpose was to introduce a new crop in an area -- say, cassava -- and that you organized farmers, got them some credit, and now have a substantial production of cassava in the area. Now, we know that somewhere back in the project paper we were concerned about how to market that cassava, but often that either is not a direct part of the project (the government cooperative is supposed to take care of that), or it is placed on the back burner until late in the project.

A. Coordination. The interesting thing to me here is that the group of people or organizations with which a project works changes dramatically when you move to the post-implementation phase. During implementation, a project is often focusing on the farmer in a specific region, his or her production problems, his or her organizations, etc. Now, to handle production, one often needs to work with truckers, wholesalers, processors, and other groups. This usually requires a national or at least regional network, or even export firm involvement. In sum, you need to communicate with a very different kind of people in a very different place. And the people that the project hand-picked because they were good with farmers are now not the people that are needed. Instead of the field worker, we now need a business facilitator. This is a communication problem which requires understanding of how the different business and agricultural networks operate in a country.

B. Training/Orientation. Training is clearly needed here for farmers in how to select and grade produce for the various markets for which it is intended. Often, how to develop a system for collectively marketing produce and training farmers in how to participate in that system is an important problem. Training is also needed for businessmen or government agencies in how to deal with farmers -- understanding their credit needs, cash flow, and transportation problems.

C. Materials. Posters included with packing boxes, grading charts, and other materials are needed during this project phase. Often, these can be supplied by exporters or processors. In addition, materials are usually needed to help farmer cooperatives or other organizations keep track of records of payment, manage production, etc. We need to keep in mind that the quality of materials we use for farmers probably should not be the same as the quality we use for merchants or business people.

Plugging Communicators into Projects

Based on our discussion to this point, I would like to suggest some places where communicators or communication responsibilities can be plugged into projects. Good communication in a project doesn't usually just happen. It must be planned for and budgeted for from the beginning. Thus, an important role I would see for communicators would be in analyzing project papers, RFPs and other documents to identify communication problems and opportunities.

Here is a simple example. Projects these days often involve purchase of a computer and some software. Who makes the decision about what computer and software is purchased? I'm guessing that it is either a scientist who wants to make sure the computer can do a particular kind of data analysis, or an administrator who wants to make sure it can do Lotus or spreadsheet analysis. Yet the computer is a powerful tool for production of training materials, database building, and other communication concerns. Shouldn't the team get some advice from a communicator before making this purchase?

We know from looking at past projects that communication problems often emerge during a project and must be dealt with. That is why communicators are often added to a project on an emergency basis rather than being budgeted for from the beginning. This experience with add-ons can be used to argue for more of a role for communicators from the beginning. On my most recent design mission to Jordan, when it came time for the inevitable budget-cutting session with the ag development officer at USAID, I found that a number of communication functions were selected for budget reduction because they were vague. The more specific I became about explaining exactly what was needed, the less they were cut. This argues again for a communicator's hand on the budget sheet to explain and justify expenses in this area.

Communication responsibilities and capabilities must be assigned to job duties of project staff. Such responsibilities include:

a. developing a system for capturing knowledge learned from field visits, international trips, or project experience;

b. preparation of materials so that counterparts and in-country staff can continue the work later;

c. those with training responsibilities should get instruction on how to train. We should not assume that persons located at adjoining desks will exchange information.

I would argue that a number of larger projects need a full-time communication person. In projects where extensive intra or inter-agency coordination is necessary, where training is a key component, or where many materials are to be designed and delivered to a target audience, a communicator on staff can be justified. This person could be a local national or an expatriot, depending on the needs of the project.

Many other projects are too small in scale to afford a full time communications person, or they lack a substantial communications component. In these cases, communicators can be used:

a. to get communication input into the project at planning time;

b. to train project staff in communication problem areas they are likely to encounter before leaving for their assignment;

c. for short-term repeated field visits to initiate and monitor communication aspects of the project.

Expected Payoffs of More Investment in Communication

More investment in communication must result in better projects if it is to be worthwhile. Areas of improvement I would expect include:

1. Better intra and inter-staff coordination, including ability to work together, share information, and generate holistically oriented proposals and products;

2. A better system for monitoring project results for reports, and the ability to convert knowledge gained into a wide variety of printed or audio-visual reports for different audiences. This is especially important for meeting in-country, donor agency and home university needs;

3. An improved documentation system, capturing lessons learned from the project, and both project and "survival"

information. This may also include sharing with databases;

4. Finally, overall improvement in projects and their relationships with host government officials, home universities or consortia, and donor agencies.

Some Future Trends

Systematic attention to communication concerns can yield a number of valuable results in the next 10 years. I would like to illustrate these possibilities with three examples:

1. In Ecuador, a computerized feedback system has been developed to monitor health care distribution on a weekly basis from a sampling of clinics around the country. The problem was that total immunization dosages were being counted, but what a particular patient received could not be determined. There are similar possibilities in agriculture. We know how much new seed is distributed, how much fertilizer, how many chemicals, but we don't know exactly how they are being integrated into a farming operation. A small sampling which is fed continuously back to the Ministry of Agriculture would solve two problems. First, it would ascertain the combination of uses of agricultural inputs. But second, and perhaps more important, it would for the first time provide accurate and current information to top agricultural decision makers that could be the basis for informed decisions.

Many agencies now make decisions based on tradition, friendships, political affiliations, or bribes. Information could force changes in how agricultural decisions are made.

2. There is a need to develop the institutional capability of a country to communicate about agriculture to farmers and other audiences. However, our approach over the years has been to import our techniques and materials, use them effectively, and then leave. In the Dominican Republic, a student and I studied the rise and fall of agricultural communication over a 25 year period. It rose and fell in perfect correlation with donor presence and assistance. What is needed is more attention to indigenous capabilities and methods. I recently conducted a study of a small volunteer newspaper in southern Iowa. It is produced by mimeograph, with advertising and headlines hand lettered on the stencil each week. When I discussed more modern printing methods, the response was interesting: "The important thing to us is to be able to do it all here -- to control it and have it be a part of this town." The technology has to take a back seat to the

desire and ability of the town to continue it. In my recent visit to Jordan, after our presentation concerning a new communications project, the question was similar -- "In an era of declining budgets, how can you show us that the things you do in this project can be continued after you leave?"

3. We need to increase the ways in which we share information about project successes and failures. This can occur through support and expansion of the Clearinghouse on Development Communication, through enhancement of databases, or through the development of journals which encourage multi-disciplinary focus on development issues. There are some models available -- INTERPAKS at the University of Illinois, the Land Tenure Center library at the University of Wisconsin, and the Database development and newsletters of the Farming Systems Support Project. Much more is needed, and it should focus on both the need to share information with the host country as well as sharing it with disciplinary or donor audiences.

NECESSARY ELEMENTS FOR DEVELOPMENT IN AGRICULTURE: WHAT THE PROFESSIONAL COMMUNICATOR HAS TO OFFER

by

Bryant Kearl

Anyone who has worked in agricultural development in other parts of the world will understand a story I heard the other day about the distinguished Japanese violin teacher, Professor Suzuki. Many of you are familiar with the Suzuki method. It is very effective, but there is a lot of ritual to it. The angle of the violin is specified, but so is the angle of the feet and even the way the child bows after a successful performance.

The founder was already an old man when he last visited this country a few years ago to get reacquainted with teachers, pupils, and parents who were following his method. During one of these sessions a confused mother said, "Professor Suzuki, in your talk today it seemed to me you were saying just the opposite of what you told us a year ago. Would you explain for me?"

Without a minute's hesitation the professor replied, "Madam, you are right. You have no idea how much I have learned in the past year."

In the realm of agricultural and economic and societal development, I am sure that all of us feel that way. First, there are the ways in which our own broader experience has made us more competent and understanding. Second, the disciplines that relate to development have grown in similar ways and for similar reasons. Many of the accepted truths about development have managed to survive the test of experience, but many others have not. The one thing I am sure about, after observing and working with development projects over the years, is that our ability to work effectively depends on our capacity to learn and to grow.

---

* Professor of Agricultural Journalism and Dean of University Outreach, University of Wisconsin-Madison, Madison, WI 53706

Eric Abbott has reminded us that even within the life of a development project the communications requirements change and new skills come into play. His message was addressed to all of those who make up an agricultural development team: scientists, extension workers, bureaucrats, marketing agencies, manufacturers of inputs, journalists, planners -- the whole range of talent that is involved.

I would like to speak more narrowly, because I want to limit myself to the role of the professional communicator. At the same time I want to review some of the ways that perception of the communicator's role has been expanding in the long span of years since the Marshall Plan and the Point IV program introduced Americans to the need to promote agricultural development in the hungry countries of the world.

My friend John Fett complains about the literature of development being usually anecdotal rather than research-based. I will plead guilty. There are three things I want to do in this paper, and none of them include offering any statistics or reporting things I have "proved" in a scientific sense.

First, I want to start with the kind of personal anecdote about which John Fett complains.

Then I will mention a few areas of communication where I think there is much more for us to learn.

Finally I will offer some unsupported -- but testable -- hypotheses about the qualities I believe make a professional communicator most effective in agricultural development projects.

Let me start the anecdote by pointing out that I, like most other American agricultural journalists, got into teaching and training during or after periods of practical experience as a working professional in American journalistic media. Sometimes through our work in agricultural college editorial offices, but sometimes with the media themselves, we trained ourselves in the communication skills used by our newspapers, magazines, radio stations, and other media.

This practical experience with American journalistic media has been our great strength as teachers, trainers, and practitioners -- but it has also been our greatest source of weakness. It has been very painful for us to learn to define communication as broadly as it must be defined. For example, we tend to be uncomfortable when agricultural libraries and documentation

services, for example, describe themselves as "communication" or "information" centers. They are, of course, and our success as development communicators depends on us accepting that librarians a lot of other professionals who have been outside our framework of experience are valuable and valued members of a development communications team.

To go back to the personal anecdote, my first experience with communication in agricultural development was in Germany in 1952. As part of the Marshall Plan I had the pleasant assignment of offering a three-month agricultural journalism training course for 25 young Germans who held university degrees in agricultural science.

All of this had been promoted by Hadley Read and Bill Sumner and Norman Smith, who had decided that the rebuilding and modernizing of German agriculture would be advanced by arming such a group with journalistic skills they had never studied within their educational system.

The effort was a success, which is to say that the group certainly did have an impact on various areas of German agriculture in the next 35 years, although I would credit a great deal of their achievement to their basic good sense and the healthy things that were happening to the whole German economy in the years that followed.

My reason for mentioning the course, though, is to present a case study of the blinders a person wears in moving to another culture.

For purposes of that course I defined agricultural journalism strictly in modern American mass media terms. My students and I spent some time on basic news and feature writing, a little on radio and visual techniques, and then a great deal on directed practice with the established communications media I knew so well.

If I were asked today to organize a course on using communication to influence farming practice, I would do something quite different. What did I leave out of their program? Everything about interpersonal communication. The planning of meetings and conferences. Library resources and documentation services. Communication within organizations. The role of farm organizations. The communications needs of business and industry. Communication between peasants and the people who set policies that affect them. The use of business channels as ways of communicating technical information on agriculture. And a great deal more.

I may not have been qualified to teach those things, but at least I should have acknowledged that they exist and that they are important.

Instead, we spent some time on the then-current media-focused folklore about the diffusion of agricultural innovations. As a journalist I acted as if the media were central to every change in agricultural technology. As an American-trained journalist I had a difficult time coming to grips with media and channels so different from ours.

In Germany, radio was a government monopoly but operated at the state level rather than, as in Britain and India, as a national enterprise. It was different from U.S. commercial radio, from U.S. educational radio, and even from the BBC, about which I had at least done some reading. I knew that its structure made a difference to program planning and presentation, but I certainly didn't give my students much useful guidance on how to work with the only radio system available to them.

The most widely circulated farm magazines were farm organization journals, and they gave much more attention to the politics of agriculture than to technique and technology. How should this have changed what I was teaching young Germans about the place of their farm press in agricultural development? I didn't give it a thought; the textbooks I taught from were the Wisconsin Agriculturist and Country Gentleman and Farm Journal and Successful Farming.

Germany had an elaborate system of vocational education for agriculture, but I never dealt with it as a communication channel.

Cooperatives were important -- but because they were quite a different kind from ours I gave them scant attention. Agricultural fairs and expositions also played a different role than I was accustomed to, and so I gave them short shrift.

Even the patterns of transfer of land ownership were significantly different from what I had known in the U.S.; for example, there was no market for farm land because virtually no land ever went on sale. Most was transferred by inheritance -- but the patterns of land inheritance were totally different in Protestant North Germany than they were in Catholic Bavaria, and this difference affected the kind of capital investments farmers were able to make and thus the kind of farming practices they could consider.

I know now that all of these things should have affected what I was teaching these young Germans about communication of technical information to farm families. But I suspect I offered them exactly the same kind of course I would have given in Guinea or Gibraltar or Georgia.

At least I had sense enough to invite the few established local agricultural writers and broadcasters to address my classes, and most of them were very helpful, and only a few of them told the students that journalism cannot be taught and that journalists are born, not made.

A few universals made my job easier.

Clear writing is clear writing, in any language or culture. In the German farm magazines of that day, "dignity" was the defense used for an almost impenetrable writing style. My limited language skills were a kind of a blessing, because I could try to teach the kind of simple direct writing that I myself understood. Complicated sentence structure, pedantic style, and unnecessary scientific terminology become vividly visible in someone else's language.

There are some universals about oral communication and about visual presentation, too, and we had a chance to look for them. In classroom exercises I was happy to find that in German, as in English, a radio interviewer can kill any interview by using questions that allow the interviewee to answer with a flat "yes" or "no", and that clever interviewers can make the program come to life by asking questions that begin, "Warum. . . why?"

Fortunately, too, Germany was a lot like the U.S. in such things as level of literacy and strength of educational and research institutions.

Just the same, I behaved like a Wisconsin agronomist teaching German farmers about the crops and cropping practices of the American Great Lakes States. If what I offered turned out to be relevant to their situation, the students were lucky but the teacher didn't deserve much credit.

If I were doing it again I would, like a good agronomist, spend as much time as I could learning about local field conditions -- the new technologies that were realistically available in the country or region, the resources and institutions that affect agricultural potential, the media and channels that are or could be available, the differences among rural families in terms of the capital and other resources they have available for improvement in agricultural practices.

As I have gotten acquainted with other countries I have found, of course, even more striking differences in communication needs, resources, media and channels. Some of these are fundamental.

Most countries in which agricultural development is being promoted so urgently are, almost by definition, countries with no true commercial agriculture and therefore with none of the commercial media or channels that depend on advertising for their support. This rules out precisely the channels that Americans have had the most experience in using.

Let me mention another extraordinarily significant point that even today we tend to minimize or overlook. A characteristic of almost every developing country is a lack of local communications professionals and a virtual absence of locally-based agricultural or technical information. With all due respect to the U.S. Department of Agriculture, how well would we be serving American farmers if the only technical information we could give them was what originated in Beltsville or Washington D.C.? That's the situation most developing countries face -- and the more desperately they need development the less localized their scientific and technical information systems are.

American agricultural communicators have learned and practiced their techniques in countries of general literacy; we are trying to contribute in settings where literacy is low.

Many of the societies in which we hope to be able to contribute have a strong oral tradition that we can only dimly appreciate, and the spoken word and interpersonal communication play a role for which our experience doesn't prepare us. Shouldn't we be able to make better use of this kind of tradition?

Even the American concept of what a farmer is may mislead us; there are plenty of examples of Western-trained journalists talking about "the farmer. . .he" when "the farmer. . .she" would be more to the point.

Occasionally we also get misled by expecting too much from our local colleagues. Sometimes the agricultural bureaucrats and specialists of a developing country know less about its rural or peasant background than we expect because the road to the kind of jobs they hold, even in Ministries of Agriculture or agricultural colleges, was apprecialy smoother for the urban youth than for his country cousin. As many of you know, there are many agricultural colleges in developing countries whose graduating classes are made up largely of young people who grew up in urban centers and have never been part of a household whose members tilled the soil for a living.

What are some of the practical things that U.S.-trained communicators can do to increase their effectiveness in working with other economies and cultures?

I was about to make a single central recommendation, "Be ready to learn." But that is too simple an answer. It isn't an issue of willingness as much as opportunity. I would say, instead, "Insist on being given the time to learn."

Too often USAID and other foreign assistance agencies throw us into situations where we have to deliver quickly and then depart.

Universities need to insist on contracts and agreements that allow time for their staff to get a better orientation to the country where they are going. . .to read about it ahead of time. to travel locally there. . .to pick up at least a little of the key local languages. . .to get acquainted with people who know its agriculture and culture. For most countries now there is a reasonable body of research and documentation that will help a stranger understand them. For a professional communicator, it is as bad not to seek this out as it would be for an agronomist not to learn what he could about local soil types, climatic conditions, and cropping patterns.

I said I would mention a few of the areas where our knowledge is not adequate. These unanswered questions are more than local in their significance, and they cry out for original research.

For example, only a handful of studies have explored the potential for using the printed word in societies of low literacy. Marion Brown did one of these a few years ago and came up with the conclusion -- not so surprising once it has been demonstrated -- that as long as any one member of the family is literate the family as a whole has access to printed technical information. Brown demonstrated that for this reason a newsletter can be a useful communication tool even where most farm operators are unable to read. In fact, he found some evidence that in a non-literate society the very scarcity of the printed word may make it more prized and more influential.

We need to study better ways of communicating in societies where few people can read and write. We also need to learn more about how to promote adult literacy without waiting 30 years for the schools to give us a new generation of readers.

Pictures are worth a lot of words, but we still don't know enough about how to use them. Research and observation both reveal that many of the pictorial symbols that you and I would consider "obvious" are not at all understood unless the reader has specifically learned their meaning.

All of us understand that a person or animal in a drawing is supposed to be moving rapidly if the artist has drawn straight horizontal lines and a cloud of dust behind it. However, not everyone recognizes that particular symbolism -- only people who, like us, have read comic books and seen "Roadrunner" cartoons.

To take another example, most of us would expect to be able to use a drawing of footsteps in a field in order to show that seeds should be planted in hills a certain number of footsteps apart. But we can be sure that certain readers will still interpret the picture as advising the reader to firm down the soil between hills by stepping on it.

The whole pattern of circulation of technical information in low income rural regions deserves more study. You may remember when Mexico, about 20 years ago, experimented with a new strategy to get dramatic increases in corn production. It depended on heavy planting rates and equally heavy fertilizer applications.

The plan originally called for experimental and control groups of farmers. As an experiment the process fell apart because so many of the farmers in the control group, seeing what was happening on neighbors' fields, moved over and joined the experimental group without being asked. Exactly how did the word spread? Why did it happen in this particular case but not in some others? How could we make it happen more often?

By the way, one finding from this so-called Puebla experiment was that modern corn production required changes in governmental and credit and supply organizations that were often harder to bring about than changes in farmers' practices. Communication of the realities from the peasant cornfield to the board room of the credit bank or fertilizer marketing agency was slow and difficult. What do we know, or what can we learn, about how to speed up that particular kind of change?

Good agricultural communicators in this country have found it necessary to invent channels when what they needed did not exist. Our predecessors literally invented the field result demonstration. They created 4-H clubs and homemakers clubs. They organized tours, for community leaders and policy makers as well as for farmers. They worked with the railroads to carry traveling agricultural exhibits all over the State. These were all communication inventions to cope with particular local conditions and needs. Because the established media now work so well for us, have we lost the ability to be inventive? And, more important, the ability to inspire inventiveness in our students?

We need to learn more about the usefulness of traditional media. My own view is that some development theorists have over-estimated the usefulness of folk drama, balladeers, and traditional story-tellers in affecting agricultural practice. But that is only an undocumented guess. Shouldn't we find out more?

At the same time, we need to evaluate various kinds of high tech in a low tech world. What can we and can't we accomplish by means of computers and video recorders and satellite transmissions in countries where there are more homes using flashlight batteries than electric lights and where bicycyles are the commonest common wheeled vehicle?

One other issue:

I've just been reading a paper by a social scientist, Ulrich Nitsch, who hypothesizes, on the basis of his work in Sweden, that farmers everywhere operate in a different kind of value structure than the agricultural scientists, agricultural journalists, and agricultural extension workers to whom they look for information.

Nitsch says the specialist is likely to assume a linear approach to problem-solving. Goals are limited and are stated in quantitative and economic terms -- gallons of milk or bushels of grain or dollars of profit. The research and extension establishment then provides information that can be used in relation to those goals.

Even in a modern industrialized country Professor Nitsch suggests that the farm family does not follow that recipe for problem-solving and is, in fact, governed by significantly different values than those of the agricultural scientist or educator.

"In the cultural context of an advisory service," Nitsch explains, "farming is understood primarily as an economic activity aimed at the efficient production of food."

"In the cultural context of farmers. . .farming is mostly understood as caring about family, animals, and nature, or, in other words, stewardship and a way of life."

Income is not irrelevant, but it is a means to an end. The farmer gets satisfaction from family and environment. Once the needs of subsistence are met, the farmer is much more concerned about what the children will be doing in another 15 or 20 years than in this year's corn harvest. Economic efficiency may be necessary for the farm family to survive, and to that extent the help of agencies that can contribute to efficiency is welcome, but most farmers, Nitsch insists, firmly deny that they are operating a business enterprise.

Whether you accept or reject his position, I think you will agree that it has consequences for development and deserves careful study in a variety of cultures.

As you can see, I think there is still a fairly full agenda of things to be learned about communication in development. I hope a few agricultural communicators working abroad will find the time to search for answers for some of these questions -- and to involve their local colleagues in the search.

Now I said I would close by offering some testable hypotheses as to what it takes to be a professional agricultural communicator working successfully in agricultural development in a low income country. They aren't altogether, but they are nevertheless worth testing.

First, I think the U.S.-trained professional communicators who have been recognized as most successful in technical assistance have been persons with sound journalistic skills and technical competence. Basic knowledge of photography, printing, writing, editing, graphic arts, broadcast techniques, computer programming, library cataloging, or other skills can be used in almost any national program. There are limitations of resources that have to be understood and may not be surmountable, but the visitor who can help overcome the limitations of knowledge is always welcome.

Second, however, the person who is only a technician with a particular channel or medium will never be as successful as the one who is interested in all of the communications tasks of a development project. A person invited to serve as a radio specialist, for example, will find additional rich opportunities to contribute if he or she has also taken the time to learn how to organize meetings, how to promote interpersonal communications, how to build an information network that can inform the nation's agricultural policymakers -- how to be part of the whole development team, not an isolated specialist.

Finally, of course, the most useful people will be those who understand that they are first of all trainers. When they complete an assignment abroad they will leave behind a legacy of equipment and knowledge and a feeling of regret at their departure. But their most durable contribution will be a strong group of local people who can, in the end, do a better job of communication than the outsider could ever do.

# # # # #

SYSTEMS AND COMMUNICATION

Key Communication Variables in Agricultural Development

"A Letter to AUSUDIAP and ACE Friends"

Janet K. Poley

Dear Kathy, ACE and AUSUDIAP Friends,

How are you? I am fine, but a little frustrated that our modern communication technologies still won't allow me to be in two places at the same time. Today I'm helping to facilitate a two week workshop for USAID on the State of the Art in Agricultural Technology and Policy and unfortunately cannot be there in person.

As you know, Kathy, we reviewed a variety of communication alternatives to cope with the situation. We decided you were too large an audience for video, our budget wouldn't allow teleconferencing, and slide-tape seemed too static and impersonal.

So I am resorting to an older, reliable form of communication - the letter. As with most of my ideas, it was inspired by someone else, in this case a close Ghanaian friend. Incidently he is a leading telecommunications systems architect in Bell Laboratories, but is still a great believer in the old-fashioned letter.

He thinks letters are superior to phone calls and certain other communicating channels because they require the person sending the message to reflect and compose. The sender can't expect "instant" gratifying feedback, and yet he or she invests time in reflecting, writing and sending a considered message. Benefits to the receiver are that it can be read if and when he or she likes, it can be saved and reread and even shared with others.

Maybe, friends, I have also chosen a letter because it is almost my only source of keeping touch with the Tanzania Training for Rural Development Project with which I have been associated with for nearly nine years now. It is from this case that I will try to share with all of you a little about key communication variables in agricultural development.

Time is too short to go into all the details of the USAID financed project, now termed program. But I think some of the success that has been achieved holds lessons of interest to people concerned with an "Open Systems" approach to communication and development.

I don't know about all of you, but even after spending the past twenty years working professionally with communication and development, I still find it hard to precisely define the two terms. And yet, it isn't difficult to go into a situation and determine whether communication is dynamic, healthy, energetic and developmental.

For me, rural development is a process without shortcuts, without easy solutions. It takes time, planning and replanning, flexibility, patience, commitment and a great deal of hard work. I have recently become encouraged by the new way some of the most respected development scientists have become to redefine the important variables required to energize, drive and sustain agricultural and rural development.

Norman UpHoff of Cornell presented a paper at the recent meeting of the American Society for Public Administration called, "Drawing on Social Energy in Project Implementation: A Learning Process Experience in Sri Lanka". He contends that our input-output systems models are sadly lacking and that we should recognize that responses to and transformations of inputs aren't predictable because human enterprises resemble machines only by analogy.

He contends that we have overlooked the importance of "energy" and the dynamics of "energization" and that blueprint systems planning won't necessarily result in development. He goes on then to outline the three sources of generating developmental social energy: IDEAS, IDEALS and FRIENDSHIP. I think this configuration offers a lot to both the communication process and product oriented professionals. On the process side, it is communication - interpersonal, organizational and sometimes mediated - that allows the sharing of ideas and ideals and the creation of understanding friendships.

In TRD we developed a very open system philosophy and set of norms and then (in a product sense) wrote about our ideals in statements reminding ourselves to be open, participatory, caring about the team, creative and committed on flip charts, overheads, slides, posters and notebooks.

We used every means available to us to bring people together for idea sharing. More than 3,000 Tanzanians participated in planning meetings, workshops, village training sessions, highly interactive problem solving management development workshops, audio-visual workshops focused on creativity and confidence building, national coordinating committee meetings, implementation committee sessions, microcomputer workshops and a lot of less focused travel and social time together.

We used methods for communicating with each other that were consistent with our norms. They were rooted in respect, participation and problem solving together as teams. Responsibility and reciprocity weren't just assumed, they were expected if one was to remain in the TRD family.

We didn't compartmentalize our attention to the importance of communication within the project. While we did provide some specialized communication technology training for a small group of Tanzanians, we took the view that communications specialists should learn how to train and trainers should learn how to use communication technologies. It helped us avoid the superior-inferior trap that we've seen too often hinder agricultural communications efforts in the US. We largely saw ourselves as a team trying to solve problems and get a job done and each contributed their ideas and energy according to capabilities not specializations.

Communication products were developed within the project that symbolized the team and the work being done. Two of the most important ones were the TRD logo and the monkey. The monkey became a symbol for problems and we passed them around, drew them, crocheted them, shot them, delegated them and righteously refused to take them when they weren't really our responsibility.

TRD staff expressed their ideas not just in training session designs, videotapes, slide presentations, but in masks, locally based games and models and highly ritualized workshop closing ceremonies with joking symbols and other highjinks.

Even though Agricultural Communications is really my professional area, I didn't produce a single communication product during my six years in-country. I coached, I praised, I critiqued, I joked and I shared my ideas and ideals.

Needless to say long lasting friendships were created across the power strata, across disciplines, across age groups and across cultural and national barriers.

It was this synergistic effect that led, I believe, to the project and people sustaining and slowly expanding as resources permitted after USAID withdrew the funding to complete the project, began to shutdown the USAID Mission and sent the two US project advisors home.

I departed Tanzania with chants and banners resounding - TRD will never die.

Well my correspondence - nearly all via that old reliable letter - tells me a year and one-half later that the program is alive, well, weathering the bumps and replanning, reformulating as new challenges present themselves.

Let me share a few excerpts from my recent mail that speak to the power of ideas, ideals and friendship and how quantity and quality of communications among people can make a development difference.

> Dear Mama Poley, Hi!
>
> It is a great pleasure to write you after a long silence. I'm working on myself so as to improve communicating with friends and especially writing letters.
>
> Habari za kwenu. I hope you are all fine and everyone is working hard. By now I suppose you have all picked-up with the American life, the food, weather, language and perceptions. Anyway, I know you still remember us and Tanzania.
>
> Up here my family is O.K. except that the inflationary problems are getting tough on us. What is probably

most unfortunate is the ultimate realization that there are no real answers to our inflation problems. I think these are problems which are totally part of an international life style. Hopefully our kids will have a new set of options to work with.

The rains have been plenty this year and we are expecting a bumper crop and higher production because of better adoption methods. People we work with are catching up with better agricultural practices, fertilizers and using improved seeds.

The Centre is on and we are still working hard to get the funds for training from the consolidated funds.

(News of other trainers and ongoing activities)

Janet, it is difficult sometimes to write everything in a letter. My biggest intention to write you is basically to say hello and trigger more communication between one another. i will write you and give you elaborate changes about what is going on in respect to TRD activities which you are the Founder. We highly respect you on what you did to us.

PRINCIPAL OF A TRD VILLAGE TRAINING CENTRE

Other excerpts:

Letter from TRD Project Coordinator ...

... Inspite of all the problems, I decided not to postpone the workshops and I used our trainers and management materials we have in the office. I decided we will make it, even if a few people don't remember that ... "a friend in need is a friend indeed."

We have a lot of requests for management courses from all over the country now. (He goes on to mention the regions and how he is getting excellent political support from top government levels).

Janet, in short I am encouraged that TRD will continue to grow and expand. These problems have been the shock of the year, but also it was a very good learning.

Letter from TRD Trainer ...

Recently it was decided to us the TRD team to facilitate management training after getting a problem

with the XXX people. It was a very challenging experience to our team. Everyone grabbed whatever he/she thought could be useful in the workshop. Thanks for the resources we got in the various files you used in the past workshops. The first two days were very hectic as we were behind schedule and we had a lot to do to get ourselves organized - but as we continued things became a bit easier. We had to work till midnight.

The only weapon which helped us was the Experiential Learning Skills which the participants liked very much. Although the Regional Director was not with us most of the time, his office gave us all the help we needed. (He was among senior managers trained by TRD).

I have come to realise that TRD training tools (techniques) is the only effective way to bring about desired change - and I'm sure that given all the support we need both materially and financially - the team you left behind can succeed to training without your help. So your stay in Tanzania was very fruitful. Hongera Sana. (congratulations)

Letter from Chief Communications Specialist/Trainer ...

... I have just finished re-training all the audio-visual specialists in the Ministry. We used the design we developed together in 1985.

Letter from Woman Principal of TRD Village Training Centre ...

... the Principal Secretary has asked me to begin representing her on women in development issues outside Tanzania. TRD will coordinate a SADACC Conference of women leaders in Arusha. I will then participate in another conference in Malawi.

So, my ACE and AUSUDIAP friends, for the most part I will leave you to make your own conclusions about communication variables important to developing dynamic, open systems that can work to foster change in agriculture and rural development.

For me these post project letters - of which I receive one or two a week (and try faithfully to answer) - say much about the social energy created in TRD.

They also represent very useful feedback to me about IDEALS that were generated: Did you note the number of times communication was mentioned?

Team or teamwork? Working for change and a better life for our kids? Friendship implies reciprocity? Working hard, persevere?

And some of the important IDEAS: Work to solve problems, the techniques and tools used for training and communication, importance of considering gender issues (use of he/she in letter) and delegation as a way to provide support.

And finally FRIENDSHIP is implicit in the tone of the letters, the sharing of ideas, troubles, triumphs and working together.

Obviously, there are a lot of other things to consider up front in creating positive development programs that build on what we know about communication such as being sure you have the political commitment, that adequate resources, human, physical, financial and technological will be available and that you build up indigenous leadership and energy. To the degree possible you start from a "moving with" position and strive to create mutual understanding, learning, trust and overlapping goals, beliefs and values and develop communication symbols and products that grow from the project environment and that are congruent ideas and ideals you are working toward.

Professional colleagues and friends mean a lot to me. I only regret that I can't personally partake of the energy I'm sure you're creating at this conference.

As we move ahead, often three steps forward and two and one-half back, we must remember that what we are engaged in is important, perhaps even more for our children than for us. Let's work harder, more creatively and communicate more often and cooperatively to solve intellectual and practical problems we all face in assisting agricultural development here in the US and around the world.

PEACE,

Janet Poley

Comments by W. E. Lavery, Chairman, BIFAD at the AUSUDIAP/ACE Meetings
Galilee, Rhode Island
June 3, 1987

It seems particularly appropriate that these meetings are planned to strengthen the understandings and collaboration between international agricultural program administrators and agricultural communications leaders of US universities. The institutions represented by your two groups coincide closely to what we of the BIFAD regard as the community of Title XII universities. The BIFAD met here yesterday to provide itself with the benefit of association with you, the key implementors of the important Title XII type programs.

As a president of a Title XII institution and as chairman of the BIFAD, I am especially pleased with the focus of your joint programs and to be included as a participant with you.

In my brief comments to you I would reaffirm four familiar assertions which are especially conspicuous in current domestic and international circumstances:

1. That we necessarily function in a highly interdependent global society is painfully but certainly not uniquely evident in the agricultural sector.
2. The third (and fourth) world and its development is highly critical to the self-interest of developed countries.
3. US universities are yet lagging far behind the need to "globalize" their institutional environments and programs of education, research and public service.
4. Title XII programs and participation in development assistance are highly relevant to the basic obligations and missions of US public universities.

These re-assertions are certainly not original nor surprising to you. But, it may be useful to remind ourselves that they are the essence and original basis for the Title XII legislation. While this legislation was labeled a "famine prevention act" it was clearly and pervasively described in terms of mutual national interests. What is very obvious now was quite visionary fifteen years ago as the Title XII concept was first emerging.

On global interdependence: If global interdependence is conspicuous and increasing, it is also clearly irreversible - the nostalgic desires of some of our leaders notwithstanding. It is illustrated by every major sector of our economy and lifestyles:

- Export/import deficit
- Food production increases - consumption plateaued
- Reliance on essential imports (not to mention optional imports)
- Impacts of floating exchange rates on currencies
- Impacts of national security expenditures
- Global communications, transportation, education, political, economic interactions
- A globalized capital market
- International debt loads and servicing problems of many countries

These are but some obvious elements of global interaction. They obviously affect the US but all are two-way and certainly cause our behavior to impact the rest of the world also. It seems that others, many less enlightened and sophisticated than we presume to be, understand this better than we do and deal with it more realistically. They keep close track of events and policies of the US. Transistor radios with ear plugs are universal, even in "illiterate", impoverished villages everywhere. Voice of America, Radio Free Europe, etc. are eagerly listened to. Radio Moscow (in English and other native languages) comes in the strongest in many target areas.

Our self-interest in third world development is great and increasing although probably less generally accepted. Our political, economic, military and social interdependencies with the developed countries and particularly the "free world" component are more conspicuous. And without much effort we can recognize major impacts on US agriculture by others such as Brazil, Argentina, Mexico and South Africa. But the LDCs represent a large and much greater potential for mutual benefit and US self-interest.

A most commonly perceived rationale for development assistance is humanitarian or moral obligation. I certainly would not suggest that this is not valid or even sufficient. But, with two thirds of the countries and population of the world in LDCs (per capita GNP less than $1000) it is not inappropriate to target foreign aid to serve our national interest. Indeed we do to a major degree. Roughly three quarters of all US foreign assistance goes to Israel (hardly an LDC), Egypt and Pakistan. Other heavier recipients are Morocco and now the Philippines. Conversely, Cuba, Angola, Libya, Ethiopia, etc. are not US aid recipients except via multi-national institutions.

Self-interest of the developed countries in third world development includes such major elements as:

- Dominant and increasing trade potential through economic development - largely agri base
- Mutually beneficial access to research materials and results (technology cannot be contained)
- Essential resources access (exclusively or largely in third world)
- National security and geo-political strategies
- Educational and cultural enhancement
- Political and economic stability

All of these are closely related to improving the lot of people everywhere. Two thirds are impoverished but have dreams: illiteracy is not stupidity; they know of the living standards and high technology of the developed world and the reliance of these on their participation. They will not be ignored without serious consequences to all. They have little to lose - we have much.

Implications for Universities

Having commented on the international nature of our domestic agriculture and the majority of the global population in the less developed countries, let me further relate these and the self-interest of the US to the mission

of a public university. Clearly our involvement should now be much more than international studies for a few; student and faculty exchanges involving even fewer; study abroad; and international development. These are important but they tend to focus on a separate and nominal segment of campus population and activity.

Most all of what agricultural faculties do in teaching, research and extension should be cast in an international setting relevant to the circumstances of the domestic clientele they serve. This becomes more important as we strive to serve the present and future needs of an outwardly oriented and inwardly dependent US food system. The professionals we now develop will function professionally and personally in a global arena. It is a serious default of responsibility to presume to educate them for that arena with provincial teachings by provincial teachers. As our agriculture goes international, are our faculties keeping up? In course content from basic soils to macro-market economics and all courses in between?

In research we may come closest. But, even there do we recognize the global source of input or the folly of assuming technical output is geographically containable.

In extension, I suspect that many constituents may be ahead of specialists in recognizing the international aspects of their operations. And those that do not, need to be helped to develop this understanding. Global technology, monetary policy, trade policy, political actions, military strategies, etc. of other parts of the world all shape the rules of the game in which they compete. To function in this new agricultural setting will increasingly require internationally conversant scientists, teachers, agribusiness people and agricultural leaders. They are now students on our campuses.

A globally oriented education environment is not likely to be stimulated by a provincial faculty. Nor will it be adequately implanted by a few "peculiar" internationally inspired and experienced individuals in a separate international unit. The international dimension must be integral and pervasive in all units.

One way to develop this attitude and capability is through professional involvement in development assistance projects and other forms of international collaboration. Such program involvement has multiple benefits for faculty involved and in turn for domestic students, projects and clientele needs. It also communicates administrative endorsement and institutional commitment to meeting the needs of US agriculture today and particularly tomorrow.

Title XII and its several related programming mechanisms can play an important role and at the same time serve our national self-interest commitment to development assistance. Most of us have made too little use of such involvements to impact our campus environment. We need to incorporate more usage of international students, returning faculty, visiting foreign nationals, domestic student exposure, short-term participation, materials preparation, etc.

These multiple and mutual benefits of Title XII programs participation were integral to the original concept of the legislation. In the period of ten years of experience, this concept has been narrowed and distorted by (1) the somewhat understandable single purpose orientation of the AID as it funds, guides and evaluates development assistance projects and (2) by universities' failure to integrate such involvements into the fabric of their campus programs.

On the other hand, US agricultural universities are now much more prepared for and committed to participation in Title XII than ten years ago. Many have become more involved and more are anxious to. It is frustrating that the Title XII community of US universities has a growing interest and capacity for participation at a time when funding is tight, competition is intensifying and the private sector is experiencing administrative favor for involvement. Projects will be fewer and more extensive and complex. But there will be opportunities. Good proposals will be key to effectively competing. Performance is critical in the long run status of universities, both individually and collectively. Universities have a comparative advantage in programs oriented to academic training, research, institution building and technology transfer. These are all areas of relative emphasis by AID.

Additionally, it should be remembered that AID is not the only source of funding and involvement. World Bank, regional development banks, FAO, UNDP, Peace Corps, Partners of the Americas, private foundations are other sources of support and outlets for involvement. Private firm consulting is yet another mechanism for faculty involvement as consistent with institutional policy.

Title XII and participation in development assistance initiatives has a primary objective of addressing food and agricultural constraints of LDCs. But this is totally compatible with national and domestic missions of our institutions. Such participation can broaden the perspective, capabilities and effectiveness of the institution. Stature institutions of the future will have that breadth.

But let us resist the tendency to equate technical assistance projects involvement with internationalization of a university. Interfacing with the other developed country institutions is also important as we strive to globalize our teaching, research and outreach functions consistent with the domestic agriculture we serve.

For the future well-being of US agriculture, institutions such as yours are mandated to broaden and deepen the international aspects of your missions of public service. You as program development leaders and communications professionals play especially important roles in the process. I commend you for joining forces in this effort. I thank you for the opportunity to make these comments.

STATE OF THE ASSOCIATION
D. R. Isleib
2 June 1987

I. At this time of the twenty-third annual meeting of AUSUDIAP, the Association has attained majority, and is obviously alive and well. This is not simply a matter of age, but of achievement. Among its accomplishments are included:

1. An array of studies and reports derived from interests of the membership and reflecting their institutions, which address organizational and operational requirements of international agricultural programs in U.S. universities and colleges.

2. Extensive study and shared experience of members in dealing with the opportunities and problems of involvement in donor-financed development assistance projects.

3. Five AUSUDIAP publications have been completed, and provide special insight and resources for programming international activities.

4. Annual meetings have created opportunities for presentation of thoughtful papers on an array of timely, relevant subjects. For those who do not have a long history of AUSUDIAP participation, I especially recommend review of Proceedings where these presentations are recorded. While some of them were especially relevant to the time they were presented; others have a scholarly quality which adds to the body of knowledge on the process of development itself, or speak to important concepts in development assistance.

5. Importantly, the AUSUDIAP membership has been active in a broad array of national and international committees, agencies, and activities where provisions for international development have been planned or conducted. The AUSUDIAP common denominator has insured that both the experience and resources of our universities and colleges have been represented in these groups. Notable examples include:

   a. Member activity in the genesis of Title XII, including participation in BIFAD, the BIFAD support committees (JRC, JCAD, and now JCARD), and special ad hoc committees of BIFAD.

   b. Organizational and individual participation in NASULGC international activities. It is fair to say that the ICOP and regional groupings of directors of international agricultural programs within NASULGC have grown from the direct outcome of AUSUDIAP efforts.

AUSUDIAP members have also nurtured the NASULGC Division of International Affairs, and I expect that they will participate in leadership of that division.

c. AUSUDIAP members are prominent in ISEC, which I believe is increasing its effective influence on U.S. international development programs.

6. Through institutional involvement in development assistance projects, members and their institutions have accumulated years of experience in agricultural development -- experience which in terms of continuity is longer than that of many other national and international agencies or individuals. Examples include:

   a. Seventeen years of University of Minnesota assistance to Morocco.

   b. Thirty-two years of North Carolina State University assistance to Peru.

   c. Twenty-five years of Michigan State University assistance to Taiwan.

   These are examples of a very extensive array of firm and effective institutional and personal linkages forged by members of AUSUDIAP.

7. In additional to these broad and substantive roles and achievements of the Association and its members, much time and energy has been spent on "nuts and bolts" issues, such as:

   a. The federal/state partnership in development assistance.

   b. Title XII and its implementation, especially university/AID contracting.

   c. Development assistance project management.

   d. Design and conduct of training relevant to the needs of LDC students and the terms of reference of sponsoring agencies.

Recently, a major initiative in public information has been undertaken, with special emphasis on the benefits to the U.S. economy, including U.S. agriculture. AUSUDIAP and its members have been leaders in this area, and this year's program will add significantly to that effort.

AUSUDIAP has sustained its programs with participation of persons from large and small universities, HBCUs, landgrant, and AASCU institutions, and many other agencies. While there are no institutional members of AUSUDIAP, fifty or more universities and organizations are represented regularly at

our annual meetings. Despite occasional strains as the institutional interests of members' employers have diverged, AUSUDIAP has not been Balkanized by groups of members who could have sought special status in its affairs. All in all, the Association has a remarkable history of achievement not limited to those just mentioned.

II. Where do we stand?

Our membership has been relatively stable for several years, with neither much growth nor decline. Without access to the necessary statistics, I judge AUSUDIAP to be a good illustration of the "graying of the faculty" phenomenon common to many of our institutions.

We have, of necessity, focused much of our energy on the university/AID relationship. To some degree, this has precluded consideration of changing needs in development assistance.

We have encouraged our members to lobby Congress for support of development assistance with neither an institutional francise, nor the quid pro quo of assured participation in the U.S. program.

We are competing with many organizations for the opportunities in development which once we believed to be the special province of our institutions, such as training, institution-building, research, and technology adoption (extension).

We are seeking and developing partnerships and other contractual linkages with a broad array of individuals and agencies for the purpose of reinforcing our capabilities and prospects for contract awards.

We are questioning the objectives and processes which underlie some of the opportunities for our institutions to participate in development assistance, particularly with USAID.

We recognize that our membership has not grown, and is overwhelmingly derived from university faculties. We would like to know how non-university leaders in international development perceive our roles in this process.

We recognize that AUSUDIAP has not deliberately undertaken or stimulated scholarly study of development issues or policies, or of institutional capabilities to address them.

Many of us have had little to do with the curriculum of our own institutions, to insure that it provides basic understanding to students of world food and agriculture issues, in the context of the global economy.

Despite considerable effort, we have not had much broad impact on congressional and state legislative commitment to international development. We suspect that our efforts to inform congressional and legislative leaders of the importance of international development have not been very successful.

We have not developed concepts for regional development assistance mechanisms, for successful technology transfer (is this a politically necessary euphemism for extension?), for increased involvement of non-degree LDC institutions in development processes, or for designing training programs which both meet the need for academic degrees and prepare participants for future roles in management and leadership of national enterprises and agencies.

We are frustrated by our certainty that institutions and nations which are not clients for U.S. bilateral assistance have tremendously important roles in development, both to continue this process at home and to assist other developing nations. Our frustration arises from the lack of modest resources which would enable us to capitalize on these opportunities.

We know that participation in development assistance projects - indeed, in Title XII -- does not constitute an international component of our institutional programs which satisfies the needs of our students and faculty. It may add significantly to the competence of faculty and the flavor of curriculum, but it is only one part of a much broader picture.

I count the creation of ICOP and the international division of NASULGC as particularly helpful to AUSUDIAP, in that we may now be relieved of some burdens we were ill-suited to carry, such as:

Institutional representation
A primary role in budget lobbying in Congress.

I view the State of the Association to consist of a combination of pride in accomplishments and expectations to identify and meet new challenges. I sense that, like many young adults, AUSUDIAP is not fully sure of what it wants to be in the future.

I believe we can and will build on the achievements of the past, but not be captives of them. To this end, a committee which has studied alternatives for the future for AUSUDIAP will report to you this afternoon. You have already seen much of the committee's work, and we will ask you to give clear indication of the future course which you believe AUSUDIAP should pursue. The Futures Committee and Executive Committee are eager to have your guidance.

I will finish by thanking all of you for the privilege of leading AUSUDIAP for this year. Of course the burden for real progress has rested on the Executive Committee - President-Elect Gene Adams, Secretary-Treasurer Tom McCowan, and the directors Tom Westing, Vi Cook, Howard Massey and Handy Williamson.

The committees are where the real work of AUSUDIAP is accomplished, as well as by our members who serve on boards and committees ourside AUSUDIAP. You will hear from many of them today and tomorrow.

Special acknowledgement and thanks must be extended to the 1987 Program Committee and host institution. Their effective planning and presentation of the 1987 annual meeting program has been an essential ingredient of this year's Association activity.

Thus, the State of the Association reflects the interest and support of every member and friend. In the final analysis, you must be the judge of our vitality.

Thank you all very much.

Eugene Adams receives the AUSUDIAP gavel from Don Isleib.

1986 - 1987 Executive Committee of AUSUDIAP

STRUCTURING INTERNATIONAL AGRICULTURE PROGRAMS TO PROMOTE PUBLICATION AND PROJECT DOCUMENTATION

by

James L. Collom *

THE PUBLICATION DILEMMA

For many years we have recognized that "Publish or Perish," which defines the dilemma faced by many university faculty, also creates an important issue for staffing overseas projects. Development assistance projects are categorized as providing inadequate opportunities to produce the type of publications required to gain tenure or achieve rapid promotion in the university environment. As administrators of these projects, we have been unwilling to send young staff, or those at critical promotion stages, on assignment overseas. According to Perez and Rogers (1984), faculty themselves consider an overseas assignment quite disadvantageous in terms of its effect on tenure and promotion potential, although it was not considered among the most significant factors in determining whether to take such an assignment.

Whether by its effects on program administrators or on faculty decisions, the issue has excluded significant numbers of university faculty from participation in overseas projects at key times during their career. Further, this issue generates an overall negative image of project assignments for many people in the university community.

How we address this is of some importance. There are several options. One that has been advocated in recent years is to suggest that since projects don't or can't produce publications, they should be staffed by professionals for whom publications are not critical. This can lead to excessive dependence on temporary staff or senior staff beyond promotion requirements, and dependence on a cadre of staff excluded from promotion and tenure consideration. The other option, critical to continued involvement of regular faculty, is to recognize the concern and attempt to structure projects so as to enhance the publication options. If we are to follow the latter option and attempt to resolve this problem, we must also consider several important issues related to the role of publications in international programs.

---

* Deputy Executive Director
Consortium for International Development
Tucson, Arizona

THE RATIONALE FOR EXPANDING PUBLICATION EFFORTS

A principal issue which warrants consideration is whether publication efforts associated with development projects have been minimal because we have not perceived these efforts as warranting the same type of intellectual treatment as other activities in which university faculty are engaged.

Recent reviews of the history of development approaches include references to a "blueprint approach," described by Brinkerhoff (1986) as one in which outside experts can detail in advance, using standard approaches, what would be done in a project and how it would be carried out. For many practitioners and administrators, development assistance in the "blueprint approach" consisted simply of applying existing expertise and knowledge in a foreign environment. It may well be that most university faculty, perceiving development assistance activities as a specialized form of either teaching or service, applying what was already known, have not considered such activities as worthy of the kind of intellectual effort reserved for producing publishable output from research efforts.

Within the past 5 years, there has been considerable movement towards reinterpretation of development assistance as a "learning process" in which, as described by White (1984), "projects become experiments that in turn can be learned from to develop broader programs." Brinkerhoff describes how a learning process approach can derive development solutions from an iterative process of problem identification, strategy formulation, action, analysis of experience and feedback. These descriptions imply that we should perhaps be far more aggressive in defining the activity of project staff as efforts from which learning should be derived, with information organized and analyzed, and with the lessons learned from such activity disseminated through publications for the benefit of others.

One additional issue relates to university responsibility to donor agencies and particularly to AID within the framework of Title XII. Many people have characterized AID as an organization without an institutional memory. AID has, however, made significant recent improvements in its ability to catalog, store and access its internal documentation. Universities, who have often suggested that they can and do serve as the institutional memory for AID, have not produced the quality and quantity of publications from development assistance involvement that similar levels of activity would have produced in most other areas of university responsibility. Full application of universities' ability to uncover new knowledge, and to organize and transmit it to others through publications and related means, would result in a much richer documentation of our experiences in development than we now have in hand. Universities have clearly complied with the minimal reporting requirements of their development projects, although frequently without much enthusiasm or initiative. We have seldom gone beyond those requirements to do additional reporting, or to accumulate experiences over time and across projects. Generally we have not gone out of our way to make sure that the experiences obtained were organized to constitute a truly useful institutional memory available to other groups or even to our own staff.

Thus, it is entirely appropriate that we consider ways of expanding and improving upon our production of publications in association with development projects overseas. There are several important reasons for doing so:

- the output of publications by our staff is important to their career advancement. Further, perceived lack of opportunity to publish inhibits faculty involvement in development projects;
- approaching our development projects as learning experiences worthy of careful observation and analysis, implies an obligation to expand publication of the results of lessons learned;
- to effectively discharge our responsibility to provide an institutional memory of development projects, we need a more systematic handling of reporting on the efforts we are making.

Recognizing the need and rationale for expanding our publications effort is a first step. Next we must consider how to modify and adjust programs to achieve this goal.

STRUCTURING INTERNATIONAL PROGRAMS TO PROMOTE PUBLICATION

Consideration of how to structure international agriculture programs to promote publication may be more productive if we divide our attention between two different levels.

Promoting Publication at the Administrative Level

At the level of administration of international programs on campus, there are a set of problems, responsibilities and opportunities that warrant our attention. It is at this level that primary responsibility exists for the overall review and analysis of our experiences, synthesis of lessons learned on principal approaches and publication of the results. Several years ago a major effort was applied at this level to the concept of institution building. A valuable set of studies was conducted and a useful body of literature was created which has developed additionally since that time. We have not similarly applied ourselves to other topics since that time, although in the past several years a growing publication effort has appeared on the topic of the U.S. benefits of economic assistance and economic growth in developing countries. There are many other important topics on which our experience has not resulted in a strong set of publications, but which merit much more than the existing sporadic document or report. Some of those include; approaches to extension and development of national extension programs, (which may be resolved by Interpaks efforts), development of national research systems, approaches to development of livestock production in non-confinement systems, approaches to incorporating natural resource conservation efforts in development projects, implementation of Title XII etc. It is recognized that some efforts are underway on these areas and valuable publications have been produced in each of these areas. It does not appear, however, that we have come close to achieving our potential contribution in any of these areas.

There are several problems or constraints which work to inhibit our performance in this area. Most of us who have responsibility for administration of international programs do not have the stimulus of the "publish or perish" element spurring us on. Further, a great deal of our administrative time commitment and "literary talent" is consumed by proposal writing. Most international programs offices are inadequately staffed, particularly at the level of staff who could be expected to produce the kind of publication and documentation required. The reliance on project generated soft money is high, and the position support provided by projects is consumed in the nuts and bolts of keeping projects running. There is simply not enough commitment to the professionally and intellectually demanding task of studying the what and how of development assistance and reporting on what we are learning.

The question is, can we modify and adapt our structure and our approaches to the administration of international programs to eliminate some of these constraints? Several reasonable options include:

- allocation of a portion of our administrators' time to analysis of experience and publications using a combination of university and program support grant or strengthening grant funds;
- some internationally experienced departmental staff should have a percentage of their time allocated to international programs, just as they are currently divided among teaching, research or extension, with specific assignments of investing intellectual effort in developing publications on key topics out of their experience;
- administrators of international programs should be allocated periodic "sabbatic leaves," perhaps of shorter duration than for academic staff, or part time, with time committed to analysis and publication. Such a leave might not even require leaving campus if freedom from administrative time demands are assured.

In addition to these kinds of efforts, it may be important to generate clearer signals of demand for this kind of output from administrative staff. This could occur through:

- structuring AUSUDIAP or other programs to generate significant publishable papers on key topics. In this fashion AUSUDIAP might generate or hold a "symposium" type session on a particular issue;
- as a group we can organize to negotiate with AID or other donors for funding which would allow us to invest in analysis and publication on a particular issue. This was a key factor in generating the initial body of literature on institution building;
- create additional, regular opportunities to meet, discuss and publish. This approach, used in the farming systems symposia, may produce a valuable body of literature over time.

The major requirement to achieve real growth in our output of publications derived from development assistance projects, would seem to be recognition of the need, followed by individual campus efforts to commit specific time to this responsibility. This, then, can be greatly enhanced by cooperative efforts which join us together to permit pooling, sharing and comparing experiences.

Promoting Publication at the Project Level

At the level of the individual development project we face different challenges and opportunities. There are, at the project level, important needs. As described previously, we have not systematically approached our development assistance projects as learning experiences. Thus, we have not examined, noted observations, analyzed and published results describing these efforts. Even required reports are often treated as bureaucratic hurdles, prepared perfunctorily with emphasis on satisfying administrative requirements. Technical information and technologies are not routinely and easily shared across projects. Methodology issues, related to how development assistance is conducted, relating successes and failures with various approaches are seldom dealt with in an accessible literature. There is an additional, important consequence of the fact that we don't consider development assistance as a learning experience. That is, we do not generally have a sense of the existence of a body of literature covering development assistance. Thus, while staff assigned to projects may review technical literature for new crops, or read up on cultural aspects of a new country, they frequently do not give adequate attention to reviewing literature related to the issues of development assistance per se. Lacking a sense of such literature, and not having explored what exists, our development assistance staff are not predisposed to contribute further to that literature.

The following specific constraints may inhibit publication efforts:

- staff may be insecure about the process of analysis and publication on issues of development assistance;
- staff may not be sure what is publishable or in what form it would be useful. The nature of the publication may be different from those to which they are most accustomed;
- the where and how to publish something may not be obvious;
- the single tour of 2 years on a particular project may not be an adequate time period for observation, learning and publication. Results may accumulate in a particular project activity over a period of several tours by different people;
- relationships with and responsibilities to host country institutions and individuals may create restrictions or particular challenges to overcome in developing publications;
- staff time to devote to the learning process and publication is often lacking. This is normally not allocated as part of project staff members responsibilities. Neither projects nor universities allocate time to staff who have returned from overseas to permit development of publications covering project activities.

Overcoming these obstacles will require specific effort by administrators of international programs, by staff involved in projects, and perhaps some change on the part of donor project managers.

Useful strategies or approaches may include:

- modify our perceptions of development assistance efforts to incorporate, at least to a certain extent, a learning approach;
- expand orientation of staff appointed to overseas projects to include exposure to the existing literature on development assistance;
- provide specific counseling for staff, initially and at follow up points, regarding identification of specific areas related to their overseas assignment which warrant a "lessons learned" analysis and which offer useful publication alternatives. Field and campus administrators should have an approach formulated and should be prepared to help staff develop specific strategies to enhance publication output. This includes identification of outlets;
- project managers/administrators should maintain a multiple tour perspective, recognizing the option of linking the efforts of several people over time, or several people at the same time, to develop results which warrant shared publication;
- adapt reporting formats and requirements to stimulate more effective use of project documentation and to attribute to it higher value as a publication. This includes:

  + establish a project publication series, define its audience and distribution pattern, and prepare each project report to fit that format.

  + wherever possible, define the body of a report as a technical publication, orient it to that end, and relegate administrative requirements and details to an appendix (the End of Project Report on AID contract AFR-C-1472 by Purdue University is one example).

- build specific publication expectations into projects during project design and periodic workplan development efforts (see Esslinger, 1985). Most projects relate to host country organizations which have or need publication efforts. Contributing to these efforts with host country counterparts should be a part of every single project in which university staff are likely to be involved. Once in-country needs are addressed, it is more likely that external publication efforts can also be built into a project design.
- budget for trips to conferences and workshops for the project staff and counterparts. Joint participation tends to be more acceptable and contributes more to overall project objectives. These should reflect specific expectations that project staff will prepare and submit presentations/publications. The Farming Systems Symposium has provided good opportunities for this approach in recent years;
- when negotiating on project workplans and budgets, draw upon the value to the project and to the sponsor of publications which contribute "lessons learned" and which expand our institutional memory. While sponsors have a vested interest in the long run of ensuring that "publish or perish" requirements of universities are met, their particular orientation will result in low priority being accorded that objective;

- dedicate university, program support grant, and project funds to create time and publication opportunities to staff who have returned from overseas assignments. Preparation for this expected effort should begin at or before taking up the overseas post.

All of the above describes a set of problems and approaches to resolving them that can be dealt with to a greater or lessor degree by everyone responsible for administering international agriculture programs.

Substantial progress towards the goal of enhanced project documentation and publication can be achieved, if we:

- recognize that this is an important goal;
- develop in each of our institutions and for each project, an approach and a strategy to encourage/facilitate publication;
- work with AID missions and other donors to enhance understanding of their needs and ours for an improved communication/publication process, stressing the values which accrue to each of us;
- guide and counsel projects and individual staff to help apply the publication strategies and approaches appropriate to their situation;
- develop, as international program administrators, our own individual and collective efforts and contributions to the publications process.

LITERATURE CITED

Brinkerhoff, Derick, 1986. Evolution of current perspectives on institutional development--An organizational focus. In Brinkerhoff, D. and J.C. Garcia-Zamor, Politics, Projects and People: Institutional Development in Haiti. Praeger Pub. N.Y.

Esslinger, Donald L., 1985. Building information dissemination into grants and contracts. In Procedings of the conference on International Agricultural Programs and Agricultural Communications. AUSUDIAP and ACE.

Perez, Robert and L. Rogers, 1984. Factors influencing Pacific Northwest College of Agriculture faculty members willingness to accept international assignments, Washington State University, International Program Development Office, Occ. Paper #1. Pullman, Washington.

Purdue University, 1986. Cereal technology development--West African semi-arid tropics: A farming systems perspective. End of Project Report, AID contract AFR-C-1472. International Programs in Agriculture, Purdue University, LaFayette, Indiana.

White, Louise, 1984. Lessons in development project management. Working Paper. Development Project Management Center, OICD, USDA and International Development Management Center, University of Maryland, College Park, Maryland.

PUBLISHING OPPORTUNITIES IN AGRICULTURE FOR INTERNATIONAL DEVELOPMENT PROFESSIONS

Marilyn Guin
Oregon State University

In publishing, as in all forms of communication, one of the most important considerations is the audience. Professionals in the international agriculture disciplines have four potential audiences to reach: their academic peers in the university, their colleagues within the discipline, persons working with the agencies, associations and foundations which support international activities, and the personnel working in the developing countries. All of these audiences are not reached with the same type of publication and so the primary selection of an appropriate forum for publication must be determined by considering the target audience.

For university faculty early in their academic careers, appointment to an overseas project represents the type of unique opportunity which cannot be taken lightly, both because of the challenge of the assignment itself, and the requirement within the academic community to produce scholarly publications. The refereed journals are the core of the conventional literature in most disciplines and to serve the information needs of the researchers and scholars, material is written, reviewed, published, indexed and abstracted, and collected in libraries to control bibliographically the body of knowledge. In the academic arena, professionals are expected to contribute to this body of knowledge and the quality and quantity of these contributions to journals establish the faculty members' competence as scholars. The scholarly publication may be rewarded in the academic context with grants or supplemental funding, prestige and recognition but these are secondary to survival in the university promotion and tenure system which simply stated is "publish or perish". This is a time honored tradition which influences careers as well as the nature of scholarly publishing. A discussion of the dilemma in the context of the international agricultural programs has been presented in these proceedings (Collom, 1987).

The refereed journal system of publication serves the needs of university faculty members in a specific context, but to those seeking to communicate information, as well as scientific and technological advances to colleagues in developing nations, publication in the journal literature may be ineffectual. The refereed journal literature presents some specific problems for communication with colleagues in the less developed countries, but the problems are not limited to technological or cross cultural information exchange. Typically the editors of refereed journals accept papers which are of general interest, ie. not case specific, geographically limited, or concerned with solution of a particular problem. With some exceptions, the information needs of developing countries is at a more basic level than that required by developed countries, and therefore the methods and the technology described in the journal literature are not within the physical facilities available to the worker in the third world, nor appropriate to the problem. Language may be a barrier to communication because most journals are published in English. For example, in agriculture, Commonwealth Agriculture Bureaux reports 71% of the original

language used in journals recorded in 1983 were in English while AGRIS reported 60% for the same period. (Deselaers, 1985) The distribution of journal literature is difficult for less developed nations in terms of the physical receipt of the materials. Many of the universities in the third world were established away from metropolitan centers to create an academic atmosphere, but this has increased the problems of communication. (Agumanu, 1986) There are also problems in terms of the costs required to maintain the subscriptions. Libraries everywhere are faced with inflation of journal subscriptions, but third world users are also burdened with the cost of airmail rates for prompt delivery of the materials.

A problem which has developed as a result of the placement of research results is the drain of quality papers from the journal literature of the third world. For these journals to grow, increase in prestige, and become significant publications for national scientists, they must include quality papers, especially if the research was conducted with local support and involvement. (Chadha, 1984) Publication of project results in the conventional western journal literature may not be equitable for the local scientist or researcher and may make this information less available to the developing country being assisted. (Gupta, 1980)

The international exchange of scientific information occurs in much the same way as in this country, including the most basic medium, person-to-person exchange. This encompasses interaction at symposia and meetings, cooperative projects, and exchange of personnel. These opportunities for information exchange are limited by expense, the number of people who can participate, and they are time consuming. Publication bridges the temporal and geographic gap and some of the cultural variations, but does not ensure that there will be an international transfer of scientific findings. (Burchinal, 1979) One of the most timely and relevant practices can be found in the invisible college, in which workers build personal libraries of reprints and reports from colleagues and exchange information on a systematic basis.

The placement of the information in the literature which has been shown to be the most relevant to the researchers and scholars in the developing world often falls outside of the traditional refereed journal literature. We have all been assailed by the statistics of the information explosion and the consequences of the massive quantity of literature to be indexed, abstracted, read and assimilated as the total body of scientific knowledge. Even if one agrees with Leatherdale (1979), who states that the problem is more of a publication explosion than an information explosion, the glut of material has been complicated by the use of computers for bibliographic control. It is now possible to identify more sources than one can reasonably obtain in an information query. Much of this information is found to be non-conventional literature. When relevancy, defined as the need to know case-specific information, is the primary goal in publication, the problem of non-conventional literature must be considered as a publishing opportunity. This is true especially in the applied sciences but it is certainly not limited to dissemination of information to the less developed nation.

In the broadest sense, unconventional literature may be defined as material "which would present a non-special library, as opposed to a special library

with more than average difficulty in its acquisition due to its distribution not being through conventional commercial channels" (Posnett, 1984). In the academic sense, it may be accepted to mean other than conventional literature, specifically not books or journals. Either of these definitions encompasses a vast amount of material, which could take the form of report literature (progress, reports, annual reports, summary or special reports), extension publications, working papers, or newsletters. Non-conventional literature is also called grey or fugitive literature and may be extended to include foreign material especially non-English. The appreciation of non-conventional literature and its importance has increased recently and this recognition has been facilitated by the growth of the international databases, and the international agricultural research centers. The Consultative Group on International Agricultural Research was organized to bring together countries, public and private institutions, international and regional organizations and representatives from developing countries in support of a network of international agricultural centers and programs. (Hwang, 1980) The centers have actively engaged in an information service which is inwardly and outwardly directed. Materials have been provided to their researchers, but they have also engaged in the creation of greater bibliographic control by identifying local and regional publications of merit; by funding projects, assisting in cooperative ventures and by producing reports and current awareness publications. (Harris, 1985) Identification of non-conventional publications and increased availability of the literature are essential to dissemination of the information. The incorporation of heretofore unavailable or inaccessible information into the databases increases the availability of the relevant information which may offer specific implications to a project or planned research. The International Federation of Library Associations has initiated a program Universal Availability of Publications which is intended to make copies or original documents available to users everywhere. Although this program has been accepted in concept, the implementation has proved very difficult especially for the third world librarians who have little control over the factors that must be overcome, including distribution, currency, political problems, etc. (Rodriguez, 1978)

Researchers in agriculture are fortunate to be served by three comprehensive databases: AGRIS, sponsored by Food and Agriculture Organization of the United Nations, CABI, published as ?? separate abstract services by the Commonwealth Agricultural Bureaux, and AGRICOLA, from the U.S. National Agriculture Library. The comparative information science studies conducted on these databases indicate there is extensive duplication among them but a single database will probably be inadequate for an extensive literature search. (Mann, 1985) These databases include the conventional literature and much of the non-conventional literature which permits members of any of the publication audiences to select appropriate material using these tools. Although these databases contain immense amounts of information and include more of the regional and local documents, they were designed to meet the needs of the industrialized nations and will not replace a local database for specific queries. (Davies, 1985)

One of the major technological advances of this decade in information science is the CD-ROM, which means compact disc read only memory. The

compact disc allows large volumes of information, like a database, to be stored by users and used directly with a microcomputer. Although the standards are not yet fully developed, and much of the searching software is not completely refined, a number of the major databases are commercially availab. including AGRICOLA. Commonwealth Agriculture Bureaux has been testing a CD-ROM version worldwide. The technology has great potential for developing countries where telecommunications may be expensive or non-existent, because the database service may be purchased for use.

This discussion has summarized some of the aspects of publication in the international field, and illustrated the need for a university faculty member to distinguish which literature is rewarding for an academic career. For comprehensive bibliographies in agriculture which include all types of publications see Jensen, 1986 and Lilley, 1981. To assist with this selection a sample bibliography has been prepared to present information about specific journals which might help an international worker to place research results. The bibliography lists the scope or aim of the journal, brief instructions for authors and some bibliographic information to help identify the title. For the purpose of compiling the sample bibliography, included as appendix 1, certain criteria were used: the journal must be refereed, the primary language of the journal must be English, it must be issued at least twice per year, it must be indexed by the major databases, and it must be reasonably available. This sample covers horticulture, but a more comprehensive bibliography will be available later. Your comments and suggestions to improve the bibliography would be very welcome.

Literature cited:

Agumanu, J.N. 1986. "Serials in third world academic and research libraries." Serial librarian. 11(1):55-61.

Burchinal, L.G. 1977. "International transfer of scientific and technical information." Serials librarian. 1(4):353-364.

Chadha, Y.R. 1984. "Scholarly science publishing in developing countries with particular reference to India--an overview." Journal of scientific and industrial research. 43:190-192.

Collom, J.L. (in press) "Structuring international agriculture programs to promote publication and project documentation." Proceedings of the Annual AUSUDIAP Conference. held 2-4 June 1987 Galilee Rhode Island. pp1-7.

Davies, D.M. 1985. "Appropriate information technology." International library review. 17:247-258.

De Datta, S.K.and R.L. Cowell. 1980 "The communication of scientific information in international agricultural development." In: Agricultural information to hasten development. Proceedings of the VIth World Congress of the International Association of Agricultural Librarians and Documentalists. held 3-7 March 1980 Manila Philippines. Agricultural Libraries Association of the Philippines. Los Banos, Philippines. pp3-11.

Deselaers, N. 1985. "Necessities and possibilities for a closer cooperation between agricultural and secondary information services. In: Information for food: Proceedings of the VIIth World Congress of the International Association of Agricultural Librarians and Documentalists. held June 2-6,1985 Ottawa, Canada. pp1-12.

Gupta, B.M. and S.S. Nathau. 1980. "Scientific and technical periodicals in the developing countries." Herald of library science. 19(1-2):7-17.

Harris, S.C. 1985. "The integration of the information and communication functions and the marketing of he resulting products." In: Information for food: Proceedings of the VIIth World Congress of the International Association of Agricultural Librarians and Documentalists. held June 2-6,1985 Ottawa, Canada. pp1

Hwang, T.H., C. Podesta, S. Dutta, S. Lawani and L.M. Vergara. 1980. "Information activities of the International Agricultural Research Centers." In: Agricultural information to hasten development. Proceedings of the VIth World Congress of the International Association of Agricultural Librarians and Documentalists. held 3-7 March 1980 Manila Philippines. Agricultural Libraries Association of the Philippines. Los Banos, Philippines. pp. 123-125.

Jensen, R.D., C. Lamb and N.M. Smith. 1986. Agriculture and animal science journals and serials; an analytical guide. Westport, Connecticut. Greenwood Press. 153pp.

Leatherdale, D. 1979. "International frontiers in agricultural information service." IN: International Agricultural Librarianship: Proceedings of an International Symposium held 4 November 1977 at the National Agriculture Library. Edited by: A. Fusonic and L. Moran. Westport, Connecticut: Greenwood Press. pp.93-104.

Lilley, G.P. 1981. Information sources in agriculture and food science. London. Butterworths. 603pp.

Mann, E.J. 1985. "Past, present and future developments in the transfer and dissemination of agricultural information." In: Information for food: Proceedings of the VIIth World Congress of the International Association of Agricultural Librarians and Documentalists. held June 2-6,1985 Ottawa, Canada. pp.1-11.

Posnett, N.W. 1984. "Problems of non-conventional literature accessibility." IN: Education and training for agricultural library and information work: Proceedings of the International Conference. held 7-12 March 1983, Nairobi, Kenya. Edited by: H.A. Liyai, B.N. Ayaka and R. Thomas. Kenya Library Association Nairobi, Kenya. pp.330-342.

Rodriguez, A. "Universal availability of publications in developing countries." Interlending review. 6(3):90-92.

Appendix:

Title: subtitle or former title

ISSN: International Standard Serial Number

Frequency: sa 2 issues per year
ta 3 issues per year
q 4 issues per year
bm 6 issues per year
m 12 issues per year

Size of the mailing: circulation of the journal

Indexed in: ba Biological Abstracts
bi Biological and Agricultural Index
ca Chemical Abstracts
cc Current Contents
sc Science Citation Index
ss Social Science Citation Index
bib Bibliography of Agriculture AGRICOLA
cab Commonwealth Agriculture Bureaux

Abstracts

American potato journal
ISSN: 003-0589 Frequency: m 1987 volume number: 64
Subscription price: $25.00(35 Size of mailing: 1,700
Publisher: Potato Association of America

SCOPE OF PUBLICATION: Contains research papers concerning the tuber-bearing members of the potato family. At least one of the authors of any manuscript must be a member in good standing of the Potato Association of America, but an application for membership may be submitted with any manuscript.

Instructions for authors: Current instructions to authors are published in the American Potato Journal (64:143-150) and are also available from the editor upon request. Dr. Geddes W. Simpson, Editor-in-Chief, 1 Winslow Hall, University of Maine, Orono, ME USA, 04469-0163. A fourth copy of the abstract is required for translation into Spanish at CIT in Lima, Peru.

Indexed in: ba ca sc

Canadian journal of plant science
ISSN: 0008-4220 Frequency: q 1987 volume number: 67
Subscription price: $42.10 Size of mailing: 1,500
Publisher: Agricultural Institute of Canada

SCOPE OF PUBLICATION: This is the official journal of the Canadian Society of Agronomy, the Canadian Society for Horticultural Science and

the Canadian Pest Management Society. It contains original research papers with new information of national or international interest and application, concerning an aspect of plant science.

Instructions for authors: Notice to Authors is published in issues of the Journal. Authors may publish regardless of membership in the Agricultural Institute of Canada or its affiliated societies. Papers must be written in either French or English with an abstract in both. If not submitted by the author, the abstract will be prepared at nominal cost by the Journal. A charge of $40.00 per published page plus charges for illustrations and tables will apply to all manuscripts. Editor: A.R. Maureer, Research Station, Agriculture Canada, P.O. Box 1000, Agassiz, British Columbia V0M 1A0 CANADA.

Indexed in: ba bi ca cc sc cab

CRC critical reviews in plant sciences
ISSN: 0735-2689 Frequency: q 1987 volume number: 6
Subscription price: $104.00 Size of mailing: -0-
Publisher: CRC Press Inc

SCOPE OF PUBLICATION: Contains up-to-date and in-depth reviews of timely subjects in the various aspects of plant science with special emphasis on the role that plant sciences might contribute to increased crop productivity and alleviation of world food supply and energy resources.

Instructions for authors: An Editorial Advisory Board identifies topics of current interest and selects authors to review and synthesize the recent literature.

Indexed in: ca sc

Crop research; an international journal for the publication of research into the improvement of crop production (formerly Horticultural research)
ISSN: 0264-3049 Frequency: sa 1987 volume number: 27
Subscription price: $35.00 Size of mailing: 700
Publisher: Scottish Academic Press

SCOPE OF PUBLICATION: The journal is offered as a medium for the publication of research papers and reviews on subjects connected with the application of science to the improvement of crops and crop production. Within this general context the Editors welcome original contributions in the fields of experimental agronomy, plant breeding, genetics, plant physiology, plant pathology, soil science, biometrics and related disciplines. Reports on such topics as cultivar performance trials are considered for publication only if they are of more than local interest. Papers which make an original contribution to the history of crop production in its more technical and scientific aspects will also be welcomed, provided that they are fully documented and otherwise meet editorial requirements

Instructions for authors: A brief instruction section is published in the issues of the journal and outlines editorial policy, preparation of the manuscript and submission details. In addition to the English summary, a summary in any one of the other major languages will be published upon request. Editors: C.A. Wood, Brownfield, 19 Seabank Road, Prestwick, Ayshire, KA9 1QS, UK; Pauline B. Topham, Crop Sciences Division, Scottish Crop Research Institute, Invergowie, Dundee, DD2 5DA, UK; and R.J. Killick, Scottish Crop Research Institute, Invergowie, Dundee, DD2 5DA, UK.

Indexed in: bi ca sc cc ba cab bib

Crop science
ISSN: 0011-183x Frequency: bm 1987 volume number: 27
Subscription price: $65.00 Size of mailing: 4,000
Publisher: Crop Science Society of America

SCOPE OF PUBLICATION: Articles concerned with experimentation, or research in field crops, will be accepted for review. Crop science is the normal channel for publication of original research findings in plant genetics, breeding, cytology, metabolism, physiology, ecology, weed science, and crop quality, production and utilization. Papers reporting original research findings and short critical reviews of selected subjects are acceptable for publication. Short papers covering experimental techniques, apparatus and observations of unique phenomena, may be submitted as NOTES.

Instructions for authors: Suggestions for Contributors to Crop Science is published in the first issue of the volume. At least one of the authors must be an active member of one of the three societies: Crop Science Society of America, American Society of Agronomy, or Soil Science Society of America. Publications Charges are $70 per page for the first four pages and $75 for each additional half page. Authors may also be charged for the cost of illustrations or tables beyond $15 for each contribution. E.W. Stuber is Editor in Chief, but manuscripts should be sent to: William R. Luellen, Managing Editor, Crop Science, 677 South Segoe Road, Madison WI 53711 USA.

Indexed in: ba bi ca bib cab cc sc

Economic botany
ISSN: 0013-0001 Frequency: q 1987 volume number: 41
Subscription price: $45.00 Size of mailing: 2,000
Publisher: Society for Economic Botany

SCOPE OF PUBLICATION: As the official journal of the Society for Economic Botany, Economic botany specializes in scientific articles on past, present, and future uses of plants by people--with the impact of plants on humans and civilization and vice-versa. Emphasis is on "uses" rather that on growing plants; purely agronomic or horticultural papers should be sent to journals more appropriate.

Instructions for authors: Manuscript requirements are listed in the first issue of the volume. Authors working for institutions or under research grants providing funds for publication will be asked to pay page charges. Such payment, however, is not a condition of acceptance of papers for publication. Papers for consideration for publication should be sent to: Dr. John W. Thieret, Biological Sciences, Northern Kentucky University, Highland Heights, KY 41076 USA.

Indexed in: ba bi ca cc sc cab

Euphytica; Netherlands journal of plant breeding
ISSN: 0014-2336 Frequency: ta 1987 volume number: 36
Subscription price: $63.63 Size of mailing: 1,750
Publisher: Stichting Euphytica - Foundation Euphytica

SCOPE OF PUBLICATION: The Editorial Board proposes to give breeders and scientists an opportunity of publishing the results of their endeavor in matters related to the breeding of plants.

Instructions for authors: Contributions must be written in English. Manuscripts for publication should be sent to the managing editor Dr. A.C. Zeven, Euphytica. Lawickse Allee 166, P.O. Box 387, 6700 AJ Wageningen, THE NETHERLANDS

Indexed in: ba sc ca cc cab

Field crops research; an international journal
ISSN: 0378-4290 Frequency: m 1987 volume number: 16
Subscription price: $290.32 Size of mailing: -0-
Publisher: Elsevier Science Publishers

SCOPE OF PUBLICATION: The journal publishes research results of international relevance arising from the scientific study of crops and farming systems. The subject fields covered include crop agronomy, improvement, physiology, ecology, and protection; soil and water management; and farming systems. Crops dealt with are: cereals, non-cereal carbohydrate crops, pulses, sugar crops, oil crops, fibre crops, beverage crops, rubber, tobacco and forages. Crop storage, transport and utilization, or social and economic aspects of crop production are outside the scope of the journal.

Instructions for authors: A detailed guide for authors is published in the first issue of the volume, or is available upon request. There are no page charges. Manuscripts should be submitted to G.F. Arkin (submissions from the Americas) BLackland Research Center, Texas Agricultural Experiment Station, P.O. Box 6112, Temple TX 76503-6112 USA or to the Editorial Secretariat, Field Crops Research, P.O. Box 330, 1000 AH Amsterdam, THE NETHERLANDS

Indexed in: ba cc sc cab

Fruit varieties journal
ISSN: 0091-3642 Frequency: q 1987 volume number: 41
Subscription price: $12.00 Size of mailing: 1,000
Publisher: American Pomological Society

SCOPE OF PUBLICATION: The journal is a publication of the American Pomological Society.

Instructions for authors: Manuscripts submitted for publication in Fruit varieties journal are accepted for publication after recommendation of at least two editorial reviewers. A charge of $30.00 per page ($15.00 per half page) plus cost of engravings will be made to authors for those articles constituting publication of research. Manuscripts should be sent to Dr. David C. Ferree, Department of Horticulture, Ohio Agriculture Research and Development Center, Wooster, OH 44691 USA.

Indexed in: ba cc cab

Hortscience
ISSN: 0018-5345 Frequency: bm 1987 volume number: 22
Subscription price: $125.00 Size of mailing: 6,000
Publisher: American Society for Horticultural Science

SCOPE OF PUBLICATION: As an official publication of the American Society for Horticultural Science the journal contains information of interest to a broad array of horticulturists and is intended to serve the communication need of all levels of ASHS membership. Its goals are to apprise horticultural scientists and those with interests in horticulture of developments in science and industry, of significant research, education, and extension findings of methods and of changes and trends that affect the profession. Subject categories for reports are as follows: production and culture; post-harvest horticulture; marketing and economics; education and extension; cellular and plant physiology; breeding and genetics; biotechnology; subtropical and tropical horticulture; and miscellaneous. Hortscience is oriented to the horticultural industry as well as to the science and the profession of horticulture.

Instructions for authors: Authors are encouraged to purchase ($5) and use the ASHS Publications Manual, a 90 page guide for preparing manuscripts submitted for publication by the Society. The manual is the primary source for writing, style, editing, and procedural guidelines for HortScience and the Journal. Membership in the Society is not a requirement for publication but authors are encouraged to consider membership. Publishing fees, currently $85 per printed page, apply to all reports, notes, cultivar and germplasm releases, and unsolicited review articles. The financing policy was developed by the ASHS Board of Directors and the specific policy may be found in the instructions to authors of the first issue of the volume.

Indexed in: sc ca ba bi cab cc

Journal of cereal science
ISSN: 0733-5210 Frequency: bm 1987 volume number: 5
Subscription price: $147.00 Size of mailing: -0-
Publisher: Academic Press

SCOPE OF PUBLICATION: The Journal of cereal science exists primarily to provide cereal scientists with a sound and viable means of formal communication and a continuing, accessible record of scientific developments. To meet this objective, it publishes papers that relate to the functional and/or nutritional quality of cereal grains and their products. Papers on the composition, structure, physical properties, chemistry, biochemistry, biotechnology, nutritional properties and analysis of cereal grains materials derived therefrom and cereal-based foods, beverages, animal feedstuffs and industrial products will be considered for publication. Papers dealing with the genetics, agronomy, physiology, pathology, etc of cereal are also welcomed provided that the research is clearly related to functional or nutritional quality. The Journal of cereal science is an international journal and publishes papers originating in any country. However, papers dealing with topics of only restricted local interest will not be accepted unless the information presented can be demonstrated to be of general applicability. The general aim of the journal is to advance scientific, technological, nutritional, genetical, etc. concepts in cereal science rather than to act as a repository for data. Papers that are essentially archival in nature will, therefore, not be accepted.

Instructions for authors: Notes for Contributors is published in the first issue of the volume. Address for submission of manuscripts: Dr. T. Galliard, Editor, Journal of Cereal Science, The Lord Rank Research Centre, Lincoln Road, High Wycombe, Bucks, HP12 3QR UK

Indexed in: ca cc sc

Journal of environmental horticulture
ISSN: 0738-2898 Frequency: q 1987 volume number: 5
Subscription price: $30.00 Size of mailing: 700
Publisher: Horticultural Research Institute

SCOPE OF PUBLICATION: The journal is the publication of the Horticultural Research Institute which is devoted exclusively to the support and conduct of research necessary for the advancement of the nursery industry. Its main function is the collection of research information and the dissemination of that information to the nursery industry, educators, scientists, extension personnel and interested public.

Instructions for authors: Editor: Dr. Thomas A Fretz, Head, Department of Horticulture, Virginia Polytechnic Institute and State University 301 Saunders Hall, Blacksburg, VA 24061 USA

Indexed in: ca

Journal of horticultural science (Horticultural and Agricultural Research Station, UK)
ISSN: 0022-1589 Frequency: q 1987 volume number: 62
Subscription price: $103.00 Size of mailing: 1,150
Publisher: Headley Bros. Ltd

SCOPE OF PUBLICATION: This journal exists to publish results of research on fruit and other perennial crops, vegetables and ornamentals. The Publication Committee welcomes papers from both temperate and tropical countries describing original investigations of interest to those engaged in scientific research and the practice of horticulture.

Instructions for authors: Notice to Contributors is published in the recent issues of the journal. Manuscripts should be sent to the Editor: G.E. Tidbury, East Malling Research Station, Maidstone, Kent ME19 6BJ UK

Indexed in: ba bi sc ca cc cab

Journal of range management
ISSN: 0022-490X Frequency: bm 1987 volume number: 40
Subscription price: $56.00 Size of mailing: 6,000
Publisher: Society for Range Management

SCOPE OF PUBLICATION: Journal articles report findings in plant physiology, animal nutrition, ecology, economics, hydrology, wildlife habitat, methodology, taxonomy, grazing management, soils, land reclamation (reseeding) and range improvement (fire, mechanical, chemical). Technical notes are short articles (usually less than two printed pages) reporting unique apparatus and experimental techniques.

Instructions for authors: A brief instruction page is included in the issues of the journal which is reproduced from the Handbook and Style Manual for the Journal of Range Management. These booklets are available from the Society for Range Management, 2760 West Fifth Avenue, Denver CO 80204 USA. Contributions may be sent to the Editor, Patricia G. Smith at the Society address.

Indexed in: ba bi ca cc cab bib

Journal of stored products research
ISSN: 0022-474X Frequency: q 1987 volume number: 23
Subscription price: $145.00 Size of mailing: 1,000
Publisher: Pergamon Press

SCOPE OF PUBLICATION: Papers offered for publication should be original contributions dealing with the biology, ecology, physiology, behavior, taxonomy, genetics or control of the insects, mites, fungi, and other organisms associated with stored products or farm and domestic buildings, or with studies on the physical and chemical nature of the

environment which have relevance to these organisms and their control. Short communications that the author does not intend to publish in more detail at a later date will also be acceptable. Review articles will be accepted by arrangement with the Editors.

Instructions for authors: Notes for Contributors is published in the issues of the Journal. Manuscripts may be sent to the appropriate Editor: Australia and Asia: B.R. Champ, ACIAR Grain Storage Research Program, c/o C.S.I.R.O. Division of Entomology, P.O.Box 1700, Canberra City, A.C.T. 2601 AUSTRALIA; The Americas: E.G. Jay, Journal of Stored Products Research, P.O. Box 23204, Savannah, Georgia 31403 USA; Europe and Africa: P.F. Prevett, Overseas Development Administration, Tropical Development and Research Institute, Storage Division, London Road, Slough SL3 7 HL UK

Indexed in: ba ca cc cab

Journal of the American Society for Horticultural Science (formerly Proceedings)

ISSN: 0003-1062 Frequency: bm 1987 volume number: 112
Subscription price: $95.00 Size of mailing: 5,000
Publisher: American Society for Horticultural Science

SCOPE OF PUBLICATION: The Journal is the Society's primary repository for detailed papers of completed basic or fundamental research in horticultural science. Papers must deal with results of original research on horticultural plants and their products or be of direct interest to horticultural scientists. Subject categories are as follows: production and culture, postharvest horticulture, marketing and economics, education and extension, cellular and plant physiology, breeding and genetics, biotechnology, subtropical and tropical horticulture and miscellaneous. Papers of only local (limited) interest are more suitable for HortScience the Society's other bi-monthly publication.

Instructions for authors: Authors are encouraged to purchase ($5) and use the ASHS Publications Manual as a guide for preparing manuscripts submitted for publication by the Society. The manual is the primary source for writing, style, editing, and procedural guidelines for HortScience and the Journal. Pages charges are currently $85 per page but the ASHS Publications Manual describes the exact terms. Membership is not required for publication but authors are encouraged to consider membership

Indexed in: ba bi ca sc cab

Plant cell, tissue and organ culture; an international journal on in-vitro culture of higher plants

ISSN: 0167-6857 Frequency: bm 1987 volume number: 8
Subscription price: $236.00 Size of mailing: 1,200
Publisher: Martinus Nijhoff Publishers

SCOPE OF PUBLICATION: The Journal publishes original results of studies on the various aspects of the in vitro culture of higher plants--including fundamental, methodological, and technical aspects. Topics include growth and development, technical aspects, anatomical, histological and ultrastructural aspects; physiology and biochemistry; genetics and breeding; phytopathological aspects and biotechnology.

Instructions for authors: Instructions to authors are published in the last issue of the volume and are available on request from the Publishers or the Editor-in-Chief Donald K. Dougall, Botany Department, University of Tennessee, Knoxville, TN 37996 USA. Manuscripts may be sent to the Editor-in-Chief at the above address.

Indexed in: ba ca cc cab

Plant foods for human nutrition (formerly Qualitas plantarum.)
ISSN: 0377-3205 Frequency: q 1987 volume number: 37
Subscription price: $85.00 Size of mailing: 500
Publisher: Martinus Nijhoff Publ

SCOPE OF PUBLICATION: The revised Plant foods for human nutrition is an international journal that publishes reports of original research and critical reviews concerned with the improvement and evaluation of the nutritional quality of plant foods for humans as influenced by: biotechnology (plant breeding), cooking and processing, ecology (climate and soil), and plant nutrition (production practices). Relevant papers on clinical and toxicological and epidemiological surveys are also published.

Instructions for authors: Instructions to authors are published in the last issue of each volume and are also available upon request from the publisher or the Editor. Manuscripts may be sent to the Editor C.E. Bodwell, Protein Nutrition Laboratory, Human Nutrition Center, P.O. Box 206, Beltsville, MD 20705 USA

Potato research
ISSN: 0014-3065 Frequency: q 1987 volume number: 30
Subscription price: $45.45 Size of mailing: 1,200
Publisher: European Association for Potato Research

SCOPE OF PUBLICATION: The journal is composed of original contributions on fundamental and applied research on potatoes and reviews. It is published by the European Association for Potato Research to promote the exchange between various countries of scientific and general information relating to all phases of the potato industry and to encourage and assist international cooperation in the study of problems of common interest in this field

Instructions for authors: Notice to Contributors is published in issues of the journal and manuscripts may be sent to the Editor, P.O. Box 20, 6700 AA Wageningen, THE NETHERLANDS

Indexed in: ba ca cc cab

Scientia horticulturae
ISSN: 0304-4238 Frequency: 16/yr 1987 volume number: 32
Subscription price: $362.90 Size of mailing: -0-
Publisher: International Society forHorticulturalSci(Elsevier

SCOPE OF PUBLICATION: A general horticultural journal of a fully international character, the central theme is crops and crop growing. The journal deals with horticulture under moderate, subtropical and tropical conditions, as well as with open and protected crop growing of vegetables, fruit, mushrooms, bulbs, and ornamentals. Papers concerned with subdisciplines related to crop growing (soil science, plant breeding, plant physiology, phytopathology etc.) are considered if they contain information of direct significance to horticulture. Papers on more technical aspects of the subject (mechanization, crop processing, storage, etc.) are only accepted for publication if they bear relation to the living product. In the case of plantation crops, those yielding a product to be used fresh (tropical vegetables, citrus fruits, bananas and other fruits) will be covered, while those requiring processing (e.g. rubber, tobacco, tea, quinine) will not.

Instructions for authors: This journal has no page charges and the manuscripts may be submitted to the Editorial Secretariat of Scientia Horticulturae, P.O. Box 330, 1000 AH Amsterdam, THE NETHERLANDS

Indexed in: ba ca cc cab

Tropical agriculture
ISSN: 0041-3216 Frequency: q 1987 volume number: 64
Subscription price: $133.00 Size of mailing: -0-
Publisher: Univ of the West Indies (Butterworth Scientific)

SCOPE OF PUBLICATION: Tropical agriculture is glad to receive and consider for publication manuscripts on topics concerning tropical agriculture with particular emphasis on subjects such as agronomy, crops and pastures, biology and physiology of economic crops, biomass for energy (production and conversion), crop breeding, ecology of the tropics and land-and-water-use capability, economics and sociology of agriculture, farming systems (analysis and development), horticulture, livestock breeding, management and nutrition, plantation crops, post-harvest technology, protection against pests, diseases and weeds and soil science and management.

Instructions for authors: Notes for Authors is published in issues of the journal for general guidance only and a fuller version is available from the publishers. Contributors may submit their manuscripts to the Editor-in-Chief F.W. Cope, c/o Butterworth Scientific Ltd., P.O. Box 63, Westbury House, Bury Street, Guildford, Surrey GU2 5BH UK or to the University of The West Indies.

Indexed in: ba bi ca cab bib

Zeitschrift fuer Pflanzenzuechtung (Plant breeding)
ISSN: 0179-9541 Frequency: 8/yr 1987 volume number: 98
Subscription price: $394.00 Size of mailing: -0-
Publisher: Paul Parey Verlag (Berlin)

SCOPE OF PUBLICATION: Plant breeding publishes original papers, short communications, review articles, and book reviews of particular international interest in the field of botanical breeding research and research in practical breeding of cultivated plants. Preference is given to work on leading crop plants and work containing new methodological approaches or results of wider significance.

Instructions for authors: A brief version of instructions to authors is published in issues of the journal and a more detailed version will be sent upon request. All manuscripts as well as articles intended for review (clearly marked for review) should be addressed to one of the members of the Editorial Board, who are listed in issues of the journal.

Indexed in: ba ca cc sc cab

A Report from BIFAD
to AUSUDIAP Annual Meeting, Galilee, Rhode Island

R. W. Kleis, Executive Director

June 3, 1987

Since last years report to you, four new persons have joined the seven person BIFAD; Dr. W. E. Lavery as Chairman and Drs. H. O. LaBounty, L. H. O. Spearman and L. M. Walsh as members. Former Congressman Paul Findley, first appointed in 1983, was reappointed. Other earlier appointments were Dr. Jean Ruley Kearns (February 1986) and Mr. L. W. McNutt, Jr. (September 1985). So it is largely a new Board with strong credentials and commitment. Under the highly capable leadership of Bill Lavery it is already aggressively serving the cause of Title XII and the U.S. university community which you represent through action programs.

The Budget Panel as the only standing Panel of the Board and Chaired by Harold Matteson, continued to function actively in analyses and recommendations for BIFAD efforts with the Agency and Congressional units. Three ad hoc panels of the Board have served specific assignments:

- JCARD structure, composition and functions - Chaired by Spearman
- Procurement process concerns - Co-chaired by Kearns & Langmaid
- University commitment and performance - Chaired by LaBounty

The JCARD has been somewhat restructured and reconstituted to fourteen members serving three year staggered terms and with a single chair serving one year terms alternating between university and A.I.D. persons. Membership as of June 1, 1987:

Duane Acker, A.I.D./S&T, Chair	John Nicholaides, U. of Ill., Vice Chair and Chair-designate
Donald McClelland, PPC	R.L. Apple, N. C. State
Frances Moncada, Procurement	James Henson, W. St. U.
Kenneth Prussner, A.I.D./AFR	Wm. Hytche, U. of M.E.S.
Malcolm Purvis, A.I.D./ANE	Gelbert Kroening, S.I.U.
Steve Wingert, A.I.D./LAC	Norman Collins, For' Found.
James McVey, NOAA	James Walker, U.S.D.A.

The JCARD serves very special and important roles for Title XII and the BIFAD and is testimony to the vision of those who framed the concept and legislation involved Two important characteristics of the JCARD are key to its effectiveness: (1) the jointness of membership representing the entities involved and (2) the day to day involvement of the members in program development and management.

Title XII, 1987

In viewing the status and environment of development assistance efforts in general and Title XII programs in particular, there are troublesome realities which tend to dominate the scene. They include budget squeezes which are clearly to continue as a factor in the foreseeable future; geo-political strategies which greatly distort the distribution and utilization of development assistance funds; domestic economic stresses which induce reactions detrimental the international development assistance (U.S. self-interest) cause; and internal shifts of assistance emphases reflecting some erosion of food and agricultural emphasis as a basis for more general social and economic development. These need to be recognized and dealt with in continuing efforts.

In this report, however, attention is focused upon the positive elements of Title XII conditions and programs at this point in time. The more conspicuous of these include:

--- The U.S. Title XII universities in general have developed a much higher level of capability, experience and commitment for participation in development assistance projects and increasing selectivity and sophistication in responding to RFPs.

--- The level of involvement is increasing continuously in spite of budgetary constraints. The following data represent the total A.I.D. programs "volume of business" for 50 universities reporting such data to A.I.D./RUR:

1981	-	$51,025,000
1982	-	62,999,000
1983	-	88,687,000
1984	-	104,355,000
1985	-	111,229,000
1986	-	114,916,000*

* Conservatively estimated from 36 of 50 institutions reporting to date.

--- Some forty universities have current program support grants or continuing strengthening grants (2) to enhance their institutional participation in development assistance contracts.

--- The Collaborative Research Support Programs (CRSPs) are maturing in the execution of global research networks and are increasing their output of recognized useful results which are being verified in usage. Such definable and publicized results are important even in programs recognized as necessarily long term.

--- There is increasing recognition and testimony in the Agency of the importance of long term effort and continuity of involvement for most development projects and especially those relating to research, education and institutional development.

--- A.I.D. has moved to clarify procedures for and encourage usage of non-competitive project extension or follow-on phases with contractors having satisfactory performance records. This is especially favorable to many Title XII type contracts.

--- The concept of a "Post Contract Linkage" program has been endorsed by the Title XII community, the U.S.A.I.D. field missions and formally by BIFAD. The specific operational guidelines and the budgetary accommodation are being addressed by A.I.D. with the BIFAD/staff.

--- The several Consortia of Title XII institutions have passed through some troubled periods and seem to have clarified and streamlined their operations for responsiveness, accountability and project execution. Concurrently there seems to be a much more positive image and acceptance within the Agency.

--- Development assistance emphasis on Africa, the research and agricultural faculties development plan, and the separated "Africa fund", offer special potential and opportunities for Title XII interventions in the years ahead.

--- A companion Africa strategy plan related to natural resource conservation and management offers challenge to universities for leadership and adaptation of project concepts for integration with food and agriculture, collaboration and coordination of interventions. Likewise renewed and balanced emphasis on "low resource agriculture" offers an opportunity for leadership by Title XII institutions involved.

--- Private firms and PVOs are intensive in their interest and legitimate in their capabilities for several types of developmental involvement. Title XII universities have the very major pool of technical and professional resources and unique and much needed capabilities. With larger and more complex projects it seems altogether appropriate that there be increased collaboration of units involved in "ad hoc" partnerships which provide the broader spectrum of capabilities. Universities might well lead in orchestrating such partnerships. (Such collaboration has been a common pattern in domestic research and extension programs for many decades.)

--- Title XII universities have established a pattern of increasing success in competitive proposals responding to open competition RFTPs. This may well be important as projects become broader and classification for Title XII set-aside becomes more difficult to establish. If we are as strong as we believe, we should not fear this as long as it is indeed an "open" and objective process.

These and other plus factors characterize the relative status of Title XII programs within the total technical assistance portfolio of A.I.D. The principle concerns relate to the status of that portfolio in the larger arena of foreign assistance and which for multiple reasons is experiencing serious erosion of public and legislative support. This is much too important to the self-interests of the U.S. to allow to continue. Through project performance and public information initiatives, the Title XII institutions have with their special public and congressional relationships, have obligations to help turn this trend around.

There are numerous current or pending personnel changes in upper echelons of the Agency; a new Administrator, a new Counsellor, two of three Assistant Administrators of Regional Bureaus, other Assistant Administrators and several other key positions. But except for "break in" periods, there is no reason to assume these changes are detrimental to Title XII.

Finally, I would urge you and your colleagues in Title XII universities to:

--- continue to improve grant and contract project performance through capable and responsive project management, staffing with quality and improved preparation support and recognition of field team members

--- broaden your program portfolio to include sponsors other than A.I.D.

--- recognize that your international responsibilities at your institution are not synonymous with development assistance involvements but include developed country relationships and on campus programs development to fit needs of today and tomorrow.

We are all fortunate to be involved in professional duties which are so easy to be committed to and so rewarding from even modest accomplishments. I hope you are as appreciative as I am to be associated with the Title XII cause and the people involved.

NEWSLETTERS AS AGRICULTURAL DEVELOPMENT TOOLS: CHARACTERISTICS AND APPLICATIONS

by

Theodore Hutchcroft

Newsletters are a popular communication concept. There are thousands of commercial newsletters for which subscribers often pay $60 to $100 per year for 48 to 60 pages of typewritten text. One newsletter sells for $4500 annually.

This paper deals with noncommercial newsletters -- those which are parts of international agricultural development projects or programs. There are hundreds of these newsletters, too; we have no count. They are a medium of communication for research and extension agencies and other development institutions, for professional societies and associations, and for informal networks of scientists, administrators and other persons having common interests.

Newsletters have at least three qualities that make them attractive in a development communication plan:

- -- The publishing agency has full control of the publication, from the selection of the messages to the format to the design to the distribution.
- -- The audience is people with similar interests, goals, and activities. They are interested in learning and sharing through the newsletter.
- -- Newsletters as a medium have high readership and high message retention. A large percentage of newsletters, even those distributed at no cost to the audience, are filed for future reference.

Consider each newsletter as a unique creation, not as a standardized product. Though there are attributes which are common to most newsletters, it is best to think of this as a medium rather than as a proscribed format. "Newsletter" is more a state of mind than a set of how-to-do-it rules. Most persons have an idea of what they think a newsletter should be, but there is no standard as to what one must look like, how often it must be issued, how long it can be, whether it should be informal in tone or serious, or even that it be printed (it is possible to adapt the concept to audio or video communication).

There is an information overload, even in less developed countries. The substantial interest in newsletters is an attempt to break through some of the communication barriers that are faced in implementing agricultural development activities. The newsletter concept is that of a gatekeeper to filter, clarify, and direct information to the audience. The editor/compiler searches through the great volume of material, selecting that which is most important and useful to the narrowly focused audience. The chosen information is put into a format that is easily, quickly, and directly transmitted to the audience.

---

* Program Officer/Publications,
Winrock International Institute for Agricultural Development,
Morrilton, Arkansas, U.S.A.

These are some of the fundamental characteristics for a newsletter:

-- There is a defined audience made up of people who have a continuing interest in a specific topic.
-- It must contain information that is current, important, and interesting to the readers, thus serve the needs of the intended audience.

To those may be added other attributes for an institutional newsletter:

-- It must have a purpose; it must help the agency achieve its mission.
-- It must transmit information to the audience that is important to the agency. It must help to solve problems, meet challenges, and get things done.
-- It must be authorized and supported at the highest level of the agency, which includes provision of adequate human resources, access to information and funding, and to support services.
-- It must be designed, planned, and implemented within the context of the culture and institutional environment within which it is to function.
-- It must be distributed to the intended audience.
-- It must appeal to the intended audience as regards educational, social, and other status levels.
-- It must help the intended audience in such a way as to help them to do their jobs better, to learn to believe in the agency as an institution, to increase productivity (quantity and quality) by encouragement and motivation, and to improve morale and spirit.
-- It must be of sufficient quality to reflect the best image and aspirations of the agency.

Most newsletters -- including many in agricultural development projects -- seem to be started because somebody in the organization sensed a communication problem. "The staff members are not getting the word," is an oft used phrase. "Let's start a newsletter" is an automatic response for what is seen as a quick and easy solution. Someone may have read a Kiplinger newsletter with its use of short, punchy items, and typewritten format. "The Kiplinger people obviously are successful so that must be the way to print a newsletter." And, "it's only four pages so it won't take much staff time".

A newsletter founded on the basis of such thinking is probably doomed to a difficult life. Agency administrators will not be satisfied with the results, but unable to figure out what has gone wrong. After all, they did it just like the Kiplinger folks.

The place to begin on a newsletter is not with the "how to" but the "why". Why is a newsletter needed? What can this concept contribute to meeting the goals of the agency? What is the audience it must reach? Can there be an effective distribution system? What are the kinds of messages the newsletter should communicate? Who will be responsible for the newsletter? And, who will do the actual work?

The newsletter must be a part of the overall communication plan of the agency, which in turn must be a part of the general management plan.

It is helpful to plan the newsletter backwards, from the audience back through distribution to the editorial process. There should be a narrowly

defined audience. The more precisely this readership can be focused, the more effective the newsletter can be in accomplishing its goals. Why will the audience want to receive and read the newsletter? How will it help them? And, is there a reliable distribution system to assure that copies can be delivered promptly to the members of the intended audience? Distribution often is the most difficult part of the newsletter production for this is where the publishing agency has the least control of the procedures.

In 1982, there was an interest widely shared among the leadership of the Bangladesh Agricultural Research Council (BARC) for the council to have a newsletter. There had been one a few years previously, but it had lapsed after a short life. Explanations as to why and how this happened did not shed much light. While there was a desire to have a BARC newsletter, there was no unity of thought as to what it should be or do. The only "given" was that every respectable agricultural research organization should have a newsletter.

It was the author's recommendation that BARC's communication program should focus on unifying the 1600 scientists, managers, and technicians of the national agricultural research system. They are employed by a dozen autonomous agricultural research institutes, most of which are commodity-oriented, as well as by another dozen agencies involved in some lesser ways with research in agricultural topics. The communication goal was to guide these persons to see themselves as an integral part of the national system, rather than as merely rice or jute or fisheries scientists, but working together to achieve the country's food and agricultural goals.

This was the background for launching AGRESEARCH NEWS as a newsletter for BARC in mid-1983. A rationale was prepared for the Chairman, BARC, based on the concepts presented earlier in this paper, and became the guidelines for publishing the newsletter well into 1986.

There was an additional value to this project, which was being produced within the framework of an international technical assistance project. As the need for a newsletter was recognized by BARC leadership, producing the publication was a means of quick identification of the communications element of the technical assistance project. This is an important consideration.

One of the objectives of the technical assistance project was to help BARC develop an effective, functioning communication unit to operate activities such as the AGRESEARCH NEWS. As there was no such unit in mid-1983, the author -- in the role of technical assistance specialist -- quickly moved from being a consultant-advisor to being an editor-publisher. This was not an ideal situation from the standpoint of institutionalizing the newsletter within BARC. On the other hand, in the absence of a communication unit it was a means for BARC to move ahead in strengthening its position as the apex unit of the national agricultural research system. The newsletter was a visible and effective way of proceeding.

Too much of the news selection process for AGRESEARCH NEWS was left to the expatriate editor. While the final decision on each issue rested with the Chairman, BARC, there was only modest input into creating the "information pool" from which selections were made. This was a good way for a newcomer expatriate to learn about a country and a project, but it is not the best way to collect the information that could be most valuable to the readers and to the publishing agency.

The newsletter was used as an element of the BARC communication plan, and of the activities implemented through the technical assistance project. As the newsletter was a direct channel from BARC to the research personnel of the system, it could sometimes be used to go around the traditional bureaucratic barriers that constrain communication. For example, the newsletter was an effective means of informing scientists about the National Symposium on Agricultural Research. The official invitations to prepare papers and to attend had to be sent through the official chain-of-command, which often seemed to break down because of misunderstanding or inefficiency. The newsletter was a way of getting around such bottlenecks, and helped to make the Symposium a very successful celebration of the tenth anniversary of BARC.

The institutionalization of a newsletter is an important process, but one which goes slowly, especially when "outsiders" have important responsibilities for its production. Every possible effort must be made to avoid it becoming a personal activity, as in this case, "Hutchcroft's newsletter". The editor, whether national or expatriate, must give considerable thought and time to working with the leadership of the publishing agency agency as well as with the constituent institutions to develop their interest and support. They must see the newsletter as an activity strengthening their roles within the research system, not threatening to undermine it. (At this point I want to make an aside about newsletter informality. Each newsletter has its own personality. Often they are serious, trying to be "strictly business". Others can be light-hearted and informal yet still meet agency goals. For example, the chief administrator can use the newsletter as a personalized communication to the staff. In this manner, newsletters are one of the few opportunities we have left for personal journalism.)

The expatriate editor soon learns about different interpretations of news values and newsworthiness. There are times when he can insist upon adherence to certain standards, as in use of language, but there are others when it is necessary to follow local custom and practice. This, too, may relate to use of language (including local spelling of food crops) but also to the sensitivities of social order within the country.

The preparation of a newsletter for reproduction need not be an inhibiting constraint. Most countries have reasonably good printing facilities readily available. Photocopy equipment is widely used, too, and usually makes good reproductions of photographs and other graphics. The key factor in production is to do as much preparation in-house as is possible. This reduces costs, of course, but also can lessen the time gap between preparing the stories and delivering the copies to the readers. Electric typewriters or some of the computer software programs ("desk-top" publishing) can produce graphically attractive as well as economical "camera-ready" newsletters. (See Appendix for references.)

Equally as important as defining the role of the newsletter is the preparation of the distribution plan. A printed newsletter is an expensive waste without a workable procedure to get the copies to every individual in the intended audience. The goal for AGRESEARCH NEWS was to get a personal copy to each professional member of the research system: scientists, managers and administrators, and technicians. When timeliness is a goal, do not depend on one copy to be circulated throughout a department. When motivating and building spirit and unity, an individual copy is a symbol that each person is important. These goals are ample incentives for preparing an effective distribution system.

Within the BARC building it was relatively easy; a secretary or clerk was assigned to hand-carry a copy to the desk of each professional. The editor often hand-carried "first copies" to the Chairman and other key officials to be certain they were the "first-to-know". Within BARC, copies usually were given to senior level clerks and typists as well, to encourage them to feel they were a part of the agency.

The major challenge was in planning and carrying out deliveries to the intended readers located outside the BARC building. The postal service is undependable, though had to be used for sending copies to researchers posted at remote stations. Within the city, the most effective distribution was by messenger, usually a project vehicle carrying a clerk (something like a newspaper delivery person).

Most of the copies were shipped in bulk to the research institutes and their major sub-stations. Whenever possible, this was by courier, usually someone from BARC or the technical assistance project who was making trips to the facilities. Once at its destination, the distribution to individuals depended on the clerical staff. Every possible effort was used to encourage the directors of these facilities, and through them the administrative clerks, to handle these packets quickly and accurately. Unfortunately, it was not possible to get staff lists so the copies could be personally addressed.

To evaluate the newsletter, there must be a system of feedback. Most times this is informal. The editor and others look for comments -- verbal or in writing -- about the newsletter. The AGRESEARCH NEWS regularly included notices of new publications by, about, and for Bangladesh agricultural research. These generated requests for copies, which was one measure of readership. The high level of interest in the National Symposium on Agricultural Research was due in part to the newsletter. After a newsletter becomes established, news items may be contributed, another sign of readership and effectiveness. This measure takes on added value when the contributors are persons of importance within the research system, for they are perceiving the newsletter as a medium of value to their work, often serving to further their careers.

One of the concepts emphasized in this paper has been the need to narrowly focus the definition of the audience. In the case of AGRESEARCH NEWS, the audience was the scientific personnel of the research system. At the same time, newsletter publishers should consider secondary audiences, persons who can benefit from knowing more about the agency through this medium. The AGRESEARCH NEWS had a number of secondary audiences as the newsletter was BARC's sole news publication. Copies were distributed to top officials in the Ministry of Agriculture and other governmental and scientific agencies, to international donor agencies, to the news media, and to key contacts in the international agricultural research community. This was an added benefit for BARC, for these audiences were reached at minimal cost. The danger with large secondary distribution is for the publishing agency to lose track of the priorities of its publication program. In the BARC situation, the directorate could have forgotten that scientific personnel were the primary audience and shifted emphasis to reach the secondary audiences. When such a situation develops, it is time to assess the newsletter program. There may be need for a second newsletter.

Newsletters can be an important, effective element of a communication plan in an international agricultural development project. It is easier to define

what a newsletter is not than what it is (to cite Howard Penn Hudson in The Newsletter on Newsletters, Vol. 23, No. 17, September 1, 1986). Each newsletter has its own personality, whether a commercial subscription venture or an institutional freebe. In most cases it is the product of one or two people who are committed to using this medium to fill a communication gap. Like all useful inputs in agricultural development (and other endeavors), newsletters must be carefully planned, executed, and institutionalized to accomplish their goals.

APPENDIX

There are many useful publications on editing and publishing newsletters. The following are excellent references, several having particular application to agricultural development. Their emphasis is on the mechanics of production rather than on policy issues such as newsletter concepts and distribution. In addition, there are innumerable books and articles on desk-top publishing. These tend to describe the use of computer technology in the editorial and design functions.

Beach, Mark. Editing your newsletter: A Guide to Writing, Design and Production. 1982. Coast to Coast Books, Portland, Oregon. $9.95 plus $1.50 postage and handling.

Hudson's Newsletter Director, 6th edition. Howard Penn Hudson, ed. 1986. The Newsletter Clearinghouse, Rhinebeck, New York. $75.00

"Newsletters" in Communications Handbook, third edition. 1976. American Association of Agricultural College Editors. The Interstate Printers and Publishers, Inc., Danville, Illinois.

Schuh, Colleen. Newsletters: Designing and Producing Them. 1978 revised. University of Wisconsin-Extension, Madison, Wisconsin. 76 pages.

The Newsletter on Newsletter. Twice monthly. An "independent, non-membership publication serving the needs of all newsletters worldwide". The Newsletter Clearinghouse, Rhinebeck, New York. $96.00 per year.

Wales, LaRae H. A Practical Guide to Newsletter Editing & Design. 1976. Iowa State University Press, Ames, Iowa. 52 pages.

Newsletters as Support to Networks

by

Steve Kearl*

When we talk about newletters as development tools we are talking about publications that have more to offer than simply relating an account of who traveled where on an international assignment or what foreign dignitaries recently visited our institution. A Newsletter becomes a development tool by creating a forum for the exchange of ideas and to relate experience of practical utility or of broader application. Above all a newsletter needs to serve its clientele. This means knowing something about that clientele, its interests and needs.

There are well over 100 formal international agricultural research networks operating today, ranging from forage legumes to developing agricultural machinery to learning about resistance in cattle to disease. Almost without exception these networks are served by and represented by a newsletter. Each has arisen out of an expressed need to share information related to specific methodologies, technology developments or disciplines in support of the network it serves.

In the final analysis, all networks are communication networks. That is what networks are about and that is the overriding premise for forming one in the first place. Members of a network belong to facilitate an exchange of information, to be able to interact with their peers in the scientific research community and to create professional linkages. Newsletters serve as catalysts to help provide and precipitate this interaction. In doing so they become tools for agricultural development.

To a newsletter, network membership translates as the mailing list. This list can be cultivated to make a newsletter more effective as a development tool. This can be done both formally and informally and is the job of the editor.

Most everyone is familiar with the informal approach: attending network functions and reporting on them; announcing upcoming activities; soliciting news items or articles and the like. But formal cultivation of a newsletter mailing list requires some sort of reader survey to gather useful information that the newsletter can then employ in better service to the network it represents. In other words the list can be used for more than addressing mailing labels.

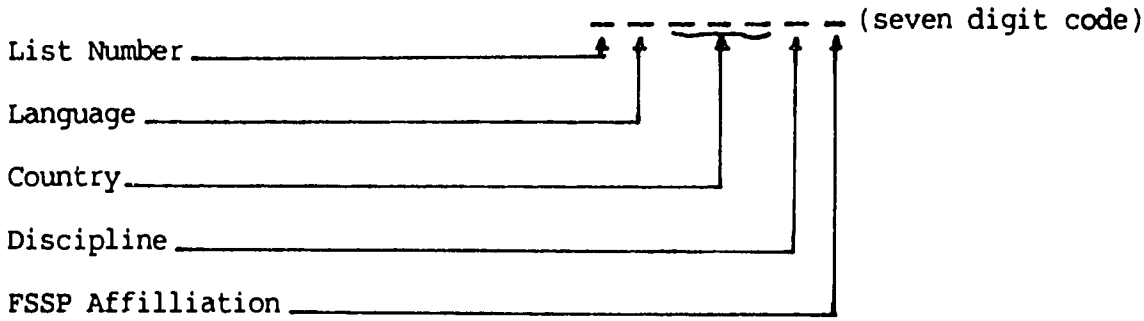
Without going into the mechanics or merits of hardware and software, most equipment used for list storage and maintenance has sort capabilities. This feature is commonly used to sort mailings by zip code in this country, or to printout a list, say, in alphabetical order, state-by-state. But this same sort capability can be used to advantage in other ways.

---

* Editor, Center for Tropical Agriculture
Institute of Food and Agricultural Sciences
University of Florida

Coding the list for Utility: An Example from Florida

A seven digit code appearing on University of Florida International Programs mailing labels identifies fields of reference and contains coded numbers or letters corresponding to information within those fields. The coded number represents information about each individual addressee and provides the ability to sort and target mailings geographically, by language, discipline, or by affiliation with the FSSP (or any combination of these). The key for interpreting the seven digit code is given below.



The fields of reference used are arbitrary ones, established because of their relevance to the Farming Systems Support Project and because of their compatability with project biodata files. Other fields of reference may be important under different circumstances. Examples include demographics on readership such as family size, sex, farm size, major crops, number and type of livestock or income from farm and off-farm enterprises. The point is, the process of coding a list is adaptable to any network or program and can be done for virtually any newsletter mailing list.

At Florida the process began as an exercise to purge the mailing list and continued as a means to garner information from new subscribing practitioners. Completion of the FSSP Newsletter Mailing List Update and Readership Survey form (next page) remains a prerequisite for an individual to be added to the mailing list.

The form used calls for various information in addition to that necessary to create the seven digit codes. Some of the information called for was wanted by project management. Two of the questions, however, relate directly to using the newsletter as a development tool.

The first of these is to identify the most pressing technical constraints facing field practitioners in their work.[1] The second is inviting readers to suggest articles or topical areas they would like to see featured in future issues of the newsletter. Both of these categories offer the editor (and project staff) a basis on which to determine and judge newsletter content for its appropriateness. While some consistency is required, both to meet expressed information needs and to maintain identity, to publish the same

---

[1]More than 1000 responses have been sorted to date, with 357 respondents identifying at least one field constraint. Problem codes were added to the mailing list codes for each of these. The resulting 9-digit code was entered into "dBase III", run on a Zenith 152 micro-computer. Sorts were run for problem codes, country codes and discipline codes. Results were tabulated and entered into "Open Access" and graphically displayed.

FSSP NEWSLETTER MAILING LIST UPDATE AND READERSHIP SURVEY

Complete and return this questionnaire in order to receive the FSSP Newsletter. Answer all questions that apply to you. Please write legibly.

1. Name_____ , _____
(last) (first)

2. Is your correct address shown below?_____(If your mailing address is incorrectly shown indicate your correct address on four lines only below)

_____

_____

_____

_____

3. In what disciplinary area are you presently working (e.g. agronomy, agricultural economics, etc.)?_____

4. Please identify your primary job activity or responsibility:_____

_____

5. Are you currently a field-level practitioner for FSR/E?_____(If you answered "no", go to number 8)

6. Official project title:_____

7. Identify three pressing technical problems facing the project:

A._____

_____

B._____

_____

C._____

_____

8. Have you participated in any FSR/E training courses or workshops?_____

9. Please suggest articles or topical areas that you would like to see featured in future newsletters:_____

_____

_____

newsletter this year that was published last year is a disservice to readers. Not only do needs and interests change, the audience itself changes. So too the tentative conclusion of an editor regarding readership must change.

Communicators need to both understand and have a participatory role in the agricultural development process. As part of an overall strategy, newsletters can contribute more than they might otherwise if they are used as a tool to strengthen the process. Their ability to do so is in part a function of their ability to extract information from readers. The sort capability outlined here can and has contributed to network activities in several ways. Other newsletters using different fields of reference and different codes could do similarly.

Problem identification has influenced newsletter content in a series of discussions on recommendation domains, with articles on farmer participation in on-farm trials, and in identifying publications that welcome multidisciplinary research manuscripts. Articles have also been included as direct support to project training initiatives. Sorts have been employed to target agricultural economists in generating interest to contribute to training unit development where economic analysis is involved. Mailing of network papers and announcements of regional training courses have been targeted by discipline and by region.

The efficacy of a newsletter in keeping abreast of the network which supports it is not measurable without feedback. Letters to the editor provide some input, but solicited information of all readers offers a better gauge. Reader response to announcements or requests for participation is another measure. More than 250 responses were received following an announcement of farming systems assistantships. There were 90 proposals forthcoming, following a call for case studies supported by the FSSP and the Population Council. These responses say something about the interest of the network in assistantships and case studies. They also send a clear message to the editor: this is appropriate information to be including in future issues.

Not every newsletter is going to be a development tool. Some have specific target audiences or specifically defined content that precludes such use. But those that are in the mainstream of agricultural research and development can do more. The simple strategy outlined here could serve any newsletter.

Along the Path Between Prudence and Puffery; or, Can a Dirt-brown Broadsheet be an Effective Newsletter?

by A. E. Deutsch *

Every Organization Needs One

Beside a desk, telephone, and logotype, every organization, group, or cause thinks it needs a newsletter. The concept has merit; newsletters can function as a potent national or international communication tool.

Newsletters are created to share straightforward information, or convince and sway a targeted audience. Frequently a publication's goals may be slightly less than altruistic. Newsletters multiply at an exponential rate and expire as quickly.

Most newsletters, whether local, national, or international, are fundamentally similar: ink on paper, attempting to communicate through words, words and visuals, or--in a handful of cases--just visuals. A person (or persons) gathers information and organizes it into a set format. That person controls the look and read of the final product, often in tandem with a second force--whoever picks up the publishing tab.

Definition of a successful newsletter varies depending on the definer's relationship to the publication. One solid measure of accomplishment, however, is continuing support by the entity that pays the bills. Desired action by, and affirmative feedback from, newsletter recipients rank as further indicators of impact and effectiveness.

Content: Saying It

Content is critical: newsletter recipients take time and effort to read material that offers them something useful .... actionable information, ideas that touch their situation, news that in some way is perceived as helping to improve the quality of their life.

Thus, a first corollary: the more material printed with value to recipients, the better. People want and will read "news they can use."

From the United Nations to miniscule sales companies, organizations want their newsletters to accentuate the positive, never mind the negative, occasionally forcing editors to open the creative fiction spigot. Clever writers can camouflage self-serving material with more useful news. While a common practice, it's fraught with the dual risks of eroding recipient interest and evaporating feedback.

Predictably, the puffery issue leads to corollary number two: stuff a mute in the horn being tooted. A little lightly sprinkled self-congratulation is tolerable, even expected and discounted, but a lot shoveled on is a death knell.

Related to content, a valid--and unoriginal--tenet shouts: write as if you had to read and act on the information yourself. If the product spewing from the word processor doesn't meet your own criteria for crisp, understandable copy, rewrite to tighten it up.

Format: The Wrapping

Banking on content alone to assure readership is naive and unrealistic. Dedication just doesn't run that deep. Publications that combine useful content with a brisk, easily

---

* Editor IPPC INFOLETTER, and communication coordinator, International Plant Protection Center, and Office of International Research and Development, Oregon State University, Corvallis, OR 97331 / USA

read format will garner greater readership than those with unimaginative, fatiguing layouts that ignore considerate graphics.

Provide aid to over-worked eyes and score a grateful reader. Employ proven graphic devices to improve scanability/readability. Keeping paragraphs short and practicing indenting are not only considerate to readers, both stimulate faster reading and improved comprehension, the latter an obvious goal of any publication. Some designers take an additional step by breaking up paragraphs with call-outs.

Unless proportionally spaced type is used, it's advisable to leave the right side of a type column "ragged" to avoid exaggerated, unnaturally gappy looking spacing between words. Word processing programs with capability for full left-and-right justification, but not proportionally spaced type, create print that qualifies for typographical orthodontics.

Where resources permit, include graphic elements. Most newsletters can't afford original art, but thoughtful use of "clip art" often will suffice. Rules, boxes, screen or tint blocks, or other visual devices help break up grey looking text masses.

Newsletters from financially flush organizations can afford the ministration of professional designers. Out comes the palette of several ink colors, the tasteful original art, the clever typographic pirouettes. For the majority of publicly funded ventures, however, lush printing tends to cause shooting eyebrows and pointed questions from the accounting folks.

Going International

In directing a newsletter to an international, and by definition, diverse audience, several additional relevant points apply. For instance:

1.) Caution is the byword for using slang or idiomatic expressions. The same applies to professional jargon. If in doubt, omit and avoid perplexing some readers.
2.) If acronyms can't be skirted, be sure to spell them out the first time used in a communication.
3.) Avoid sounding possessive, down home, or even jingoistic, by skipping frequent use of the pronouns "we" and "our." It usually isn't "our program."
4.) When referring to measurements, consider using just metric, or a combination of metric (and English). For example: "5 cm (2 inches)."
5.) A useful device: let written communications age for at least 24 hours as drafts, then reread them critically to exorcise any unintended political or culturally demeaning statement. For a fresh viewpoint, ask a local counterpart to read, critique, and discuss drafts. Revise statements that cause confusion or misunderstanding.

About that Dirt-brown Broadsheet

Oregon State University chartered the International Plant Protection Center (IPPC) in 1969. True to form, creating a newsletter was high on the agenda. The first issue of the IPPC INFOLETTER appeared in 1970. It opened backwards, a classic case of on-the-job learning for the writer/editor.

Funding then and still springs from the U.S. Agency for International Development, channeled through a sequence of crop protection projects. Since 1970, 65 issues have been printed and distributed. The original mailing list ran just over 300; it now approaches 8,600 recipients in more than 140 countries. INFOLETTER began life as a quarterly, but has straggled into irregularity due to funding difficulties.

The publication has survived five format variants since that first inverted issue, but with certain bridging elements as a nod toward maintaining continuity. Prime among those characteristics is use of a single, folded--and, for the last 12 years, tan--sheet without binding or staples.

News to Use

Text runs 95% English spiced with short segments in Spanish and French. Articles are purposely kept brief, akin to extended summaries. Effort centers on including pieces covering a variety of crop protection topics (the underlying theme). Illustrated blurbs about machinery turn up in most issues, mainly because INFOLETTER's one and only writer/editor/artist/producer is a farm equipment fancier and amateur welder.

Somebody coined the term, "service journalism." In INFOLETTER, that translates to "news readers can use." There is a conscious attempt to reward readers. Most articles end with a contact name and address for follow-up use by interested readers.

Each issue contains standing sections, primarily for announcing items in print, dates and events, or--yes--editorials. The latter, while inserted sparingly to avoid blandness, need to be circumspect since INFOLETTER feeds at the public trough. Overall style, in fact, leans toward being respectful, but without lapsing into obsequiousness.

Two other conditions shape INFOLETTER. A policy adopted in 1970 and still in force allows and encourages IPPC to send the newsletter, without charge, to anyone who requests it: no qualifications, no quibbling. The policy risks a perceived negative image that often attaches to a freebie. And there is no cost recouping. IPPC, however, operates on the belief that AID is more concerned that no one be denied INFOLETTER because of financial limitations than with the lack of a subscription fee.

The second condition: INFOLETTER does not spring from a technical vacuum. The editor is a resident staff member of the International Plant Protection Center and interacts everyday with its staff scientist/specialists. That affords a unique exposure to the nuances of technical matters and an opportunity to monitor, better understand, and more clearly communicate relevant information. It's a major advantage over operating out of a central pool where journalists must rely on a beat approach to cover technical news.

The Payoff

Trying to reach and effectively communicate with a diverse international audience poses a substantial challenge. Very few widely disseminated publications can succeed in appealing to all their recipients. Decisions have to be made, often crassly, as to critical groups to reach. Glitches are inevitable.

The payoff comes in various forms. Two of the more tangible forms: to find people in out-of-the-way regions who refer to having "seen it in INFOLETTER," while waving a copy in the air; and, to be able to respond affirmatively to a steady trickle of requests to be added to the mailing list. These results prove a source of satisfaction to all involved with concept, funding, and production of a dirt-brown newsletter. They are ample justification for the exercise.

THE DEVELOPMENT COMMUNICATION REPORT: Linking Worlds and People

by Kathleen Moran*

Purpose/Background

To share information about the role communication plays in all aspects of development - from motivating people to adopt new techniques to actually helping to change behaviors.

In 1972, the Clearinghouse on Development Communication began publishing a newsletter for communication professionals to keep them informed about technologies that were being used in third world countries to improve educational opportunities for children and adults.

Today, the Development Communication Report looks at all sectors - agriculture, rural development, health and population, nutrition, women in development, as well as education - covering trends and issues concerning the application of communication technologies in developing countries. As new technologies and techniques are introduced in developing countries, the Clearinghouse features them in the DCR. All the media are covered from radio, video/tv, audiocassettes, film, print materials, computers, telecommunications, to interpersonal communication and traditional media such as folk theater and puppetry.

The DCR has over 6,000 subscribers - with approximately 1/4 in developed countries and 3/4 in the developing world. A majority of our readers are involved in project planning, administration and research and evaluation (NGO's and PVO's strongly represented among this group). Many subscribers are also instructors at universities or secondary schools either here or in developing countries.

Services

Our readers have one common overriding interest - to learn more about how communication techniques and tools are applied in developing countries and what the effects are when used.

1. DCR serves this common interest by:

   - surveying all relevant materials that come into the Clearinghouse and reporting on items of interest to communicators either by pursuing original articles from the field or by reprinting pieces found in other publications.

   - trying to achieve a geographical and topical balance in each issue to appeal to our broadly focused readership.

   - producing special-focus issues when materials warrant that either cover a particular topic or medium in greater depth (#49 radio education, #51 health, #53 video, #55 print materials, #57 agriculture!).

   - announcing meetings, conferences or training sessions of interest to communicators.

- regularly reviewing newly released books and publications accompanied by ordering information.

- subscribing to or exchanging publications with other organizations who publish materials relating to communication uses in developing countries to make certain we have up-to-date information on hand.

- offering free subscriptions to those in developing countries and charging only $10 per year to others.

- working with a mailing house in New York City who quickly and economically distributes our newsletter both domestically and overseas using US Postal bulk mail to Britain where it is sorted by country and air bulk mailed from there.

- surveying our readers periodically to update their addresses and interests. We had a 12 percent response rate from our last survey in the fall of 1984 (not bad considering how many of our readers are in developing countries).

2. Development Communication Report establishes networks with communication practitioners and serves as a linking device between practitioners by:

   - contacting practitioners in the field and encouraging them to submit articles. We then work with authors to prepare their materials for publication and offer them a small honorarium ($60) for original articles.

   - calling for submissions by our readers through announcements in the newsletter and considering all manuscripts that are received.

   - providing follow-up information with articles where appropriate so readers can request further information.

   - answering readers' questions whenever possible or finding someone who can.

   - keeping an updated subscriber database to track their frequent moves and evolving interests as well as to help plan future DCR issues that address those interests.

   - sharing information and strategies with other newsletters for development.

(Prepared for AUSUDIAP/ACE Conference, University of Rhode Island, June 2 - 4, 1987)

---

* Editor, Development Communication Report
Clearinghouse on Development Communication
Academy for Educational Development, International Division
1255 23rd Street, NW, Washington, DC 20037

The Role of Information Intensive Communication Systems in International Agricultural Development Projects

James W. King
University of Nebraska - Lincoln

Have we done a good job at integrating communication into international agricultural development projects? Probably we have not started at the right entry points to identify appropriate technologies--both hardware and human--necessary to achieve a project's objectives (King, 1984).

It seems we need a "farming systems" approach (Farming Systems Support Project, 1985) linking communication to projects. Communicators probably should be asking a question like "If you could design a communication system for sustainable agriculture, what would you do?"

In the past, communication scientists have tended to focus on mass media technologies. These technologies are generally urban oriented and situated, and bring external and non-relevant information into local communities. Communication scientists have tended to ignore not only the newer communication technologies but also the human performance technologies. These later technologies can provide techniques of needs assessment, audience analysis, message design, and evaluation (Fleming, 1980; Fleming and Levie, 1978).

Information Intensive Communication

As many of us have read in Megatrends (Naisbitt, 1982), there are three major revolutions which have influenced our human cultures over time. Beginning with the agricultural revolution (I think we are beginning to go through a second generation agricultural revolution with the emphasis on appropriate agricultural technologies and sustainable agriculture) flowing to the industrial revolution, Naisbitt maintains that today we are in the midst of an "information revolution". He argues that many of us do not realize the nature of this new revolution, nor the potential impact it will have on our total society.

Francis, Harwood, and Parr (1986) and Francis and King (1986) have discussed the information revolution's applicability to agriculture. They argue that information may be the farmer's most valuable resource, Information can help the agriculturalist access the available internal resources in a farm system in an efficient and cost effective way. The end product of an "information intensive communication system can be agricultural sys-

tems which are both more resource efficient and more sustainable.

By way of definition, information in a communication sense is anything that reduces uncertainty (Fuglesang, 1982). That means the messages we send are information only in the sense that they reduce an uncertainty in the receiver of the message; the audience must act on and use a message before it become information.

In farming settings, there are many questions such as what crop to plant?; how to control for certain pests?; which piece of equipment is better for a particular situation?; what is the current state of a farm's fertility?; how can weeds be efficienty controlled?; what set of management practices should be employed? All these questions can be summarized by the question a farmer might ask, "What do I need to know?"

Traditionally agricultural program bring messages to bear to answer these questions. Print materials, radio shows, and a varity of audio-visual media are incorporated into extension programs. If these messages and the subsequent management practices are substituted for purchased, external inputs, move a farming system may be moved and transformed into a more sustainable one. This is the basic premise behind information intensive management of agriculture and the new emerging strategies for communication.

Three Communication Theories

In this regard then, what is communication? The most powerful definition is the simplest--communication is the sharing of meaning. The implications are that a sender and receiver are involved, feedback is encouraged and noise reduced, many channels can be used, and messages are specifically tailored and formated to particular audiences.

And while there are many theories about communication, there are three very useful ideas for farming systems communicators. First, we would argue that the purpose of communication is to influence behavior. When we send messages, we want to influence our audience's behavior in some way; they will do something new, alter a traditional method, stop doing something, or continue doing sometning.

A second theory says that meanings are in people, not in words and not in pictures. Each member in the communication process interprets messages in their own manner. Kearl (1987) recently pointed this out.

Finally, we would suggest that reality is subjective; each individual sees objects and events from different perspectives. And it is through communication, the sharing of meaning, that these many realities become close enough in agreement that culture develops.

A Blend of Techniques

While science has given us many new insights, discoveries, and techniques about the way we can farm our lands and herd our livestock, it also has given communication scientiests new hardware tools and software techniques to better "share meaning". When all is said and done, the message is still the message, whether delivered by videodisc or flip chart, radio or puppet play. The media are tools and only tools to help communicators and agriculturalists share meaning. Media do indeed have attributes and our knowing about these attributes, such as motion and still framing, helps us develop and better structure messages to answer audience questions.

Thus a blend of instructional and educational technology, communication, technology transfer, and international development is needed to bring both human and hardware technologies to bear on communication problems in international development.

Videotape is one technology that is now easily available for international projects. In another paper in this Proceedings, Lattimore (1987) discusses the applications and techniques of video to development projects. Other uses of video will emerge from the new Super 8 (8mm) video format. This is a small, compact video system excellent for project documentation and reporting. Video is one technique to enhance agrotechnology transfer. Now video is being linked to the computer through videodisc technology and applied in international development projects (Killmayer, 1987).

At the same time, "older" technologies such as radio (Ray, 1985, 1987) and satellite systems (Hudson, 1985; Luyken, 1986) are being reapplied with new insights (Mattelart and Schmucler, 1985).

Even though the hardware of communication receive most of our attention, we are learning from educational and instructional technology and other behavioral sciences much about how to design and develop messages. And we are beginning to understand the issues related to the role of local culture and values in development projects (Saba, 1984). Elsewhere in this Proceeding, Saba (1987) highlights the differences between concepts of traditional society and discusses the role the application of communication technologies, both hardware and human technologies, can have in international agricultural development.

Africa remains a major focus of international agricultural development efforts and several authors have discussed communication strategies there (Kwame Boafo, 1985; Lapple-Wagenhals, 1984; McLellan, 1986). Kanyarusoke (1987a, 1987b) discusses the results of an assessment regarding African issues and relates agricultural needs to three levels of technology. These three levels call for specific inputs of both hardware and human technologies. Information intensive communication systems work very well with Kenyarusoke's third level. The high and medium levels of technology rely heavily on external inputs and downplay the role of internal resources available to the agricultural sector of most international projects.

Reconceptualizing Roles

As communication technologies allow for communication processes to become decentralized, U.S. university projects themselves will take more control over the design, development, and production of their own communication processes and products. This will be accomplished through the application of computer technologies, such as desktop publishing and computer graphics.

Communicators will have to reassess their own situations and roles. Evans (1985) spoke dramatically and forcefully to this issue at the 1985 AUSIDIAP-ACE meeting in St. Louis. Communicators will have to begin the process of reconceptualizing their roles; they must broaden themselves in their understanding both of the communication process in development and farming systems as well as the new information intensive communication systems model being developed; communicators will have to begin to demystify words; they will have to begin to see with experience and integrate host county nationals into communication planning efforts; they will have to come to believe that information is the opposite of uncertainty; they will have to begin serious and tough dis-

cussions on the role of technology in communication, and expand limited concepts of hardware technology to include the new human technologies.

The tasks for communicators are enormous, both to provide services to agricultural development projects as well as to study local communication environments, to learn and apply the new communication hardware and incorporate new message design techniques based on audience analyses and project goals, to reflect and positively reinforce local values while emphasizing resources based on intensive generation of information.

In Conclusion

By definition, the future is unknown. Yet we do know that we are in the midst of an information revolution affecting the communication processes, and the communication philosophies of our practioners.

And as newer communication theories develop, such as information intensive cropping systems, we will be able to provide farmers with information and boost their ability to make decisions and reduce uncertainty. Information will give people power, the ability "to be" based on lowering demand and need for external resources and enlarging capacity and use of internal resources in an intergrative agricultural structure.

This paper started with the question "If you could design a communication system for a sustainable agriculture, what would you do?" Much more information from many more people and disciplines is needed before we can really begin to develop an appropriate response. Yet we have made a start with the ideas of an information intensive cropping systems approach and with discussions at the 1987 AUSUDIAP-ACE meeting.

REFERENCES

Evans, J. 1985. International communications education and training: a look to the future. Ace Quarterly. 68(2):1-15.

Farming Systems Support Project. 1985. Project handbook:research and extension (emphasizing farming systems research and extension). Working draft #3. Farming Systems Support Project: Gainesville, Florida.

Fleming, M. L. 1980. From seeing and hearing to remembering: a conception of the instructional process. Instructional Science. 9(1980):311-326.

Fleming, M. and W. H. Levie. 1978. Instructional message design: principles from the behavioral sciences. Educational Technology Publications: Englewood Cliffs, New Jersey.

Francis, C. A., R. R. Harwood, and J. F. Parr. 1986. The potential for regenerative agriculture in the developing world. Amer. J. Alternative Agr. 1(2):65-74.

Francis, C. A., and J. W. King. 1986. Information intensive cropping systems. Proc. Wrokshop on Farming Systems, Research, & Extension: Food and Feed. Kansas State Univ.: Manhattan, Kansas. Paper No. 13a. pp. 71-83.

Fuglesang, A. 1982. About understanding: ideas and observations on cross-cultural communication. Dag Hammarskjold Foundation: Uppsala, Sweden. pp. 231.

Hudson, H.E. 1985. Opportunities for using telecommunications in development programs. In M. E. Miller (ed). International agricultural programs and agricultural communications. Winrock International, Association of U.S. University Directors of International Agricultural Programs and Agricultural Communicators in Education. pp. 155-170.

Kanyarusoke, C. 1987a. Needs and appropriate levels of educational technology for Africa: a needs analysis report. Paper presented at the annual meeting of the Association for Educational Communications and Technology, February 1987. Atlanta.

Kanyarusoke, C. 1987b. Nees and appropriate levels of technology in Africa. Paper presented at the Association of United States University Directors of International Agricultural Programs and Agricultural Communicators in Education meeting. June 2-4, 1987. Galilee, Rhode Island.

Kearl, B. 1987. Necessary elements for development in agriculture and their relevance to communication. Paper presented at the Association of United States University Directors of International Agricultural Programs and Agricultural Communicators in Education meeting. June 2-4, 1987. Galilee, Rhode Island.

Killmayer, A. 1987. "L'ecole des moniteurs:" videodisque de formation des conseillers agricoles de Cote d'Ivoire. Development Comm. Reports. No. 56: 15, 14.

King, J. W. 1984. Large university agricultural projects-communications problems and prospects. Ace Quarterly. 67(1):19-24.

Kwame Boafo, S. T. 1985. Utilizing development communication strategies in African socieites: a critical perspective (development communication in Africa. Gazelle 35(2):83-92.

Lapple-Wagenhals, D. 1984. A new development model--a new communication policy? On communications in Nicaragua before and after July 19, 1979. European University Studies: Series 31, Political Science, Vol. 64. Frankfurt-am-Main: Peter Lang.

Lattimore, D. 1987. Meeting farmers with videotapes: promising extension techniques. Paper presented at the Association of United States University Directors of International Agricultural Programs and Agricultural Communicators in Education meeting. June 2-4, 1987. Galilee, Rhode Island.

Luyken, G. M. 1986. Direct broadcasting satellites: a concept for the future. Media, Culture and Society. 8(2):183-197.

McLellan, I. 1986. Television for development: the African Experience. International Development Research Centre: Ottawa.

Mattelart, A. and H. Schmucler. 1985. Communication and information technologies: freedom of choice for Latin America. Ablex: Norwood, New Jersey.

Naisbitt. J. 1982. Megatrends: ten new directions transforming our lives. Warner Books: New York.

Ray, H. E. 1987. Communications for technology transfer in agriculture project. Paper presented at the Association of the United States University Directors of International Agricultural Programs and Agricultural Communicators in Education meeting. June 2-4, 1987. Galilee, Rhode Island.

Ray, H. E. 1985. Communication strategies to accelerate agricultural technical transfer. In M. E. Miller (ed).International agricultural programs and agricultural communications. Winrock International, Association of U.S. University Directors of International Agricultural Programs and Agricultural Communicators in Education. pp. 111-123.

Saba, F. 1987. Appropriate technology: human and hardware. Paper presented at the Association of the United States University Directors of International Agricultural Programs and Agricultural Communicators in Education meeting. June 2-4, 1987. Galilee, Rhode Island.

Saba, F. 1984. Instructional development in developing countries. J. Instructional Development. 7(1): 34-36.

USING VIDEOTAPE TO ENHANCE TECHNOLOGY TRANSFER

by

Dan Lattimore*

Introduction

The problem of facilitating technology transfer is an example of one of mankind's oldest habits--borrowing. Historically, we have borrowed ideas from others in order to advance our own society. Why,then, should we have difficulty transferring ideas from one culture to another?

There are numerous models for technology transfer to try to answer that question, but nothing in the literature suggests we have found one strategy that is universally accepted. There is no single model which is empirically tested, standardized, and implemented cross culturally. Much of the literature is either too abstract or too inconclusive. The process itself is quite complex, with a multitude of variables, many of which are hard to identify and still harder to quantify (Singh, 1983).

The purpose of this paper is to examine a relatively new technology, videotape, how it is being used to transfer agricultural technology and what the potential for it is.

Problems of Technology Transfer

Technology transfer is essential for accelerated economic development in the Third World. Without the resources available for basic research, it is necessary for developing countries to use ideas generated from others to advance as rapidly as is possible. When we consider technology transfer, we must remember that it is a process that has a number of interrelated variables. To create technology improvement, change in at least three areas is needed:

*social systems and human attitudes
*knowledge and human skills
*physical implements

The process of change in each of the areas is slow. Modernization of agricultural technology often will not occur even if equipment and other inputs are available because the social system is so slow to change. Agricultural needs are so great, however, in developing countries that they cannot wait for the same process that has taken place in the West over the last three centuries. For instance, formal education has been one of the major instruments in the growth process, but it takes time. Informal education must supplement this formal system if accelerated growth is to take place.

---

*Professor of Technical Journalism, Colorado State University, and Associate Director,Water Management Synthesis Project.

Technology Transfer Models

To accomplish the accelerated growth several models have been suggested. Popular models have included Diffusion, Package Programs, Induced Innovations and Training and Visit System. While each of these has some elements that are helpful, some are bound by the western culture, some are limited in seeking information from the client-user of the information (farmer), and some require strong existing farmer organizations. Another model, the Problem-Solver approach suggested by Havelock more than a decade ago, may provide one of the more realistic and useful approaches (Lattimore, 1986). It is also one in which video can play an important role.

The problem-solver model looks at the user (farmer) as the focal point and tries to articulate user needs to the source of information so that his needs may be met effectively. The major assumption here is that self-initiated change is the most likely lasting change. The user must not only accept the change, but must internalize it and make it his own. He is also more likely to accept those changes that meet his needs (See Figure 1).

If transfer of agricultural information is to be effective, audience analysis must be thoroughly completed before the start of the attempted transfer. In looking at audiences for transfer of technology in water management we consider the following five principal groups:

*scientists in host countries--This is peer communication,but it must be adapted depending upon differences in academic orientations, cultural traditions, and governmental constraints.

*high-level government officials in the host country--This communication tends to be in terms of policy formation and decision-making with regard to agricultural issues.

*mid-level government officials in the host country--This level tends to be technical people such as irrigation project supervisors, superintending engineer, and district directors.

*technical assistants--This includes extension agents, junior engineers, and community leaders.

*farmers--This includes both small and large farmers, and landowners, as well as renters.

Audience analysis should consider demographic and psychographic data, but should particularly look at why the audiences would benefit from the proposed changes. Messages need to be structured to meet those needs in order to induce the desired change.

Communication between user and information source speeds that technology transfer process. Video has potential to improve that communication process.

Videotape Use

Videotape is not new, but the use of electronic field reporting is. Electronic field reporting began about 10 years ago with the advent of battery operated cameras that were lightweight and portable (Shook and

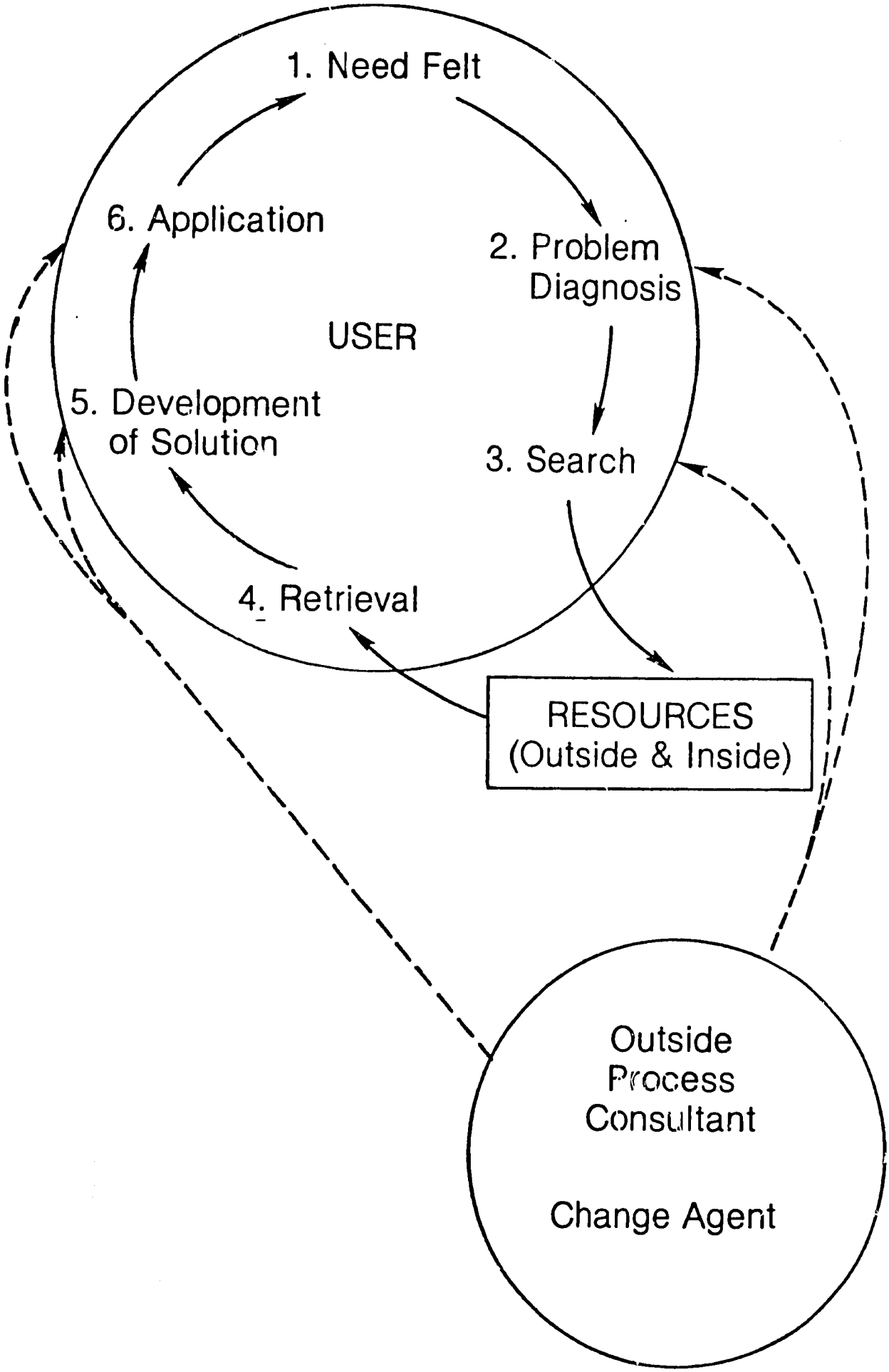


Figure 1. Problem Solver Model

Lattimore, 1987). As the engineering costs have been recovered, the price of cameras/recorders has been significantly reduced making possible widespread use of video technology in the field. Microwave relay via satellite also makes live broadcasting or interactive worldwide telecasting possible.

The Water Management Synthesis Project has used videotape for the past five years primarily to do the following tasks:

1. Project Description--prepared videotapes to describe/illustrate a project or activity within a project. This performs a public relations purpose, as well as giving an overview of what is available from the project to various audiences.

2. Training Packages--How-to-do-it tapes have been prepared on such subjects as measuring water conveyance loss in a field channel of an irrigation system to how-to organize farmers in a system around water control. Some tapes have been translated into the predominant language of the area.

   In addition, videotapes that illustrate concepts have been produced for use in workshops and training activities. For example, a videotape on interdisciplinary teamwork is used at the beginning of an applied irrigation evaluation workshop.

3. Simulated Case Studies--videotape is a natural for showing someone who hasn't been to the site what the situation is like. In Nepal, for example, we prepared a videotape on an irrigation system that USAID plans to rehabilitate during the next five years. We showed the tape at an international conference on rehabilitation and betterment of irrigation systems. Scientists at the conference used the tape with study materials to design a plan for improving the system.

4. Historical Record of Meetings, Conferences--we have used videotape to record the first farmer organization meeting for a project in Egypt, to record openings of major workshops in Sri Lanka, Pakistan, and India, and to tape special sessions at international workshops.

5. Team Debriefings--interdisciplinary teams that have returned from the field often write reports that no one sees, but a short videotaped session can act almost as a focus group for looking at the issues/recommendations from a field team. The tape, when edited, can provide important information that is focused on key problems or issues that provide an alternative reporting method.

6. Field Reports--taped interviews with overseas personnel, as well as documentary tape of a project site, have been used to enhance field reports to funding agencies and faculty on campus. This provides a more personal feedback to the backstopping group and helps them provide better service and information for work in the field.

Potential Uses of Videotape

We have not used videotape enough. The potential for improving communication that will enhance technology transfer is almost unlimited.

For example, videotape could be used interactively in some irrigation systems to provide feedback (or feedforward) from the tail end of a watercourse to the canal managers in order to show the problems with getting water to the tail...to show the managers where the problems are occurring so information can be used to provide the proper operation and maintenance. The managers, on the other hand, could provide information that could be used by the farmer irrigation association for scheduling water delivery, for improving canal and field channels maintenance, or for other operational matters.

Another possible use of video would require a major commitment on the part of a donor or host government, but an interactive satellite uplink system could be used to have farmers, for example, show live on-camera shots of a diseased plant. A scientist could interact live with the farmer or extension agent in the host country to suggest ways to deal with the problem. Many universities already have the uplink capability (CSU does, for instance).

These are only two examples, but they illustrate the creative ways videotape can be used to improve communication for better transfer of agricultural practices.

Conclusion

To speed the development process, innovative ways of transferring technology must be used. The potential for using videotape to enhance that process is limited by our lack of foresight to include this into the agricultural projects we develop. It is limited by our failure to include the communication specialist in the interdisciplinary team of scientists looking at agricultural problems (King, 1984). It is limited by the reluctance of funding agencies to look beyond what has been done before in technology transfer. These limitations must be overcome in order to accelerate the "borrowing" process of the developing world that will ultimately create change in social systems and attitudes, knowledge and human skills, and physical implements.

REFERENCES

King, James, "University Agricultural Projects--Communications Problems and Prospects," ACE Quarterly, (Vol. 67, No.1, January-March, 1984), pp.19-24.

Lattimore, Dan, "Water Management: Problems and Potential for Communications in Technology Transfer," Chapter 17 in K.C. Nobe and R.K. Sampath, editors, Irrigation Management in Developing Countries: Current Issues and Approaches, (Boulder: Westview Press, 1986), pp. 509-534.

Shook, Fred and Dan Lattimore, The Broadcast News Process, 3rd Edition. (Denver: Morton Publishing Co., 1987).

Singh, Vidya N., Technology Transfer and Economic Development: Models for Developing Countries, (New Jersey: Unz and Co., 1983).

Technology and Tradition: Complementary or Contradictory Concepts?

Farhad Saba
San Diego State University

In this presentation I wish to clarify the relationship -or a set of relationships -between two concepts: *tradition* and *technology*. The literature of development conveys certain basic attitudes towards the relationship between these concepts, the understanding of which is essential for the success of what we do in developing countries.

First let me define these terms. ***Tradition***, as expressed by Nasr (1981), **is a set of enduring elements in a nation's conduct of life in relation to her immediate environment and the cosmos.** This conduct of life embodies social and cultural forms that are evident in the education of the youth, in the political and economic institutions, in the practice of art and science, and in the philosophy of life.

***"Technology*,"** as defined by John Kenneth Galbraith (1973), **"means the systematic application of scientific and other organized knowledge to practical tasks."** Applied in the field of educational technology, technology means the systematic application of scientific and other organized knowledge in solving practical problems in teaching and learning. This definition includes the application of hardware as well as processes that have comprised the field of educational technology.

The literature indicates that as technologists, or as development experts working in developing countries, we could have at least three predispositions about the relationships between the concepts of tradition and technology. These predispositions are as follows:

1- Technology is the outgrowth of progressive positivism and, as such , is intrinsically antithetical to the basic structure, beliefs and values of traditional societies. (The contradictory concept).

2- Technology should accommodate traditional beliefs, values and social structures. (The accommodating concept).

3- Technology and tradition are complimentary concepts, a manifestation of tradition is technology. (The complimentary concept).

Let me take a few minutes in analyzing each of these statements and their ramifications for us as educational technologists:

1- <u>Technology is the outgrowth of progressive positivism, and as such it is intrinsically antithetical to the basic structure, beliefs and values of traditional societies.</u>

This predisposition towards the relationship between tradition and technology was predominant in the 1960's and the early 1970's. Perhaps Rostow (1962) expressed it best by stating that the process of economic development is equal to the eradication of traditional thinking and behavior in a particular society. This view is problematic on at least two grounds:

First, on a practical basis, when technology and tradition are seen to be at odds with one another, a situation of conflict is automatically created between the developmental and the traditional institutions. The educational technologist is compelled to view traditional life as undesirable; on the other hand, traditional people feel compelled to defend themselves against the very people who are trying to help them.

Second, in this scenario traditional knowledge and wisdom that is often based on a holistic view of science and art is set aside, as is not brought into the mainstream of problem solving. Hence, the technologist as well as the traditionalist, engaged in an antagonistic relationship, deny themselves the use of traditional knowledge that may very well be the source of appropriate solutions to the pending problems.

2- Technology should accommodate traditional beliefs, values and social structure.

This view emerged during the troublesome 1970's , perhaps as a response to the political events related to the war in Vietnam and the Watergate experience. As summarized by Randall and Theobald (1985), this view holds that modernization may accommodate and perpetuate traditional beliefs and institutions in a society. Translated to a prescriptive principle, one may say that the role of the technologist is to accommodate technological procedures with societal traditions of a developing country.

This view is also problematic on two grounds: one related to the concept of technology, and the other to the concept of tradition.

Accommodation always requires compromise; if technologists accommodate technological concepts, policies and procedures to traditional beliefs, they may run the risk of modifying their craft to the point that they bear little or no resemblance to their original form. In this situation, the question is how much one should compromise one's principles. Compromising technological standards with traditional beliefs becomes even more complicated when one realizes that even within a particular society tradition is not a monolithic concept.

During the past four hundred years, many traditional cultures of the world went through a process of decline in their contribution to arts and sciences. Therefore, when we look at traditional societies, a continuum is observed which runs from original tradition at one end to decadent tradition at the other. There are also all the other shades of traditional beliefs, values, and practices in between.

Complication arise when the technologist has to select a specific section of this spectrum for compromising his/her principles. Which section of the society, which group of people, or which branch of ideas are more acceptable? Let's examine the attributes of original tradition, and decadent tradition to shed some light on the predicament of the technologist. The attributes of original tradition are:

- it is based on a sense of the sacred,
- it is based on ethical and aesthetic values,
- it has a holistic view of knowledge (subjective and objective),
- it recognizes two approaches to the attainment of knowledge (intuitive and analytical),
- it perceives the knower and the knowledge as indivisible,
- it partially manifest itself in science, art and technology,
- it is democratic and non-dogmatic.

The attributes of decadent tradition are:

- it is based on fundamental religiosity,
- it is prejudiced in outlook and lacks moral ethics,
- it is superstitious and lacks a valid approach to the attainment of knowledge,
- it is ignorant of true knowledge and manifests itself in formal demagoguery,
- it is dogmatic and non-democratic.

Accommodating technology to any of these two traditional forms, as well as the shades in between them, is counterproductive, and even harmful both for a traditional society and for the field of educational technology. There could be little argument as to why we should not accommodate decadent tradition. In fact, one could hypothesize that those developmental theorists who perceived technology and tradition to be at odds were referring to the incompatibility of technology with decadent tradition. In some developing countries, there are times when decadent tradition is so overwhelmingly followed, that it is difficult for an untrained eye to find the few individuals who still adhere to original tradition.

It is perhaps equally counterproductive and harmful for the educational technologist to merely accommodate technological concepts, policies and procedures to original tradition. This only entails a passive acceptance of new technologies by the people of developing countries and a passive tolerance of tradition by the educational technologist.

In the past few years, because of several political events in the United States, many technological advocates overseas have tried only to accommodate technologies to traditional societies. They, at worst, have compromised their technologies to the point of no recognition, or at best, have failed to elicit the active participation of indigenous scientists, writers, and artists in the development of new technologies. For such reasons, the concept of appropriate technology, and other similar concepts that advocate technological compromise are potentially harmful to the field of educational technology and to the people of those countries that are trying to pass through the difficult path of development.

3- Technology and tradition are complimentary concepts: a manifestation of tradition is technology.

Historically, traditional societies have been technological ones. The fact that traditional societies have enjoyed a long history of technology has been documented by Needham (1981) and Nakayama (1984) who studied China and Japan, and al-Hassan and Hill (1986) who studied the Islamic contributions to science and technology. Recognizing the contributions of traditional societies to science and technology is a productive predisposition both for the educational technologist and for the people of developing countries. It enables the educational technologist to develop a dynamic relationship between the concepts, procedures and policies of educational communications and technology and the original tradition's structures, beliefs and values of a developing country. This outlook is more helpful for educational technologists to elicit the active participation of their counterparts in a developing country in their search for *new* technologies. The key word here is new, since from this vantage point accommodation, modification and adaptation or transfer of technology is not desirable.

This perspective should facilitate a two-way flow of knowledge, information and technology, rather than a one-way flow or a mere transfer. It provides for joint research and development efforts between scientists, technologists, and authors of donor countries and their counter parts in developing countries to take a fresh look at educational problems of a country and to devise practical solutions to those problems.

Given the complexities of international cooperative efforts in science and technology, it is not easy to propose, initiate and fund bilateral or multilateral research and development efforts from the point of view presented here. There are, however, hopeful signs:

First, there is new interest in the concept of tradition in the West. As Pelikan (1984) suggested "... humanistic scholarship in various fields has been rediscovering 'Tradition.' The rediscovery involves the concept of tradition itself as a category and method of research, as well as the content of various specific traditions." (p. 5).

Second, there is a new interest among the scientific community in the concept of universe as expressed by the cultures of the Far East and the Middle East. Capra (1982) indicated that "In the twentieth century ... physics has gone through several conceptual revolutions that clearly reveal the limitations of the mechanistic world view and lead to an organic, ecological view of the world which shows great similarities to the views of mystics of all ages and traditions." (p. 47).

These developments may in fact open the door to more scientific and technological cooperation between the East and the West. The mechanistic view of the world separated mind and matter, body and soul and the subjective and the objective. This reductionist view, known as the Cartesian paradigm, was alien to the Eastern cosmology; and one may hypothesize that the decline of the East since the Seventeenth Century, is partially due to the refusal of Eastern thinkers to accept the

mechanistic view of the world. Technological growth of the West based on the mechanistic view of the universe gathered such a momentum in the past three hundred years, that it left the Eastern intellectuals in amazement, but also disbarred them from active participation in scientific development.

Now we have come a full circle to accept, once again, a more holistic view of nature, one that acknowledges the sacredness of earth and the importance of ethical and aesthetic values in it's survival, as well as the value of technology for mass production of goods and services (Augros & Stanciu 1984, Berman 1984). I believe that this view is more congruent to the Eastern mind and eventually will open the door for more intellectual, cultural, scientific and technological cooperation. It may also diminish the political mistrust between the two "cultures" since both are traditional in origin, and both acknowledge the sacredness of knowledge.

REFERENCES

Alavi, H. & Shanin T. (1982). Introduction to the sociology of "developing countries". New York: Monthly Review Press.

al-Hassan, A. Y. & Hill, D. R. (1986). Islamic Technology. Cambridge: Cambridge University Press.

Augros, R. M. & Stanciu, G. N. (1984). The new story of science. Bantam Books: New York.

Berger, P. L. (1977). Facing up to modernity: Excursions in society, politics, and religion. New York: Basic Book.

Berman, M. (1984). The Reenchantment of the world. Bantam Books: New York.

Capra, F. (1982). The turning point. Simon and Schuster: New York.

Esposito, J. (1980). Islam and development. Syracuse: Syracuse University Press.

Galbraith, J. K. (1973). Economics and the public purpose. New York: Mentor.

Hermassi, E. (1980). The third world reassessed. Berkeley: University of California Press.

Lehman, D. (Ed.). (1979). Development theory: Four critical studies. Totowa, New Jersey: Frank Cass.

Nakayama, S., (1984). Academic and scientific traditions in China, Japan, and the west. Tokyo: University of Tokyo Press.

Nasr, S. H. (1981). Knowledge and the sacred. New York: Crossroad.

Needham, J. (1981). Science in traditional China. Cambridge, MA: Harvard University Press.

Pelikan, J. (1984). The vindication of tradition. New Haven, CT: Yale University Press.

Randall V., & Theobald R., (1985). Political change and underdevelopment. Durham, North Carolina: Duke University Press.

Rostow, W. (1962). The stages of economic growth: A non-communist manifesto. Cambridge: Cambridge University Press.

Schramm, W. & Lerner, D. (Eds.) (1976). Communication and change: The past ten years - and the next. Honolulu: The University Press of Hawaii.

Silber, K., et al. (1979). Educational technology: Definition and Glossary of terms, Vol. I. Washington D.C.: AECT.

NEEDS AND APPROPRIATE LEVELS OF TECHNOLOGY IN AFRICA

Charles Kanyarusoke, Ph.D.
Indiana University of Pennsylvania
Department of Communications Media
121 Stouffer Hall, Indiana, PA 15705

Last February, I had occasion to share the findings of a needs assessment study at the annual convention of the Association for Educational Communications and Technology in Atlanta, Georgia. The study focused on poverty, hunger and disease in Africa and the potential role of educational technology in eradicating these maladies. My contention was, and still remains, that poverty, hunger and disease are directly attributable to ignorance and that by eradicating ignorance, poverty, hunger and disease would cease to be.

METHODOLOGY

A fifty item needs assessment instrument was designed to identify areas in which african countries needed educational technology to alleviate some of their problems related to socioeconomic and educational welfare. The various possible areas of need were generated by the researcher, with the help of african students enrolled at Miami University.

The instrument was sent to 27 randomly selected african embassies. The education or cultural attache at each embassy was requested to rate the importance of each need in his/her country on a scale of 1 to 5, with one indicating no importance and five the greatest importance. 25 of the 27 instruments sent were returned.

Items receiving a mean score of 4 (VERY IMPORTANT) and above were selected and reported. Such items identified the following needs:

- animal power for farming
- growing hay for feeding livestock
- water conservation programs
- food preservation programs
- water purification programs
- crop irrigation programs
- raising animals for cash
- fish and poultry raising
- small plot farming practices
- identification of new cash crops
- research into high yield crop varieties
- basic literacy programs
- educational radio programming for rural areas
- alternative power (locally available) for radios
- alternative ways to deliver education
- scholarships to study educational technology
- computer literacy at secondary level
- technological literacy for teachers

Eleven of the areas of need listed, or 61%, are very relevant to this gathering because they are agriculture related. Allow me to highlight some of them.

ANIMAL POWER FOR FARMING

The individually owned farm in Africa is not as large as the extensive farmlands of Iowa or Kansas. Crop fields over 500 hectares are more an exception than the rule. In Africa, one finds fields ranging from one twentieth of a hectare to 40 hectares in general and, in some exceptional cases, triple digit hectareage.

Most of these crop fields rely on primitive technology and human power, with the hand held hoe as the main implement. One could do better with an ox-drawn plow as it would enable one to manage slightly increased hectareage and, hopefully, raise more crops. The need to educate the people in training and using animal power for farm mechanization is real.

GROWING HAY FOR FEEDING LIVESTOCK

Africa has two main seasons: the rainy season and the dry season. During the rainy season, the land is lush and green and pasture is plentiful. When the dry season comes, however, the land dries up, the green grass dies and so do the animals.

It is a shame for a land that has some of the world's greatest grasslands to lack fodder for animals during the dry season. There is a need, therefore, for the people to learn how to grow, harvest and store hay for feeding their livestock during the dry months.

The concept of zero grazing or feeding livestock in situ is appropriate here. An african herd of cattle spends more time on the move looking for grass to eat than time spent actually eating. The result is stringy, pocket-size animals whose meat requires two hours to cook. Needless to say, such animals have a poor market value. Zero grazing is a technology that the african livestock farmer should learn.

WATER CONSERVATION

During the rainy season, some areas of Africa may receive enough rainfall in one day to sustain their crops for a whole year, if only the water could be stored. Water, of course, is not only needed for crops but for livestock and people. Sometimes the dry season extends into a long period of drought which many plants and animals cannot survive. Ironically, some of the world's largest rivers and inland water bodies like the Nile, the Congo, the Niger, the Zambesi and even Lake Victoria are in Africa.

Year round crop husbandry could be possible if a means of bringing water to the crops were devised. There is a need, therefore, for programs to teach water conservation and crop irrigation practices.

SMALL PLOT FARMING

Small plot farming is a practice forced on the african by the traditional land tenure system. A piece of land that has been in the family for

generations is shared amongst the children of each generation. The result is a proliferation of ever diminishing plots of land.

For lack of a better term, I shall call the farming practice of these tiny plots "SPLY" (small-plot-low-yield) agriculture, as opposed to the ideal in such a situation which would be intensive crop husbandry practice. There is a great need for the african farmer to learn methods of maximizing the input to output ratio on such plots, which keep getting smaller as the population and demand for food grow larger.

HIGH YIELD VARIETIES

There is room and a great need for research into high yielding crop varieties. This would be one way of making the small plots referred to earlier more productive. Most african universities have departments, even schools of agriculture. The infrastructure for scientific research already exists. If more research activity were oriented toward crop genetics, we could soon see a revolution.

IDENTIFICATION OF NEW CASH CROPS

Agriculture is the backbone of most african economies. Africa will remain unindustrialized well into the next century. It is imperative, therefore, that the production of crops that sell for cash overseas be stepped up. It is also necessary for research to begin into alternative cash crops.

FOOD PRESERVATION

The average african spends most of the year in activities directly related to food production. The concept of vacation is non-existent in many african cultures. Despite all this effort into providing food, Africa still experiences periods of severe, devastating famine!

Africans are not, and have never been, lazy. However, due to ignorance, a lot of food goes to waste. Wastage starts at harvest time with poor harvesting practices and continues through poor storage and improper preservation. Some foods are not storable due to lack of proper preservation technologies. Drying food for storage is a practice born of long tradition, but it sometimes does not work reliably as nature cannot be controlled. Insect pests are another common danger to food in storage. Preservation of food for use during times of food scarcity is an area of need that demands immediate attention.

CASH ORIENTED ANIMAL HUSBANDRY

Africans are not really as poor as the developed world tends to think. Visualize, if you will, an african herdsman like the Maasai of Kenya or the Fulani of Nigeria. The man owns as many as 200 head of cattle. He lives in a tiny, makeshift hut, his children are scantily clad in tattered rags and none of the children go to school. Is this really a poor family? Certainly not. They look poor, live poorly and act as if they were deprived. They are sitting on a gold mine of 200 animals!

Traditionally, livestock serves as everything but a source of income. It gives a man status among his peers, it is used to pay for wives and, in the

sad event of an animal being seriously ill, it may be used as food. There is a need to persuade the traditional african herdsman to look at his herd as a source of income.

Malnutrition accounts highly for Africa's infant mortality rate. The raising of fish in village owned ponds could be one way of ensuring a good source of badly needed protein. Poultry raising on a small, family scale is another possible way of providing protein in the diet. Needless to say, there is a whole area of need to educate mothers to grow, plan and prepare balanced and well nourishing food for their families.

WHAT IS THE ANSWER?

The areas of need highlighted hereinabove point to the need for educating the masses. They require the introduction of well conceived programs that will attack ignorance at the grassroots level. Such programs demand a lot of expertise, most of which is lacking in Africa. They also demand the commitment of millions of dollars and perhaps the foregoing of some other important venture like armaments. Above all, it is absolutely important that the host country be fully involved at all stages. For the educational technologist, this is where the action is. There is great opportunity for translating theory into practice and the application of technology to solving practical problems of training.

One could sit at Purdue University or at the University of Nebraska and easily say and rightly so that Africa's agriculture related problems can be solved by applied technology. Various donor agencies and other foreign parties with vested interests in Africa may want to participate in agricultural projects of great magnitude. Such projects that rely heavily on foreign injection of money, technical know-how, consumable materials, hardware and software are not helping at all. It is my humble observation that such projects are operated at levels of technology far beyond the appropriate levels for Africa today. Their failure is blamed on the african people.

LEVELS OF TECHNOLOGY

My hierarchical categorization of technology is based on level of expertise needed to design, test and implement a specific project; the amount of capital outlay needed for research and development; the extent to which the host country has to go into debt in order to finance the project; the continued presence or lack thereof of foreign experts and the availability of materials, hardware and software. Three distinct levels of technology have been identified based on the above factors.

HIGH TECHNOLOGY LEVEL

- expertise not possessed by local nationals
- budget greater than country's education budget
- capital outlay in excess of $5,000,000
- borrowing of funds from lending agencies
- importation of consumable materials
- importation of software and/or hardware
- continued presence of foreign experts to run project

INTERMEDIATE TECHNOLOGY LEVEL

- expertise possessed by some local nationals
- budget about one half of country's education budget
- capital outlay up to $5,000,000
- little or no borrowing of funds from lending agencies
- little or no importation of consumable materials
- minimal importation of software and/or hardware
- totally run and managed by local nationals

LOW TECHNOLOGY LEVEL

- expertise possessed by local nationals
- budget about one quarter of country's education budget
- capital outlay up to $1,000,000
- no borrowing of funds from lending agencies
- no importation of consumable materials
- very minimal or no importation of hardware and/or software
- totally run and managed by local nationals

The availability of experts for the research and development stages of any innovative project, also for the supervision of operational procedures after the project is launched, is a crucial factor in determining levels of technology. Foreign experts cost money and Africa does not have such money. Furthermore, they are not african which starts them off with a handicap. Hard as they may try, they may never stay in Africa long enough to comprehend the various sociocultural and socioeconomic forces that govern the course of events in everyday african life.

Despite the fact that at least 40% of Africa's school age population never attends school, the largest expenditure for most countries in Africa goes to education. The amount of money spent on an innovative project, therefore, is well measured against a country's annual education budget. Education is investment in a country's young people to ensure an educated population tomorrow. Any project that takes money away from education is suicidal and a bad risk.

The need to borrow funds to finance a project is another important factor in determining the level of technology. Africa cannot afford developmental projects that will put her at the mercy of lending or even donor agencies. Projects that shake the national economy and create more problems than they were meant to solve should be avoided. Africa should learn from practical examples of ambitious projects on the continent that have become white elephants.

Africa should steer clear of projects that require continued massive importation of consumable materials, equipment and software. Every effort should be taken, at this stage of development, to limit the outflow of hard-earned foreign currency. Exhaustive efforts should be made to locate and use locally available resources, thus limiting the amount to be imported.

LEVELS OF AGRICULTURAL MECHANIZATION

The levels of technology identified above become real when applied to the following hypothetical scenarios. Let us suppose that a need for increased maize output has been assessed for region X of country Y in Africa. Obviously, the ideal approach would be using the leading maize genetics research experts (from anywhere in the world) to develop a high yielding maize variety. The best experts at soil analysis would be obtained, no expense spared, to study and analyze the soils in region X to determine the best mix of nutrients and other soil treatment technologies required. The land would be prepared using powerful tractors so as to expedite its preparation with minimal delay. An intricate irrigation system would be designed, installed and programmed to automatically kick in when the soil moisture content is sensed to be below a predetermined level. Specialized equipment would be used to apply fertilizer. The field would be seeded using specialized equipment that does the job with incredible efficiency. Special chemicals for weed control would be sprayed using specialized spraying equipment. The crop would be swiftly harvested using a combine that unhusks and separates the kernels in one operation. Elaborate storage systems would be constructed to house the maize which is treated against pest attacks. This is not a farfetched scenario, certainly not to this gathering, as it is the order of the day (or close to it) in the corn belt of the United States. Transferred to an african setting, this would fall under the high technology level of agricultural mechanization.

The problem could be approached at a lower level of technology. Agricultural researchers at one of the country's universities, with the help of one foreign maize genetics expert if needed, would develop the high yielding variety. Locally available soil chemists would be used to analyze the soil in region X to determine what is needed to make it suitable for producing maize. A reliable farm tractor would be the center of all other activities. Plows would be attached for preparing the land. Irrigation ditches would be dug crisscrossing the area and a source of water would be established at a nearby stream. A simple, diesel-powered pump or one driven by a tractor would be installed at the water source. Water would be pumped to the irrigation ditches only when needed. A manure spreader would be attached to spread manure or other fertilizer. A seed drill would be attached to plant the seeds in neat rows, the correct distance apart and between rows. Herbicides would be sprayed from a sprayer attached to the tractor. A simple attachment to the tractor would harvest the corn. A simple, tractor-driven thresher would be used to separate the kernels from the husks. The grain would be stored in granaries and manually treated against pest attack. This scenario relies on local expertise for research and development and farm working equipment easily affordable within the country's budget. It is an intermediate technology level of agricultural mechanization.

Coming down to earth, research and development of a high yielding maize variety would be done by students and professors at one of the country's universities or at a university in a neighboring country. The land would be prepared using ox-drawn implements or simple tine tillers. Ordinary compost and livestock effluvia would be spread on the field using ox-drawn implements. Having located a nearby stream, an ox-driven, locally smithed water wheel would supply water for irrigation. Ox-drawn seed drills would be used to plant the seeds. Dry grass mulch would be laid neatly between

rows to keep weed growth under control. The harvesting could be expedited using human power that is so abundant in Africa. An ox-driven thresher would be used to separate the kernels from the husks. The grain would be manually treated to resist pest attack and stored in locally constructed granaries. This scenario may seem crude, but it still is years ahead of the current hand held hoe technology in terms of efficiency. It is a low technology level of agricultural mechanization.

APPROPRIATE LEVELS OF TECHNOLOGY FOR AFRICA

Africa's problems of ignorance, poverty, hunger and disease must be tackled with africans at the forefront. Africans must provide the capital, the manpower and the raw materials. Reliance on foreign expertise, heavy borrowing from international lending agencies and wholesale importation of consumable materials must be kept at a minimum. Benevolent aid from foreign donors should not be regarded as a long term answer.

Africans must realize, above all, that one must learn to walk before one can run. Africa is at the crawling stage of technological development. She needs to start taking her first steps, slowly but steadily, beginning at the low technology level. This is not an endorsement of the perpetuation of primitive, inefficient technologies, but rather a strong recommendation that Africa stick to the basics in order to build a firm foundation that will launch her into the technological world of tomorrow.

IMPLEMENTING COMMUNICATION IN AGRICULTURAL DEVELOPMENT PROJECTS: IDENTIFYING TO DOABLE PARTS OF THE BIG PICTURE

by

Theodore Hutchcroft*

Development projects bring together a variety of technical and managerial skills, including communication. The premise of this paper is that communication is an integral part of agricultural development. Whether the thrust of a project is on institution building, technology transfer, or to erect infrastructure, communication is an inherent part of the process. Nearly every development project depends on communication for its successful operation and for much of its output regardless of whether or not persons with communication knowledge and ability are specified in the project proposal.

This session is devoted to "communication in development" rather than "communication and development". Not only are there technologies and methods of communication, but more important there are concepts that bring these together as useful contributions to the development process. In short, communication is a "given" in development. It is the catalyst that enables the other elements of the project to more nearly accomplish their goals.

The setting for most of my remarks is in Asia, though nearly all of them come from similar experiences in Latin America and the Caribbean, and in Africa. With few exceptions, the geography is not relevant. I have been asked to report on the communications aspects of Winrock's institution building project with the national agricultural research system in Bangladesh, so this paper concentrates on science communication and organizational communication. This is a USAID-funded project to strengthen the Bangladesh Agricultural Research Council (BARC) as the apex body in that system, thus seeking to improve the quality of research produced by the country. It is quite likely that the accomplishment of this goal depends more on the improvement of management and administrative skills than upon additional technology, and that communication has been one of the most important of these tools.

For three years beginning early in 1983, my responsibility was to provide the communication input for that project. I was part of a technical assistance team that at one time numbered 23 persons. While I was the only one with communication in my job title, communication was a substantial part of the work of each of my colleagues.

I arrived in Dhaka believing that communication was important to BARC to accomplishing its institutional goals. My challenge was to help the council

---

*Program Officer/Publications
Winrock International Institute for Agricultural Development,
Morrilton, Arkansas, U.S.A.

leadership understand how communication could serve them, and then to assist in demonstrating this process. The BARC project was to improve the research system; it was not involved in technology transfer by extension as this was a responsibility of an FAO project.

Communication in an agricultural development project can come about at three levels: (1) in research communication, which is the creation and sharing of information, (2) in organizational communication, which is to make the research institution function, and (3) in communication with the home office of the project contractor as well as with funding agency representatives.

It is at this point that I want to call attention to Byrnes Law of international technical assistanceship, which is that "Upon arrival you are asked to do something quite different in substance or duration than what you expected to be doing."[1]

The expatriate communication specialist must quickly develop a plan of work that identifies the actual expectations of his assignment. This may or may not correspond with the terms of reference stated in the letter of employment; Byrnes Law says probably not. I had expected to be advising; I ended up doing. Preparing a long-term plan of work calls for getting acquainted with the leadership of the host agency and determining their expectations for the communication function. The assignment was to work with the Chairman of BARC, providing some strength to integrating communication into the council's activities. This exchange of views with the organizational leaders can be the first step toward helping set the standard for the flow of information materials by and about the research institution.

For most members of the technical assistance team, the project is being carried out in a second culture, that is, a culture to which they are not native. This presents a wide range of communication challenges, in addition to learning to use the local language. A high percentage of the failure in development projects is the result of inept communication by the personnel in the field and also those providing backstopping support.

At another level of management there is the communication issue of the project contract. It probably is written in English, so may well be in the second language for the host country. There must be effective understanding by all parties as to what the document really means, and how the various provisions will be implemented. Frequently there are cultural misunderstandings as to the value to be placed on a signed document. Implementing and interpreting this basic project document is the most difficult problem the donors, field staff, host country officers, and home office coordinators will have.

The communication specialist will want to learn about the media environment of the host country, as well as about the structures of the institution within which he is operating. The first weeks of an assignment can be usefully spent getting acquainted with editors, writers, broadcasters, government information personnel, and others who are a part of the communication network of the country.

In these many sessions, the communicator should listen for needs to which he can respond, especially those for which there is some unanimity and can be

quickly accomplished. In Bangladesh there was a need for a newsletter -- that's what the top officials of BARC said. Creating a newsletter was a prompt response to their direction. It fit well into the communication goal of strengthening BARC's leadership and improving the research capability of the national system. Furthermore, it provided quick identification for the communication work, and also for the technical assistance project. The newsletter carried BARC's message directly to the 1,600 researchers, managers, and technicians of the research system who are employees of a dozen agricultural research institutions, plus another dozen organizations involved in agricultural research in lesser ways. The plan was to send a personal copy of the newsletter to each of those staff members to provide them with information to do better at their jobs.[2]

This was not without its difficulties, as has been described in another paper for this Conference.[3] Nonetheless, it was a highly visible channel for BARC to establish itself with the research personnel as the leadership, coordination agency of the national system.

The communication program for BARC centered on a series of events, each of which contributed to building the council's reputation as a national research agency that was effectively contributing to Bangladesh's food goals. These events were to help achieve BARC's long-term goals, not just to bring people together to hear speeches and present technical papers. Each one was a key element in carrying out the communication plan.

The year 1983 was the tenth anniversary of the establishment of BARC. This was an opportunity to call public attention to the progress in agricultural research since the liberation in 1971, and to BARC's leadership of it. The tenth anniversary activities were among the first important stories carried in the newsletter. This gave BARC a means of direct involvement of researchers in anniversary activities, thus not having to depend on official channels.

The premier event was the first National Symposium on Agricultural Research, held at the BARC headquarters. The theme of the two-day affair was "Ten Years of Agricultural Research in Bangladesh". It brought together some 300 researchers from throughout the country representing dozens of disciplines -- the first time for such a gathering. The researchers presented papers on their work, and several senior agricultural leaders (both current and former) prepared major addresses on the evolution and issues of agricultural research in the country. In retrospect, there were too many things going on in such a short time, but it did achieve its aims.

An event of this magnitude requires considerable staff time and direction. The expatriate specialist, almost by default, became the general secretary and principal coordinator. While this was a useful contribution by the technical assistance project, it was not an effective training exercise for national personnel.

Two major publications were a part of the anniversary plan. The first, Agricultural Research in Bangladesh: Contributing to National Development was officially introduced at the Symposium.[4] It is a compendium of 25 articles by Bangladeshi scientists, organized by crops, commodities, and disciplines or topics. The color photography was by nationals. It is well-designed and beautifully printed. It was the only book of its kind in south Asia and

quickly gained new recognition for BARC due to wide distribution to others in the international agricultural research network. It is being translated into the national language, Bengali, for wider use by extension and other agricultural service personnel. The book also had a major effect that was entirely unexpected, for personnel of the research system were not included in the intended audience. The book's quality was a significant morale-builder for Bangladeshi researchers who have a tendency to think of themselves as second-class citizens. They were surprised and pleased to see their work presented in such a prestigious manner.

The second book was the proceedings of the Symposium, which got its title from the theme. It was over two years in production, for a number of reasons too numerous to recount in this paper. Because of these delays it lost much of its potential value and promotional impact. It contains 11 keynote papers, 110 abstracts of technical papers, the inaugural talks, photographs of the Symposium, and assorted appendix items. It was produced entirely in Bangladesh. Even with the delays it met the objective of providing a quality publication about Bangladesh agricultural research. It was widely distributed to give recognition to the authors and also to gain the broadest possible involvement of the entire research system.[5]

The communication program of BARC did not rely much on the traditional information services of news releases, photographs, audio-visuals, and so forth. The few news releases issued by BARC were handled through the Chairman's office by one of his personal assistants. And, as there was no centralized publication policy, many BARC divisions issued booklets, monographs, and other printed materials on their own authority.

These are some of the other communication activities, each fitting into the council's plan, that were administered through the technical, assistance project.

A revision of the publication This is BARC had been drafted by a short-term consultant prior to the arrival of the expatriate specialist. The first in this series was written soon after BARC was established in 1973. The third edition was produced ten years later to describe the council, its work, and its resources, as well as a report on the mandates, facilities, and personnel of the research institutes under the BARC umbrella. It is the general information publication on the national research system. A fourth edition is now being prepared, again drafted by a Winrock consultant.[6]

A principal activity of the technical assistance project in 1983 and 1984 was to aid BARC in preparing a national agricultural research plan for 1984-1989 as part of the country's Third Five Year Plan. Experienced research managers were brought from the Philippines and the United States to consult on its development. Communication was involved not only in printing the document, but more significantly by writing large sections of the text and guiding the format for presenting the recommendations. This project was a good example of the communication specialist serving as a management and organization advisor first and then secondly as a communication production specialist.[7]

Two international workshops on agricultural research management were conducted jointly by BARC, International Service for National Agricultural Research (ISNAR), and Winrock International. The first was on program

evaluation (in October 1984) and the second was on management of human resources (in March 1986). There were participants from neighboring countries as well as from within the Bangladesh research system. The expatriate communicator was Winrock's representative, who thus became the general secretary for planning and conducting the events.

A book was developed from each of the workshops. They were designed as follow-up for those attending the sessions, as well as to share the information with the many other persons who had an interest and need to know more about the topics. These were planned and produced with short publication schedules. As these were international meetings, the books could be printed out-of-country. This expedited their production, including the international distribution which was handled directly by the printing firm. By way of evaluation, these books have become established as practical references for agricultural research management in south Asia.[8]

The success of the tenth anniversary Symposium led to this becoming an every-other-year series. The second, in February 1986, had a sharper theme focus, "Food and Nutrition, Energy, and Employment." The concept was that these issues had not received high priority in the research system, but they were of increasing importance and multidisciplinary in nature. It was hoped the scientists would come to look at their research with a view to its use rather than only along discipline lines. For example, forestry research could be included in any of the three sub-topics depending on whether its purpose was to use trees for food, to produce fuel, or to create employment. This was not clearly understood by most researchers, so in that sense the Symposium did not achieve its goal. On the other hand, it was a significant attempt by BARC to motivate researchers to think seriously along multidisciplinary lines. Hopefully there will be other attempts to encourage this concept, possibly in the next Symposium.

A book of proceedings was planned as an integral part of the Symposium project. It was to be a record of the presentations, thus making the information much more widely available than would otherwise have been possible with only individual participation.

Several examples have been given of the benefits of the multiplier factor of publications. Information gathered for major research meetings should be made available to the vast majority of persons who are unable to attend. Many conferences and workshops turn out to be almost worthless because the information presented is restricted to those physically present at the sessions. A key part of the meeting plan should deal with communicating this valuable information to the persons who cannot attend but have a need-to-know.

This leads into that element of the communication plan which dealt with libraries, documentation, and scientific journals. Libraries are a significant research information dissemination point in developing countries such as Bangladesh.

Each agricultural research institute in Bangladesh has a library. As the institutes are autonomous entities, so, too, their libraries are independent units. One of the ways in which BARC can provide useful leadership and support to the research system is improving the library and documentation services. The technical assistance project procured photocopy equipment for several libraries, as well as subscribing to dozens of professional and

technical journals for the libraries. A computerized cataloging system was initiated in an effort to break the libraries out of their traditional function as storehouses rather than circulators of information. There were project funds for in-service workshops for all the agricultural research librarians, as well as for selected librarians to study in the United States. Funds also were used to stock the library for the new Institute for Postgraduate Studies in Agriculture.

The research process in developing countries suffers from a lack of information. This is a primary constraint to increasing the effectiveness of scientists. To begin, they are handicapped by the lack of research literature available as they initiate their projects. They usually do not have access to the latest information relating to the experimentation, whether it be in their own country or elsewhere in the world, which contributes to the apparently high level of duplication of research in developing countries. The libraries must be bolstered so they can collect the references and journals that researchers must have, and supplement these with computer access to the major databases of the world. It is now possible to use this technology in many Third World countries. It is needed to make effective use of the vast investments made in the national research systems by the individual countries as well as donor agencies.

There are other constraints in the research communication process, and some of these are the responsibility of the scientists. There is a lack of good reporting of research results. Many reports are late, thus losing much of their value. They often are poorly written, so difficult to comprehend. The reports receive inadequate distribution. Frequently, the only copies are filed away, and so lost for most purposes. Very little research is published in any kind of journal.

Many scientists lack the ability to effectively read, write, and comprehend English. Universities in developed countries must take some responsibility for this deficiency. Students for whom English is a second language receive advanced degrees because they are allowed lower standards of language comprehension than the regular norm. While this may be done with the most noble of motivations, it can shortchange the student, his country, and the donor of the scholarship. There is no question that English is a difficult language to grasp, but students who do not master it during their academic training are unlikely to pursue it when they return home. Once in their new posts, they have little motivation to study the second language; in fact, in that environment they may be among the more proficient speakers.

The point is that scientists with a limited command of English are handicapped in either learning from or contributing to the world body of agricultural science literature. No country can afford such isolation.

The libraries have many problems in trying to serve researchers, such as maintaining the needed collections of serials. This is often the only access a researcher has to journals of his discipline, even those published in his own country. Most of these are international, so must be imported at high cost. That requires foreign exchange, which usually is in short supply. Shipping is slow, often taking six months to a year for delivery by regular mail. There is a high loss factor, often running at 40% or more. Subscription fulfillment under such conditions is a headache for publishers as well as for the librarians, and in most cases neither is responsible for the losses.

Significant first steps were taken to improve the quality of the Bangladesh journals serving the agricultural sciences. Surprisingly, there are more than 30 such journals published on a regular basis. Most are annuals, though a few are issued twice yearly. There were two or three quarterlies. A few of these were of good quality, others reflected that they were produced under severe handicaps. Some are published by research institutions while others are issued by professional and scientific societies. Only one, the Journal of Botany, is of sufficient quality to be included in international abstracting services. This means that when a Bangladeshi scientist wants to bring his research to the attention of the world community, he must do so in a foreign journal. Such a situation is common in Third World countries, and contributes to undermining the development of their research infrastructures.

Strengthening the national research journals is an important element in a communication plan for a national research system. Most research systems lack funds for adequate publication programs. The developing countries' research systems should support the societies and other scientific agencies in the publishing of their journals. One of the most satisfying activities of the Bangladesh assignment was to persuade BARC to encourage the agriculturally related journals. Of course, many of the journals wanted money, usually more than the funds BARC had available. Making these grants was contingent on the journal publishers and editors developing more effective statements of objectives and procedures for their publications.

This effort began with a one-week workshop for journal editors and managers, conducted by a consultant from the United States with many years of experience in journal management. The training course ranged from the handling of manuscripts through to relations with printers and then the distribution of the copies. Most of the participants, representing 17 journals, were working scientists who edit journals as a voluntary service. This was the first time they had received any training in how-to-edit-a-journal.[9]

The goal of a communication program should be to get information to the people who need it. The objective may be for awareness, or it may be for knowledge as a working tool as in research. Regardless of the original purpose, there is no greater waste of communication resources than publications that are never delivered to the intended audiences. In my opinion, the major weakness of the communication programs in most developing countries is in their distribution process. There are many reasons for this, many of them very logical. Research institutions -- like other agencies -- have limited funds for publications. By reducing the expenditure on each publication, a greater number of titles can be produced. Printing costs are high, and usually they are an out-of-pocket expense. Procurement officials lack skill and confidence in buying printing. Specifications for bids often are inadequate, so printers must provide quotations on projects that are fraught with unknowns. And, previously in this paper there was a review of the constraints that cultural values can place on the proprietorship of information; that may be the most limiting factor in the distribution process.

Research managers have the responsibility, through the communication plan, to adequately disseminate research information. This not only means printing the copies needed, but devising a workable plan to get them into the hands of the intended audience.

Distribution must be a part of the basic planning for all publications. Such decisions should be made at the start of a publication project, not after the copies are delivered by the printer. In Bangladesh, this usually meant a substantial increase in the original guesstimate about the size of the print order. Basically, copies should be made available to everyone in the network who can use the information -- including opinion leaders and decision makers.

A standard distribution plan is a useful tool in determining the print order. (Preparing it is a good way for a newcomer to learn about the agency, its leadership, its staff, and its clientele, too.) This plan becomes a guide for each new publication, being amended to fit the specific purposes of the individual publication. Variables can include the publication topic, the format (technical or popular), geographical interest, and cost of the publication, to cite but a few. The standard plan helps to assure that everyone who should receive the publication will receive a copy. Of course, the list must be reviewed at regular intervals to keep it up-to-date, for organizations and their audiences are constantly changing. Most master lists are a combination of individual names and addresses (such as the board of directors or the heads of major collaborating agencies) and the allocation of bulk supplies to departments or other groups.

Libraries are included in the master plan. A useful question to ask is: Where do we want this organization's publications to be available? Again, the answers will vary due to the interest in the topic. It seems best to err on the side of overdistribution rather than limiting access to the information. Researchers and other potential readers will not likely use a document when it is not readily available. As a beginning, place nearly all publications in every library in the national research system, for example. Next, consider other research libraries in the country, plus other information centers of major reference facilities. Third, look to research libraries in neighboring countries, then elsewhere in the world. For example, each of the land-grant universities' agricultural libraries should have a modest collection of agricultural books and journals from every Third World country, especially those where the United States is funding development projects. This is an added project cost, of course, but can be a significant contribution to development and global awareness education.

Libraries try to develop exchanges as a means of building their collections, but Third World countries often have difficulty keeping their end of such a bargain. A Bangladesh scientific journal of 64 pages published twice annually may not seem to be an equal trade for one from Britain, Australia, or the United States that is issued monthly and has twice as many pages. Commercial publishers have little interest in such an exchange, and society publishers rarely have the resources to subsidize many reciprocal agreements. Many research libraries handle publication distribution for their institutions so can negotiate exchanges.

There has been reference made to the hazards of postal distribution of publications. These exist whether the mailing is within developing countries or to other countries. Fortunately, there are new systems now in place that are an alternative to the postal service. Many Third World libraries are purchasing their books and journals through publications suppliers. These firms order the publications and take responsibility for clearing them through customs and delivering them to the purchasers. They receive a fee for this service, but many librarians are learning that it is less expensive than the

losses they have incurred because of poor postal deliveries. The suppliers are responsible for guaranteeing delivery. The burden of follow-up is with the suppliers rather than the library personnel.

On the distribution side, there are private delivery services that carry international mailing as bulk shipments to a regional center, then resort and send it on to the recipients in the various countries. The costs seem to be competitive with postal rates, the shipping losses are reduced, and there is a saving in staff time required for the tedious task of preparing international mailings.

The expatriate communication specialist should be integrated into the staff of the national agency he is assigned to assist. This provides the specialist with the necessary access to information about the organization and, to contacts needed to carry out the assignment, among a myriad of other needs. Even so, the expatriate remains an outsider no matter how successfully he is brought into the national group. Therein lies one of his advantages, for he can carefully use his position as an outsider to do some things that national staff cannot do. For example, the expatriate can often take the initiative or go around the bureaucracy to move ahead on a project. Working closely with national colleagues, he can use this advantage to aid their work, too. The expatriate often has resources at his disposal that are not generally available to national personnel. Office supplies are one of these, as is access to transportation. The expatriate often has access to discretionary funds that can be used to expedite certain activities. These are sensitive issues for they must be used for the technical assistance program, not for personal glorification. This can be a source of cultural miscommunication in some developing countries where access to funds is one of the perks of status, and tradition dictates these are supposed to be expended to advance oneself and one's friends.

As with any guest, the communication specialist should not overstay his welcome. This probably is between three and five years. The specialist needs time to get established in the assignment and to make useful contributions to his terms of reference and the general project objectives. After a while, however, the specialist becomes a part of the "establishment" he is assigned to change, so loses the impact of being an outsider. While the expatriate can continue to make a contribution, there comes a time when nationals should be trained and in place to carry out what were once the expatriate's responsibilities. Our assignments are to help the national systems develop their own capabilities; in this case, to plan and implement a communication program. These posts are not permanent placements for expatriates.

One of the most difficult aspects of the assignment can be to identify the technical assistance service with the national institution, rather than with the persons who are presently administering that system. The societies of most developing countries place great importance on the role of the individual in a position of authority. The top leaders and managers tend to gather around them large cadres of personnel who are more loyal to their personalities than to the institution. This is one reason that changes in agency administration can be so disruptive to international technical assistance programs. By providing an example of institutional loyalty, the technical assistance staff often can help soften the institutional dilemma that results from the inevitable management changeover.

But let the expatriate communicator beware. His skills can be in great demand by top governmental officials. Such assignments can be great for the ego, and often are a way of advancing project goals. But political leaders lose their power, and thus the influence of their staff members evaporates. If such communication support is required, the expatriate should focus on recruiting and training national personnel to take on these responsibilities.

Whenever possible, the expatriate communicator should get nationals to do the writing, to design the publications, to edit the articles for the agency. This seems very logical, even elementary, but the pressure to do-it-yourself can be strong. Expatriate communicators should take their pleasure and satisfaction from seeing others carry out the basic tasks.

The newly arrived expatriate communication specialist is the novice. It is a personal challenge to adjust to an entirely new way of living and working. One must learn about a different system of operation -- of thinking, management, personal and professional relationships, culture, standards, level of technology, to cite only a few. Many things about the new country will look familiar -- such as the automobiles and the large hotels. But most of the social traits and even economic practices have been adapted to the host society and are practiced in a way that is unfamiliar to you. This can lead to culture shock.

It may come as a shock to find that the concept of a technical assistance project -- such as you are now a part of -- is not an inherent part of the host country's culture. The project as well as the concept embodied in it are being imported, thus by definition can be controversial. The concepts that are the basis of agricultural science tend to be based on western, industrialized culture: such as accuracy, sharing results, intellectual honesty, service for the general good not personal gain. These often are confronted by cultural and even religious barriers. They affect the success of the technical assistance project.

One of the big plusses for U.S. development efforts is the universal use of English as the language of science. While this is generally accepted, it does not eliminate all controversy regarding how research and technology is communicated within a Third World country. The importance of English was mentioned. In developing countries there often are political, social, and religious conflicts between the use of English and the national language. There are good reasons for transferring technology into the national language so it can be more easily passed on to the end users, in this case the farmers. But researchers must be able to use English to be a part of the world system. This does not mean all scientists in all countries, but those researchers and national systems that are cut off from the world system by language barriers are consigned to second-rate status. This can be a very emotional issue, and one in which the expatriate communicator must work carefully with national colleagues to resolve for their maximum benefit. Indeed, it can be degrading to be unable to study in the national university because one does not know the foreign language in which the textbooks are printed. At the same time, it is also degrading to be deprived of access to the body of knowledge required for national progress because this information is not readily available in the national language.

The expatriate communication specialist must keep in mind that there are usually valid reasons "why things are done as they are" in a host country's

offices, government, businesses, and homes. If there is one bit of advice that can be passed along in this paper, it is for the expatriate not to introduce "instant change." Tradition is strong in Third World countries. For generations it has been an important stabilizing ingredient in life. For the most part, it has served the people well, often in ways which we have difficulty to recognize, understand, or appreciate. It is often easy, for example, for a short-term consultant to quickly identify a problem and to recommend an "obvious solution". The long-term specialist may see the same problem, but because of the nature of his assignment will look for ways to build the solution into a program to be adopted over a period of time and thus to become a part of that tradition. Both expatriates can make a useful contribution to achieving project goals.

In both situations, the expatriate's time in the host country is relatively short. The nationals who are his colleagues will be there for their lifetime. They must clean up after he leaves. There were communication activities before the expatriate arrived, and there will be others after his departure. The expatriate's goal should be that the nationals will benefit from his having been a guest in their country and a colleague in their work. The contributions that have been made should become institutionalized and thus remain as a part of the new equilibrium long after the expatriate team is forgotten.

Some summary thoughts about communication in agricultural development:

-- Information is a valuable commodity in the Third World. It is to be possessed, controlled, and used to advantage (and often this means for personal gain). This control can be exercised negatively by restricting the distribution of a book, limiting the participation in a meeting, or by not passing along useful information or news. And, it can be managed positively by guiding and timing the dissemination process for optimum effect.

-- Control of information in the communication process is a source of power over colleagues and other potential users. In a publication program, this can be dominance and management of an agency, a newspaper, the government, or an entire country.

-- The concept of public opinion as a force in decision-making is not a factor in Third World countries, except in extreme cases such as famine or war. People for whom survival is the daily preoccupation have little concern for the subtleties of economic policies or social change. Only the opinions of the elite -- the rich, the military, the politicians -- go into forming policy concensus. These groups can be reached directly, often personally, thus there is less need for mass media to communicate to them, except to develop awareness.

-- Mass media are limited, primarily centered in the urban areas, usually the capital city. The masses tend to be functionally illiterate, and thus to have little or no use for newspapers or magazines or other publications. Television is for the rich, most of whom have western expectations. Radio is the only medium to reach mass audiences, including rural people. One of the very exciting recent uses of this medium was the role of Radio Veritas in mobilizing the anti-Marcos forces in the Filipino revolution of 1986.

-- Technology of communication is changing rapidly in the Third World, making it possible to combine the state-of-the-art with the traditional. The expatriate communication specialist may have to relearn his technological skills, such as the need to work with the handset type that is still used in many print shops in Bangladesh. Learning these old methods is much like a hybrid corn breeder who has to develop new open pollinated varieties. The expatriate learns that printers in Third World countries have different trade customs, practices, and standards; these are something else requiring his making adjustment to his new environment. And it may be something of a shock to see the often high quality work they produce. This is offset by the disappointment and frustration that comes from poor quality on seemingly simple projects.

There are demands on the project and agency to purchase printing and other services in-country. Such directives may be politically sensible, but can be expensive and time-consuming, and lead to less than "international standard" publications.

Modern communication technology is difficult to adapt to Third World conditions. The chemicals for offset printing must be imported, along with the electronic equipment; thus they are expensive, difficult to acquire, and in short supply. Printers tend to use them beyond their recommended effective times. Equipment is hard to service, maintain, and repair without trained personnel and proper stores of spares. Typesetters often have no understanding for the structure of a second language such as English -- they are setting one character at a time. Local paper production is encouraged, but the product often is poor quality and still expensive. Most good paper is imported. Even when available, government policy may restrict public agencies from using it in their printing.

There is another side to the technology issue. Regardless of the constraints, computers are moving rapidly into the developing countries. Their adoption illustrates that people can successfully skip several steps in the development process. It was almost breathtaking to see how quickly something like microcomputers can move into a tradition-bound society, though not without some cultural problems, such as the control of information.

-- How well the expatriate's national counterparts support the work of the technical assistance project may be influenced by factors seemingly unrelated to the activities. Employee motivations in Third World countries are rooted in their respective cultures. These responses may well influence the success or failure of a project, so the expatriate must be sensitive to them and try to implement adjustments to fit the needs to the ways of the system.

-- Not everyone is receptive to ideas which are introduced from the outside, especially by persons of another race or culture. These reactions may be hard for the expatriate to understand. Such responses can be politically motivated. They can be the result of a personality trait. Or they may be because an individual has suffered an injustice at the hands of one of the expatriate's countrymen or of his race. Some persons of the host country -- often far more than is quickly discernable -- believe that taking of funds or advice from outsiders is a sign of weakness and inadequacy. Nationals who work with or for foreign-funded technical assistance pro ects

also may be abused and criticized, even ostracized by their families and communities.

Most of the factors influencing the planning and implementation of the communication segment of an agricultural development project are beyond the control of the expatriate specialist, but this is no justification for withdrawal. Some factors can be influenced, so the challenge is to identify these and use them to advantage of the goals of the project.

To work in technical assistance is to be committed to change that will help the people of developing countries to achieve a better quality of life. In agricultural development this includes more and better food, fiber, forest and fishery products, and improved employment opportunities.

Byrnes Law should be kept in mind as we approach each communication posting: "Upon arrival you are asked to to something quite different in substance or duration than what you expected to be doing." To that I suggest adding a corollary to the effect that this condition probably will continue throughout the assignment, influenced by the national counterpart's perceived need of the situation and of the expatriate's ability and availability.

The opportunities to make a routine difference far outweigh the liabilities. Progress is being made. In the case of Bangladesh, there is much greater food production than when this work started a decade ago. There is a certain level of adventure, though on most days the work may seem frustrating rather than stimulating. It is exciting to be a part of "change" -- of helping bring a better way into the lives of people who have so much need. Whether as an agronomist, an engineer, or a communicator, we have the know-how to help. Usually we are doing things we have never done before, in places and situations we have never been, but adapting, learning, and contributing.

In most developing countries, the needs are great -- at times overwhelming. The need is to gain a view of the "big picture" of agricultural development, then to identify the parts of it that are possible. Take on the possibilities one-by-one and move ahead. At the end of the assignment, specific achievements are confirmation of the importance of communication in agricultural development.

[1]Byrnes, Francis C. 1984. Dilemmas of the communication consultant abroad. ACE Quarterly 67(3):20-27.

[2]Bangladesh Agricultural Research Council. 1983-1986. AGRESEARCH NEWS newsletter. Dhaka, Bangladesh.

[3]Hutchcroft, Theodore. 1987. Newsletters as agricultural development tools: characteristics and applications. Paper for ACE/AUSUDIAP meeting June 2-4, 1987.

[4]Hutchcroft, Theodore (ed.). 1983. Agricultural Research in Bangladesh: Contributing to National Development. Bangladesh Agricultural Research Council, Dhaka, Bangladesh. 182 pages.

[5]Hutchcroft, Theodore (ed.). 1985. Ten Years of Agricultural Research in Bangladesh: Proceedings of the National Symposium on Agricultural Research. Bangladesh Agricultural Research Council, Dhaka, Bangladesh. 277 pages.

[6]Bangladesh Agricultural Research Council. 1983. This is BARC, third edition. Dhaka, Bangladesh. 24 pages.

[7]Bangladesh Agricultural Research Council. 1984. National Agricultural Research Plan, 1984-1989. 152 pages.

[8]Hutchcroft, Theodore (ed.). 1986. Management of Human Resources in Agricultural Research. Bangladesh Agricultural Research Council, International Service for National Agricultural Research, and Winrock International Institute for Agricultural Development, Dhaka, Bangladesh. 145 pages.

[8]Hutchcroft, Theodore (ed.). 1985. Evaluating Agricultural Research Programs. Bangladesh Agricultural Research Council, International Service for National Agricultural Research, and Winrock International Institute for Agricultural Research, Dhaka, Bangladesh. 133 pages.

[9]DeVivo, Anita. 1985. Technical Course for Editors of Bangladesh Agricultural Science Journals. Bangladesh Agricultural Research Council, Dhaka, Bangladesh. 29 pages.

IMPLEMENTING COMMUNICATION IN DEVELOPMENT PROJECTS: NEW DIRECTIONS

by

Howard E. Ray *

This is the second time I have been privileged to speak to this group about implementing communication in development projects. I would like to commend AUSUDIAP and ACE for highlighting the critically important topic of communication in these two meetings.

As Dr. Hutchcroft emphasized in the preceding paper, "communication is a 'given' in development. It is the catalyst that enables the other elements of the project to more nearly accomplish their goals" (Hutchcroft 1987). I would go further. I believe that incorporating well-designed, audience-oriented communication support programs into development projects offers perhaps the greatest single opportunity to improve project performance. But, we must do better than in the typical communication program of the past.

Most of my remarks today will focus on the use of communication in agricultural technology development and transfer projects and programs. More specifically, I will lead on from Dr. Hutchcroft's insightful presentation on science and organizational communication in technology generation and development to address some of the issues related to incorporating effective communication support into agricultural technology transfer programs.

Extension institutions and technology transfer programs exist in virtually every LDC. Yet, coverage of farm families is still limited, the quality of extension programs is still questionable, and the transfer of beneficial new and underutilized agricultural technologies continues to lag. Experience from successful projects in agriculture and other sectors indicates that this situation can be improved through incorporating appropriate multi-channel communication strategies into extension-type programs. I will cite just three such projects as illustrations.

The Masagana 99 rice promotion campaign in the Philippines energized the national rice-growing program and helped transform the Philippines, in just a few years, from a rice-importing to a rice-exporting nation. One of the key elements in Masagana 99 was a mass communication program using radio and print materials in combination with intensive training of extension agents (Merrick 1981).

---

* Vice President and Director,
Communication for Technology Transfer in Agriculture
Academy for Educational Development, Inc.
1255 23rd Street NW, Washington, D.C., 20037

The Guatemalan Basic Village Education (BVE) Project experimented with different ways of using radio and printed materials to complement face-to-face communication with farmers individually and in groups. BVE demonstrated that:

- integrated communication support can bring about significant positive changes in farmers' knowledge, attitudes and behavior;
- no single communication channel combination is best for all situations; and
- radio can be localized, personalized and directed at specific audience segments.

Most BVE media treatments, under most circumstances, had potential to yield substantial economic returns to both the farmer and society (AED 1978).

In the health sector, social marketing techniques which included the use of mass media to complement personal contacts were used to promote the preparation and use of locally packaged oral rehydration salts (Litrosol) to help overcome dehydration in young children suffering from diarrhea. After two years of the campaign in Honduras, a random-sample survey of 750 households showed that over 60 percent of the women questioned had used Litrosol, and more than 90 percent of those could mix it properly. Widespread use of Litrosol appears to have substantially reduced diarrhea-related mortality. The proportion of deaths involving diarrhea among infants fell from 40 percent in the two years before the campaigns to 24 percent two years later (AED 1987; Meyer, Ray and Saunders 1987).

Thus, it has been well-demonstrated that technology transfer can be accelerated through implementing appropriate multi-channel communication programs in development projects, provided the necessary conditions for change can be satisfied.

REQUIREMENTS FOR CHANGE

I want to pause briefly at this point to comment on requirements for change, because communication support can be effective only to the extent that those requirements can be satisfied. Although recognized in theory, this is too often neglected in practice.

For the agricultural projects just cited, the first requirement was a supply of appropriate technologies to communicate; farmers also needed access to inputs, markets, incentive prices, etc. In the example from health, access to Litrosol was essential. The specific requirements obviously depend upon the characteristics of the desired change.

The "requirements for change" factor must be considered in designing and implementing appropriate communication strategies in development projects.

INFORMATION VS. COMMUNICATION

LDC extension institutions typically have information units; and mass media, audiovisual aids and printed materials are used extensively. The problem is that use of communication skills, media and methodologies remains ad hoc and fragmented. Too often, they are poorly integrated into the total extension program; and strategies for their mutually reinforcing use to support the program are still rare.

What is needed to transform present agricultural information activities in LDC extension into effective communication support programs for technology transfer?

NEW DIRECTIONS

At the 1985 joint AUSUDIAP/ACE conference, I discussed major elements to be considered in designing communication into agricultural technology transfer projects (Ray 1985), extracted largely from "Incorporating Communication Strategies into Agricultural Development Programs" (Ray 1985).

Today, I would like to concentrate on some new directions that hold promise for transforming agricultural information activities into solid and effective communication in support of agricultural technology transfer. They come from many projects and programs around the world, and from diverse disciplines. Time will permit me to mention only a few.

Social Marketing

Social marketing was first defined more than a decade ago as the design, implementation and control of programs calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communications and marketing research. Today, social marketing techniques are widely used in the United States for a variety of socially beneficial causes; and have been used in the developing world to promote breastfeeding, health and nutrition, family planning, literacy and (to a limited extent) agricultural technology. Evidence indicates that combining some of the social marketing techniques learned from the health sector with some mass-marketing techniques used in earlier agricultural projects could greatly improve the performance of agricultural extension programs (Meyer, Ray and Saunders 1987).

With reference to communication and social marketing for health, Smith (1985) concluded that "Social marketing is also making a critical contribution. . .because it acts as a new organizing principle for our communication efforts. It forces us to go beyond simple slogans, promotion and advertising strategies and helps us focus on product design, distribution systems, consumer costs, and promotion in a single comprehensive strategy."

Behavioral Analysis

Behavioral analysis is the study of environmental events which maintain and change behavioral patterns. It assumes that behavior is shaped by its consequences and that behavior is amenable to change if the appropriate approach or behavioral technology is employed. Behaviorists stress the importance of understanding the full context in which a new behavior will occur; they seek to identify positive consequences which will follow the behavior and avoid negative results.

Perhaps the primary contribution of behavioral analysis to technology transfer has been its focus on the behavioral specifics of each new technology: What environmental events or antecedents trigger a given practice? What are the salient characteristics of the behavior itself which make it more or less difficult to perform? What consequences follow the behavior which reward or punish the individual?

In its application to agricultural technology transfer, the role of behavioral analysis is to probe the reasons why a practice continues; how a new practice might be introduced; and how such a practice can be configured, presented, and used to ensure its maintenance over time. Behavioral analysis can help planners select better messages to promote, and ensure effective learning when messages are selected (Smith, Porter and Ray 1987).

The Farming Systems Approach

The farming systems research and extension (FSR/E) approach stresses the need for interdisciplinarity, recognizing that farmers must integrate knowledge from various disciplines in allocating resources among their various enterprises. One of the distinguishing features of FSR/E is its need to operate at the community level. It involves an initial diagnosis to describe the farming system and identify farmers' problems, followed by research on high priority problems in farmers' fields as well as on experiment stations.

Although extension recommendations based only on geographical or ecological factors may not be appropriate for every farmer in an area, it is impractical to conduct research on all problems unique to individual farmers. Therefore, the FSR/E approach defines farmer groups or recommendation domains (in communication terms, the audience is segmented). Farmers, researchers and extension agents are involved at every stage of the approach; and effective communication is essential (Farming Systems Support Project 1986).

The FSR/E elements of interdisciplinarity, community-level focus, problem identification and diagnosis, farmer-researcher-extension agent involvement, and audience segmentation are equally relevant in implementing effective communication support in agricultural technology transfer and other development projects.

INTERPAKS Diagnostic Framework and Analytical Tools

Identifying and understanding communication links among agricultural researchers, extensionists and farmers; and among agricultural research, extension and farmer organizations is key to identifying constraints in the flow of technology. INTERPAKS' cooperative research project with AID/S&T has developed a diagnostic framework and analytical tools to help governments and donor agencies better understand agricultural technology systems and the research -extension - farmer interface. Simply put, INTERPAKS is seeking "to develop a 'roadmap' that shows where communication techniques can be used to strengthen that interface (Woods 1987).

INTERPAKS techniques are being applied in Ecuador to help develop linkages between INIAP, the agricultural research organization, public and private sector organizations and farmers; with the International Potato Center (CIP) in Peru to develop a methodology for tracing the flow of potato technology; and in Northwest Frontier Province, Pakistan, to identify how university-based agricultural research can be linked with the provincial extension service.

PRODERITH in Mexico

Its special Rural Communication System is a prominent feature of the World Bank-assisted PRODERITH project in Mexico that works with groups to encourage rural people to participate actively in development. The Rural Communication System, which makes extensive use of portable video equipment, plays an important role in planning and decision-making processes, and assists in implementation.

During early stages of development in a particular area, video programs are used to introduce PRODERITH to the local community and to initiate a dialogue between the community and the project staff. Video programs, made largely in the field and edited at project headquarters, are used in group training sessions (supported by booklets and by discussion and practical work supervised by a subject matter specialist). Locally-made programs are also used to communicate the experience of one group of participants to another (International Extension College 1987).

BVE in Guatemala

The Guatemalan Basic Village Education (BVE) project was cited earlier. Although it did not have access to many of the social marketing and behavioral analysis techniques still evolving at that time, BVE provides a useful model of a comprehensive, cost-effective communication support system for extension (Meyer, Ray and Saunders 1987).

MMHP in Honduras and The Gambia

The Mass Media and Health Practices Project (AED 1987), for which some results were cited earlier, pioneered in using social

marketing principles and techniques in a developing country health project. Experience gained in MMHP is being used widely in health and other sector projects, including in the present AID-funded worldwide Communication for Child Survival (Healthcom) and Communication for Technology Transfer in Agriculture (CTTA) projects.

Communication for Technology Transfer in Agriculture (CTTA)

The AID-funded worldwide CTTA project*, of which I am Project Director, provides an opportunity to apply innovative approaches for effective use of communication to support agricultural extension programs in pilot communication projects in up to nine countries. The project objective is to develop, test and demonstrate integrated multi-channel communication strategies and methods that increase the impact of extension-type programs at costs affordable for sustained use by developing nations.

CTTA is taking advantage of experience gained in projects such as those just cited. Behavioral analysis and social marketing elements are also being incorporated in the pilot communication projects. Particular emphasis is placed on strengthening linkages among research, extension, input and service providers, policymakers, and farmers; and CTTA will assist in institutionalizing the CTTA process and methods in countries with which it collaborates.

The communication process followed by CTTA is illustrated in Figure 1. It is an iterative process in which each stage feeds into and draws from all others. Concepts and techniques from social marketing, behavioral analysis and extension, and experience of other projects are used as appropriate in all stages. Briefly described, the process consists of:

Investigation

As I have already emphasized, a continuing supply of appropriate, locally-adapted agricultural technologies is essential to communication program success. Therefore, the first step is to determine the stage of readiness for diffusion of new and underutilized technologies--from the perspectives of research, agricultural infrastructure, and policies that provide incentives (or disincentives) for farmer adoption.

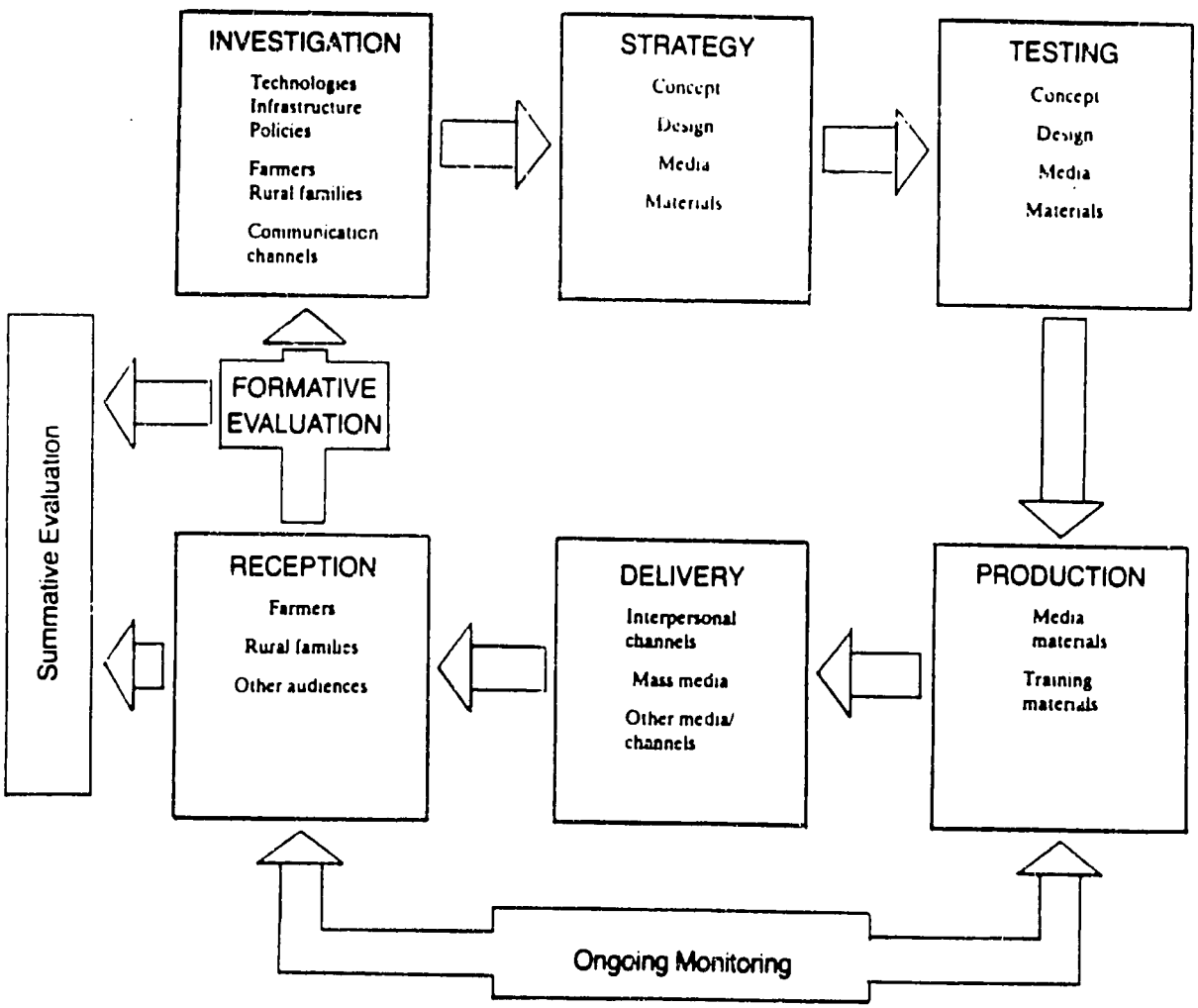
The potentially appropriate technologies are then assessed from farmers' perspectives--perceived dependability; economic benefit; risk; similarity to present practices; practicality, considering farmers' resource and other constraints; and possible negative consequences of not adopting.

---

* Jointly managed and funded by the Offices of Education, Agriculture, and Rural Development of the Bureau for Science and Technology of the United States Agency for International Development in collaboration with Regional Bureau Technical Staff and the USAID Mission at each collaborating site.

FIGURE 1

CTTA Communication Process



We also need knowledge and understanding of the farmers themselves. CTTA uses various research techniques, collectively termed developmental investigation, to learn more about farmers and rural families in the target region--their:

- cultural and social characteristics,
- vocabulary,
- receptivity to change,
- ways of receiving and using new information,
- practices and adoption levels,
- hidden constraints they may encounter in trying an innovation, and
- variability.

Design of the strategy and materials

The CTTA communication strategy (plan for action) is based on results from the technology assessment and developmental investigation. Designing the strategy involves:

- determining message content and defining the behavioral framework and objectives;
- defining and segmenting the target audience;
- selecting mutually reinforcing channels for delivering information; and
- developing a system for coordinated message development; pretesting; timely production and delivery of farmer-oriented information through the selected channels; formative evaluation; and feedback.

Testing the strategy concept and materials

Preliminary strategies, messages and media materials are field-tested to ascertain their effectiveness in transferring information to farmers.

Materials production

Key elements in producing informational and educational materials that serve the program and its audience are:

- detailed production schedules, rigorously followed;
- close coordination among those responsible for message development, materials planning and production, formative evaluation, and feedback;
- careful checks on content accuracy and production quality;
- systematic pretesting of representative materials; and
- prompt response to formative evaluation results and feedback.

Continual interaction with those involved in other areas of the technology development and transfer system, also critically important, is carefully nurtured and maintained.

Delivery

The multi-channel strategy includes timely delivery of information targeted to specific audience segments--as well as general information disseminated more broadly--through mass media, interpersonal communication and other appropriate channels.

Public sector channels such as extension agents and media programs are used to the maximum possible extent. Private sector channels are also used extensively--such as radio stations, newspapers, farmers' organizations, input supplier field agents and sales people, marketers, and local volunteers.

Audience reception

The ultimate success of CTTA depends upon the extent to which farmer adoption of appropriate new or presently underutilized agricultural technologies increases as the result of effective communication support to extension and other technology transfer programs.

Formative evaluation

In CTTA, formative evaluation includes studies carried out as part of project implementation to determine if the messages disseminated to farmers have been timely, well-received, understood, and considered to be practical; and whether the various program elements are functioning as planned.

Summative evaluation

Summative evaluation proceeds concurrently with project implementation. Although the summative evaluation is independent of implementation, evaluation and implementation staff work in close coordination.

Ongoing monitoring

Communication programs must have the capacity and flexibility to respond promptly and appropriately to unanticipated situations.

CTTA uses systematic feedback and networking--with farmers, researchers, extensionists, policymakers, input suppliers, and other private and public sector institutions/organizations--to maintain the multi-directional flow of information essential for coordination and monitoring.

Training and support

Training and support, although not shown in Figure 1, are ongoing and concurrent functions. CTTA emphasizes training at all levels for both project staff and public and private sector staff who are channels for reaching the farmers with information

and reporting feedback from them.

I should mention that CTTA pilot communication projects are now operating in Honduras and Peru, and we anticipate startups soon in two additional countries. Pre-project activities are in progress in Africa. More information about this project is available in "Communicating with Farmers: Communication for Technology Transfer in Agriculture" (Ray 1987).

Several of the universities represented at this meeting, and people present, are contributing to the CTTA Project for which the Academy for Educational Development is prime contractor. Our major subcontractors are Cornell University and (for summative evaluation) Applied Communication Technology, Inc., a firm with close links to Stanford. We have collaborative arrangements with Iowa State, Virginia State and Wisconsin universities, and with Dordmus Porter Novelli, a social marketing firm. In addition, our project advisory board includes representatives from Missouri, Purdue, Minnesota, San Diego State, and Harvard. We also work closely with INTERPAKS at Illinois, and maintain links with several other universities.

THREE VITAL ELEMENTS

Synthesizing our experience in agricultural extension and health, three elements appear vital for success in communicating with farmers--farmer orientation, targeted change, and an integrated media network (Smith and Ray 1985). These elements are inherent in the CTTA communication process as well as in the other communication projects cited.

Farmer Orientation

The farmer must be an active participant whose needs, constraints, attitudes, and vocabulary determine the nature of the communication. In other words, communication is more than a link to the farmers; it links together farmers, researchers, extensionists and planners.

Behavioral analysis and social marketing have made major contributions to providing tools for understanding the farmers' perspectives. Concept testing, focus group interviews, behavioral trials and central intercept interviews--developed and/or refined by behaviorists and social marketers, and tested in various projects (particularly in the health field)--are specialized names for new kinds of sound village research techniques. They help identify hidden constraints a farmer may encounter in trying innovative techniques and technologies. They also help us to understand some not-so-obvious incentives that promote adoption; to select a vocabulary the farmers will understand; and to integrate the innovation into the farmers' own views of their problems and needs.

Targeted Change

Effective communication support must be synchronized with seasonal variation in farmers' needs. Also, for a new behavior to become routine, people need to do it repeatedly, and to receive support from many places and as close as possible to the time a person first tries it.

The latter presents a real problem in agriculture. For example, benefits from planting a new crop variety can be observed only as the growing season progresses and in the final yield. Drought, floods, unexpected increases in fertilizer prices, credit shortages, or a multitude of other factors can undermine the most carefully used technology. And the resources and management skills of farmers vary greatly, even within a community.

The information we give must take such variables into account, and be integrated into a comprehensive communication strategy that helps farmers deal with seasonal problems as they arise.

Media Network

Within the media network, each medium has particular strengths for reinforcing change objectives. To oversimplify, it appears that broadcast media are best at reaching many people quickly with fairly simple and straightforward ideas. Print media are best at providing reminders of information at the time it is used. Interpersonal contact--through extensionists, group meetings, community organizations, demonstrations, etc.--is the best way to teach and develop credibility.

Few projects can afford to use all these methods all the time. Therefore, we must select elements carefully from each of the media groups, and integrate them so they multiply each others' effectiveness. This is done through using what communication specialists call channel strategies.

Channel strategies are situation-specific and grow from an understanding of a particular area and a particular program. They are based on pre-program (and continuing) research into questions akin to those of marketing research in developed countries, such as:

- "Who listens to what?"
- "Who reads? Who can read?"
- "What are costs of using each media channel?"
- "How complicated is the information we have to give?"
- "How accustomed to (or tired of) radio or print messages is our audience?"
- "Whom does our audience trust for advice on a given topic?"

THE CANS AND CANNOTS OF COMMUNICATION SUPPORT

Communication can effectively increase program participation

if organized successfully around the "three vital elements" in applying the communication process illustrated in Figure 1. It can provide information to reduce risk and improve efficiency in using services. Effective communication both within each program or project component (as presented for the research component by Dr. Hutchcroft), and networking among all institutions and agencies involved in the technology development and transfer process are critically important in this regard. Finally, effective communication can lead to increased adoption of new practices.

It is my belief that all of these can be accomplished through building on indigenous information systems and available skills and facilities, and by integrating them into public and private sector extension efforts.

At the same time, communication is not a panacea. For example, a communication support program cannot provide needed goods, or services other than information. Neither can it provide access to markets or set prices. Even here, however, effective communication may influence such factors through collecting and channeling reliable feedback from the field to research, input and service providers, policymakers, etc.

WHAT IS NEEDED TO GET COMMUNICATION MOVING?

It is all well and good to talk about the value of implementing communication in development projects, and about the requirements for and role of communication. All of this will come to naught, however, unless something happens. What is needed to get communication moving?

Many reasons can be given for lack of progress in communication in development projects and programs to date, including lack of resources, staff mobility, communication infrastructure, skilled communicators in the country, etc. Although each has some validity, seldom do they place an absolute constraint on implementing effective communication support. On the contrary, such reasons may offer the strongest possible justification for strengthening communication efforts.

The first requirement for adding communication and dissemination to new and/or ongoing development projects is understanding the potential benefits to be gained. The benefits must be understood by both the host country institutions responsible for technology development and transfer, and by the donor agency.

The second requirement is commitment of project planners and implementors to allocate resources to communication. This will come only if the proposed communication support is affordable to the project.

I am optimistic about getting communication moving in agricultural development projects, and would like to cite a few examples from our own experience that have given rise to my optimism.

First, we have observed increasing AID and other donor interest in communication. There is widespread concern that agricultural technology transfer is lagging behind, and recognition that more effective communication support may be essential for improving this situation.

Second, most host country governments in the Latin American, Asian, Near Eastern and African countries with which we have had contact have expressed support for incorporating effective communication into their technology development and transfer programs.

I would like to cite experience in three countries to illustrate why I think communication is beginning to move:

- The Honduran Ministry of Natural Resources requested assistance from USAID/Honduras in analyzing their agricultural communication situation and developing recommendations for its improvement. That analysis, made in early 1984, led to selection of Honduras as the primary site for CTTA, and a pilot communication project is now in progress.

- In Indonesia, a midterm evaluation of the AID-supported Secondary Foodcrops Development Project led to plans to incorporate a significant communication component in the project.

- In Jordan, CTTA was asked to assess the feasibility of a CTTA pilot communication project. That study has just been completed by a CTTA team comprised of Dr. Eric Abbott (Iowa State), Dr. John Woods (INTERPAKS, Illinois) and Dr. George Abawi (Cornell); and their recommendations are now being reviewed in Jordan.

The interest in implementing communication in development projects is real and growing. Therefore, I would like to conclude my remarks by offering some guidelines for developing projects or project components that use multi-channel communication appropriately and effectively in support of technology transfer:

- Verify that necessary conditions for change are met.

- Specify clear behavioral objectives.

- Determine the characteristics of the target population to ensure that messages, channels and presentations are appropriate and acceptable to the receivers.

- Use mass media to complement staff efforts in the field, thus increasing staff effectiveness and coverage.

- Obtain frequent, reliable feedback from the target population to guide program changes and the ongoing development of media messages.

- Localize messages and media presentations.

- Provide continuing job-oriented training and staff development opportunities.

- Set priorities. Seldom can the communication system meet all the demands that are placed upon it.

- Think in terms of a comprehensive communication support program in which all channels--media and face-to-face--are mutually reinforcing.

Of all these guidelines, perhaps the most important are those that pertain to knowing the farmers and continually adjusting the program to their needs and constraints.

REFERENCES CITED

AED. 1978. The Basic Village Education Project: Final Report. Academy for Educational Development. Washington, D.C.

AED. 1987. 1986 Program Review, International Division. Academy for Educational Development. Washington, D.C.

Farming Systems Support Project. 1986. Diagnosis in Farming Systems Research and Extension: FSR/E Training Units Volume 1. Lisette Walecka, Steve Franzel, Malcolm Odell, and Marcia Odell, eds. Institute of Food and Agricultural Sciences, University of Florida. Gainesville, FL.

Hutchcroft, Theodore. 1987. Implementing Communication in Agricultural Development Projects: Identifying to Doable Parts of the Big Picture. Winrock International Institute for Agricultural Development. Morrilton, AR.

International Extension College. 1987. Mobilizing Messages: A World Bank Training Package. David Warr, ed. International Extension College. Cambridge, United Kingdom.

Merrick, Jill. 1981. Masagana 99: Promoting a Miracle; An Agricultural Campaign in the Philippines. Academy for Educational Development, Washington, D.C.

Meyer, Anthony J., Howard E. Ray, and Susan Saunders. 1987. Communicating with Farmers: Transferring New Technologies. Academy for Educational Development. Washington, D.C.

Ray, Howard E. 1985. Communication Strategies to Accelerate Agricultural Technology Transfer. Presented at National Conference on International Programs and Agricultural Communication: Partners for Agricultural Development. St. Louis, MO.

Ray, Howard E. 1985. Incorporating Communication Strategies into Agricultural Development Programs. Academy for Educational Development. Washington, D.C.

Ray, Howard E. 1987. Communicating with Farmers: Communication for Technology Transfer in Agriculture. Academy for Educational Development, Washington, D.C.

Smith, William A. 1985. Communications and Social Marketing for Health. Academy for Educational Development, Washington, D.C.

Smith, William, and Howard Ray. 1985. "Communication Strategies for Agriculture: Hybrids of a Different Kind," Development Communication Report No. 50. Academy for Educational Development, Washington, D.C.

Smith, William A., Douglas Porter, and Howard E. Ray. 1987. The Application of Behavioral Analysis to Agricultural Technology Transfer (in draft). Academy for Educational Development. Washington, D.C.

Woods, John L. 1987. Personal communication.

Finding the Right Kind of Communicator for the Job

by

Manuel Piña, Jr.

Introduction

In response to the problem of "finding the right kind of communicator for the job," within the context of international agricultural development, I am relying on interaction with communication officers from other international agricultural research centers (IARCs) and my own experience in communications work at the International Potato Center (CIP) during the past nine years.

Furthermore, because many of the IARCs are occasionally faced with the same problem, I felt a broader input would be appropriate. For this purpose, eventhough there is good exchange of information amongst the communication officers from the IARCs, I surveyed the leaders of communications programs asking the following questions:

- How do you define your role as a communicator at your center? Specifically, on this question, do you have public relations functions?
- If you do, how do you feel about these?
- Where are you located in your center's organizational structure?
- In your work, from what do you derive the greatest satisfaction?
- From what do you derive the greatest frustration?
- For the work that is expected from communicators at your center, what characteristic(s) do you look for in recruiting?

While responses were received from 13 IARCs, I have not tabulated or summarized them. Instead I have used them as background information to this paper, and taken note of very important points on selecting personnel. Where appropriate, specific mention of their responses is made.

It should be noted that their reactions to the question on public relations have already proven valuable to the work of an IARC system-wide committee that is developing a global strategy to promote international agricultural research.

I am sure this paper, at best, will provide only a partial response to the question. However, it seems that while finding the right kind of communicator for the job depends on a large number of factors, there are at least two which are particularly important from an IARC perspective -- institutional objectives and the changing role of the communicator. I will describe these briefly and then share our experience at CIP in attempting to reconcile these in our communications work.

This is not to say that ours is the ideal approach; we are sure it can be improved, and I welcome any suggestions. I refer to our work only to demonstrate the importance of these two aspects in finding the right kind of communicator for the job.

Institutional Objectives

The first factor relates to the objectives of the employing institution that is involved in international agricultural development, i.e., the mandate or mission of the employer.

It is of utmost importance that the employing institution have clearly defined objectives and that these are generally understood by all staff, and their families. Also the institution must identify the tasks the communicator is expected to undertake. If this is not possible or difficult to ascertain, it may lead to frustration to both parties.

If the institution's objectives are stated, the communicator must not only understand and accept them but also fully internalize them. This is important because the communicator is expected to undertake independent action toward the accomplishment of those objectives. CIMMYT's Tiffen D. Harris (5) writes:

> "... The ability to synthesize information from disparate sources into a cohesive whole is central to the writer/editor's life here, for example, as is an orientation to active participation in the creation of CIMMYT publications, as opposed to passive editing of whatever comes across one's desk. We look for an entrepreneurial spirit, if you will, that will enable the staff member to function successfully with a minimum of guidance... And we look for generalists, people who have broad backgrounds both within their own disciplines as well as in the agricultural sciences, because we are far too small an organization to permit specialization. For this reason we have writer/editors who are also good photographers and who have (or acquire) a strong sense of publication design and who are also familiar with Third World development issues."

Reacting to a wider role the communicator may play in the transfer of technology process, an enabling objective of most IARCs, the Consultative Group on International Agricultural Research (CGIAR) Secretariat's E. Sulzberger (7) adds:

> "I think this point also overlaps your point about the employing institution deciding in advance what they expect from communicators. Most institutions have a very vague concept of what our field is all about, what we can do for them and what in fact we should be doing for them. We need to demonstrate our capabilities and most of all we need to show some vision."

IRRI's T.R. Hargrove (4) maintains that misunderstanding of what we can offer often results in misuse which leads to frustration. His response to the survey is the most complete and addresses the major points one should take into serious consideration in recruiting and selecting. As it relates to families, he writes:

> "Spouses are very important in this type of work -- much more than if we were recruiting at, say, a U.S. university. We work long hours, we often ignore weekends and holidays, and the job often requires extensive travel. Many of the Centers are relatively isolated. A spouse who cannot adjust means trouble."

These statements plus my own personal experience reflect the importance of the existence of clearly defined intitutional objectives. These will often indicate what tasks the communicator is expected to perform. Their absence or vagueness point to possible conflict between the communicator and the institution's management.

Changing Role of Communicators

The second factor relates to the changing role or trends for communicators in the IARCs. Two important trends merit mentioning in this paper.

The first trend is toward increased interaction and support to national programs. This trend is evinced by requests from the more advanced national agricultural systems, and are reflected in various studies and reviews of the IARCs. For example, the CGIAR's Technical Advisory Committee (TAC) Review of CGIAR Priorities and Future Strategies makes four points that are relevant to this discussion (9):

1. It stresses "inter-center cooperation." Using institution building as an example, it makes specific reference to training in common areas such as farming systems research.

2. It suggests that within the framework of cooperation with the more advanced national programs the work be guided by a common system-wide approach in the planning process, but decentralized at the center level. "In such a framework, cooperation ...would concentrate increasingly on such activities as ... information collection and dissemination (i.e. the bridging role of Centers)."

3. It suggests that the system concentrate a "higher share of its resources on strategic and basic research." As such, "the national system would undertake a more important role in technology generation with the system facilitating linkages to basic science and assuming an expanded service function to the national systems."

4. Finally, specifically related to farming systems adaptive research (FSAR), it suggests:

   "Centers should continue to concentrate their efforts on developing research methodologies in FSAR, training national scientists in on-farm research methods, and stimulating awareness of the benefits of this research approach which integrates the farmers' needs, priorities, and knowledge in the process of technology development ... Centers should maintain active linkages with FSAR programs in collaborating national systems as a means to channel critical feedback to the Centers' scientists on the performance of their technologies and recommend management strategies."

Another example, in 1984 I contributed to an impact study of the CGIAR by coordinating, on behalf of the TAC, case studies on training in six countries --Bangladesh, Ecuador, Kenya, Senegal, Sri Lanka, and Tunisia. In each of those countries there was clear and important national opinion related to needed support for improved communication with farmers and made specific

reference to training on communication, and other extension-related topics. (3)

More recently, in 1985 and 1986, I was closely associated with an evaluation of a UNDP-funded training project involving CIAT, CIP, and IITA, conducted by F.C. Byrnes. In interviews with 70 former training program participants and 13 of their supervisors Byrnes found the majority "indicated, in one way or another, desires for more training in communication, extension and training methods." (2)

These studies and reviews -- the voices of the national systems -- clearly indicate that the role of the communicator must change to meet the demand. It implies that the communicator must not take a passive role, since the efforts of the IARCs will ultimately be measured by what happens in farmers' fields, not by what we deliver to the doorstep of the national systems.

The second trend relates to increased emphasis publicity that is expected as a results of the work of the committee that is developing a global strategy to promote international agricultural research.

The objective of the strategy is to educate audiences on the current and potential accomplishments of international agricultural research. This effort should convince those interested in promoting agricultural development that supporting research to increase the quantity and quality of food production in developing nations is highly desirable and an excellent investment.

The strategy envisages publicity activities coordinated by a centrally-located unit but carried out by decentralized, independent action undertaken by the IARCs. In this process a "global association" including donor organizations, national support organizations and national communicators would be formed. In essence each IARC would produce generic materials that may be used by anyone in the association to promote international agricultural research.

The immediate implication for the IARCs is the effect it will have on the role of the communicators. Initial steps call for accumulation of information on a wide range of topics, initiate the production of generic publicity materials, assess the strengths and weaknesses of the association members' communication resources, and develop member-specific publicity action plans.

While the strategy is still under development, and will be considered for acceptance and implementation in the next few months, there is no doubt that the exercise and the involvement of communicators to this point will have an effect in the role communicators play in public relations in the future.

Communications Work at CIP

The importance of communication was recognized from CIP's inception. From the onset, as facilities and staff were attained, simultaneously a communications support unit was developing. As CIP embarked on priority research for improving potato production in the developing world and the regional research network became a reality, the need for communications as a part of the transfer of technology was further recognized.

The first CIP profile -- a projection of CIP's work to the year 2000 -- was written in 1979. It points out clearly the need to "maintain a global communication network on potato research" in which CIP would be the hub for facilitating information to national systems.

Since 1979, the infrastructure that enables CIP to establish and maintain close contact with national potato programs has been continually refined -- now collaborating with over 60 developing countries. Along with this has been the recognition that in order for improved technologies to reach national systems they must first be converted to information and that this information must be moved to national systems through a systematic process.

In this process, all CIP staff are involved, particularly our regional outposted staff, who are supported by our headquarters staff. The process hinges on close contact and collaboration between our regional staff and leaders of national potato improvement programs, and the support of centrally conceptualized activities. These activities are associated with our training program, communications support, and information services.

The training program -- human resource development -- is the principal cog influencing the movement of information to national systems. Through training activities and subsequent follow-up on-site visits and collaborative research projects, our outposted and headquarters staff interact directly with many national program staff who have the responsibility for continuing the movement of the information to their producers. In the past 13 years we have trained nearly 5500 national researchers, extensionists, and educators.

An important point on our training program, it is composed of two major categories of activities: specialized training and production training. Specialized training is intended to enable participants to conduct basic or applied research. Presently, this type of training is organized on an individual basis.

Production training is intended to enable the participants to respond to farm-level problems. Presently, this is mostly in-country for a particular country, or regional for a number of countries with similar production conditions.

It should be noted that each category requires different communications support before, during, and after the training. It is most important to recognize the differences, and the phases!

The information services unit, i.e., library and documentation, provides services to our scientific staff at headquarters in Lima and in our world-wide regional network, which includes eight sites in the developing world. Recently we have taken new steps to support national researchers with timely and updated research findings. We feel information services are a part of a process that diffuses information and responds to the needs of potential users of the information in the developing world, both in a systematic way. While this cog is driven primarily by activities of the training program, it requires extensive support and collaboration from the communications support unit.

The communications support unit collaborates with all of CIP's activities -- administration, research, and training. The tasks most IARCs perform in support of these functions are well-known. To list the ones we undertake would not be a wise use of this opportunity; suffice to add only that

involvement in the broader aspects of communication is of paramount importance to the training program, e.g., participation in determining the topics to be addressed, the media to be used, eliciting the information from the subject-matter specialists, and participating actively in its delivery.

Traditionally, we have said that the intended recipients of our research results are national research, extension, and education institutions, -- agencies involved in potato improvement in the developing world.

Essentially, getting information to national systems is not such a difficult task. Through our infrastructure of outposted scientists who have direct contact with the leaders of nearly all potato improvement programs in the developing world. We can get information to national systems quite efficiently.

The challenge for communicators in international agricultural development, however, is in assisting with bridging the gap that exists between the national systems and their farmers.

This is not an easy task, but it is central to the changing role of the communicator, particularly as the IARCs produce technologies that can improve food production.

No doubt many national institutions are capable of generating technology and conducting adaptive research; questionable is the existence of capable national extension agencies and complementary communication units to ensure that improved technology ultimately reaches producers.

The question is, what can IARCs do to assist in bridging the gap between national systems and farmers? And, what is the role of the communicator in this process?

To date, extension has been the agency and method generally mentioned to hold primary responsibility for providing agricultural information to farmers. Extension, however, includes a strong communication component, as well as an education component. B.E. Swanson (8) describes it as:

> "... the ongoing process of getting useful agricultural information to farmers (the communication dimension) and then in assisting them in acquiring the necessary knowledge, skills, and attitudes to effectively utilize this information or technology to achieve their own respective goals (the education dimension)."

Certainly, in the flow of agricultural knowledge and technologies from national agencies to producers many factors are involved. In summarizing a conference on "Knowledge Transfer in Developing Countries -- Status, Constraints, Outlook," E.L. Johnson lists 22 constraints "standing in the way of successful knowledge and technology transfer in agricultural development." (6) Nonetheless, while extension (communication and education) is not solely responsible, most constraints reflect on extension.

The tasks we propose should be taken by communicators in international agricultural development concentrate on forging linkages, through specific activities, between national commodity programs and national communication

units. Following are some activities and examples of the action CIP has taken:

Improving status of national communicators. Traditionally, national communicators have performed only service functions. One way they may be recognized for their expertise and allowed to function in wider role by giving them opportunities to participate in professional meetings and conferences, such as those in which other subject-matter specialists participate.

Example: In 1986, CIAT, CIMMYT, and CIP organized a one-week workshop at CIAT in which national communicators from 16 Latin American countries participated. This was funded by the International Development Center (IDRC). The result was the formation of a network of communicators (Red Interamericana de Comunicadores Agrícolas -- RICA). While the network has several functions, some of the members have already participated in CIP training and information exchange activities. This would not have been possible if they had not had the opportunity to interact with other communicators away from their home country and report their experience and conclusions to their home institutions.

Assisting national researchers to exchange research findings. There is much on-going research in national systems. Results are often published on a limited basis within the country and seldom, if ever, disseminated or exchanged with neighboring countries, even when a common language exists. National communicators can facilitate that there is a wider dissemination of research information.

Example: The Latin American Potato Association (Asociación Latinoamericana de la Papa -- ALAP) held a meeting in Panama in March 1987. A journal on potato research conducted by Latin America national potato programs will be possible through support form a CIP special project funded by IDRC. It will involve collaboration with members of RICA and the journal will be published by the Colombia national system on behalf of ALAP. It will be distributed throughout Latin America.

Communication training in in-country production courses. In order that participants in in-country production courses, mostly extension workers, are able to respond to farmers' problems adequately, they must be able to communicate effectively. While skills in extension methodologies, on-farm research, farm-level diagnosis, and informal farm surveys are essential, so are basic to communicate with farmers.

Example: In a production course in Bolivia and two in Peru, CIP has incorporated this type of training as an integral part of the courses -- not as an added-on lecture. The intent is to involve national communicators in a process whereby at the end of each day the course participants prepare the message they feel is of most importance for the areas in which they work and in the most appropriate medium. These have ranged from scripts for radio transmission to flip charts to posters to bulletins. National communicators are present throughout the course alongside the national subject-matter specialists and are available for consultation, particularly after working hours when the participants are preparing their messages.

Planning communications activities with national staffs. Long range plans for collaborative activity between national communicators and subject-matter specialists is essential. Unless this happens the communicator is always

reacting to a demand which may not be clearly understood either by the originator or the preparer of the message.

Example: During the course in Bolivia, some of the course participants developed long range communications activities with the national communicator. These involved poster and radio messages to be posted and broadcast, respectively, at the most appropriate time during the growing season of the crop.

Developing communications support from other agencies. In most developing countries there are usually a significant number of agencies, national and international, involved in agricultural development. Oftentimes these have financial resources to support a wide range of commodities and activities. National communicators and researchers can gain support for their communication activities.

Example: In a number of countries where CIP has collaborative research underway, there have been bilateral agencies eager to support the production of certain kinds of information for disseminating to farmers. A related example, is a copublishing agreement in Uruguay where we have published a set of technical information bulletins with adaptation input from Uruguay subject-matter specialists, and for distribution in other parts of South America.

Providing communication training to national communicators. National communicators, like national subject-matter specialists, need refresher training and training on new skills. The training, in order to be most effective, however, should be given jointly to communicators and researchers or extensionists.

Example: In preparation for publishing the ALAP journal, CIP will conduct writing workshops in Colombia for the Andean region, Central America, Mexico, and the Caribbean and in Argentina for the southern cone of South America. Two participants from each country will be accepted: a communicator and a researcher. The intent is to teach both the format and style of the journal and in this way they can return to their countries to ensure that quality articles are submitted to the journal. The instructors in the course will be the communicator from the Colombia national system and CIP communication officers.

Following-up with national communicators. Following-up with national communicators is an essential part of the work, with copies of all correspondence to the national commodity leaders. After in-country visits it is simply an act of demonstrating that one cares, by asking how the work is going, or by sending a supporting letter with the materials you promised to send, or doing a bit of research for them and forwarding the information.

Summary

Finding the right kind of communicator for the job within the context of international agricultural development is not an easy task. How well one does at this depends largely on our own ability to clearly articulate the objectives of our own institutions and identify the specific tasks required of the communicator. In this process, we must also recognize that the role of the communicator is changing. In addition to the traditional tasks assigned to positions of this type, we must now be more aware of publicity for international agricultural research as well as more sensitive to the needs of national programs. The communicator must be an active player on many teams to assist that ultimately improved technology reaches farmers.

References

1. Agricultural Development Council, Inc. and International Rice Research Institute. Communication Responsibilities of the International Agricultural Research Centers. A summary of the recommendations made at the conference on Communication Responsibilities of the International Agricultural Research Centers. Manila: International Rice Research Institute, 1980.

2. Byrnes, F.C. Unpublished evaluation report of UNDP GLO/79/013 and GLO/082/002, Technology Transfer on Root and Tuber Crops, Phases I and II. Lima: International Potato Center, 1986.

3. Consultative Group on International Agricultural Research. Unpublished report of the Technical Advisory Committee on the Study of Training in the CGIAR System. TAC Secretariat. Rome: Food and Agriculture Organization of the United Nations, 1986.

4. Hargrove, T.R., Editor and Head, Communication and Publications, International Rice Research Institute (IRRI). Personal communication. 1987.

5. Harris, T.D., Science Writer/Editor and Publications Coordinator, Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT). Personal communication. 1987.

6. Johnson, E.L. "Summary and Comment" in Knowledge Transfer in Developing Countries: Status, constraints, outlook edited by J.B. Claar and L.H. Watts. Urbana: International Program for Agricultural Knowledge System, 1983.

7. Sulzberger, E., Information Specialist, Consultative Group on International Agricultural Research (CGIAR). Personal communication. 1987.

8. Swanson, B.E. "The Role and Contribution of Agricultural Extension in Agricultural Development" in Knowledge Transfer in Developing Countries: Status, constraints, outlook edited by J.B. Claar and L.H. Watts. Urbana: International Program for Agricultural Knowledge Systems, 1983.

9. Technical Advisory Committee. Unpublished report of Research Priorities for the Consultative Group on International Agricultural Research. TAC Secretariat. Rome: Food and Agriculture Organization of the United Nations, 1986.

Why U.S. Foreign Aid? What are the Relationships to Universities and U.S. Agriculture? A Communications Task

by

Duane Acker, Agency Director for Food and Agriculture
U.S. Agency for International Development

While serving as President at Kansas State University, Vice Chancellor at the University of Nebraska, or Dean of Agriculture at South Dakota State University, I enjoyed working with the state legislatures. With rare exception, members of the legislature wanted to support universities, research, and extension.

When appropriation bills reached the House or Senate floor without a key item our regents had sought and that was intensely needed, we often urged a friendly legislator to add it by floor amendment. We usually won. Universities are something legislators, and those who vote for them, are generally for.

As I have watched the consideration of foreign aid by Congress in recent years, however, I have noticed that most years the foreign aid appropriation bill does not come to the floor of the House or Senate. Foreign aid spending authority is usually contained in a broad "continuing resolution" passed by both houses. Supporters of foreign aid often appear to prefer it that way.

This suggests that for many members of Congress, though they both understand both the need for and wisdom of foreign aid, voting for a foreign aid appropriation bill may not win many votes back home.

I'm here to speak about communicating the need for foreign aid. This is the 25th anniversary of our development aid agency, A.I.D. And development aid appropriations are in trouble. Foreign aid needs a domestic constituency, and that constituency needs to be as well informed as possible.

The Agency for International Development functions as an allied unit of the U.S. State Department. It has mission offices and staff in about 70 countries. These are grouped in and administratively supported by three regional bureaus, Africa, Latin American-Caribbean, and Asia-Near East. The Science and Technology bureau provides research and technology support to missions and their programs. The Food and Voluntary Assistance Bureau handles Food for Peace, cooperative work with private voluntary organizations such as CARE or Helen Keller International, and grants to American schools and hospitals abroad. The Private Enterprise Bureau helps involve the private sector both of the target country and of the United States.

SOME QUESTIONS

When I departed Kansas State University to join A.I.D., several long-time friends asked, "Why help developing countries? They are stealing our exports. Why finance competition when U.S. exports are in difficulty?"

For presentation at the joint meeting of the Association of U.S. University Directors of the International Agricultural Programs and the Agricultural Communicators in Education, University of Rhode Island, June 2-4, 1987

My answer was, in part, "I'm going to A.I.D. to help build future exports. The explosive growth of U.S. farm exports in the 1970s was to a significant extent the result of earlier development efforts in Third World countries. The fact that our exports are in trouble today should not prevent us from recognizing the successes of past development investments and the potential for future successes".

I also shared with them that my roots and my professional investments are in the agriculture of five midwestern states that depend heavily on exports. I want to help on the export issue.

Citizens of your state may ask why your university is involved in international projects. I hope you will tell them. I hope you are in them because you see internationalism throughout your state's agriculture and the need for graduates and clientele to think internationally. I hope you are in them to broaden the perspective of your faculty. I hope you are in them to bring genetic material and technology from international efforts back to your state to help your agriculture compete.

hope you are not in them because of the overhead funds or just to say that you have some international programs.

Then, I hope you will tell your clientele some of your reasons.

I want to share with you some of the benefits of development aid that should help build our constituency.

To begin with we must acknowledge that U.S. Agricultural Exports are in difficulty. So are exports of U.S. machinery, aircraft, and other products. We all recognized during the 1960s that we were becoming more dependent on exports---perhaps one should say vulnerable---as proportion of annual corn, wheat, and soybean crops going into export rose from 20 to 50 or more percent.

Many factors have contributed to the decline in exports of U.S. commodities since 1980, including:

1. Prolonged high value of the dollar.
2. Reduced economic growth.
3. Heavy debt load of low and middle income countries.
4. Increased production in Australia, Argentina, Canada, EEC countries, and China (18 to 60 percent since 1975).
5. High farm subsidies in EEC countries.
6. U.S. grain prices above world levels -- 1981 farm bill.
7. Import duties and other constraints.

But U.S. agriculture would be worse off today were it not for the effectiveness of past development efforts.

Both developed and developing countries increased their imports of U.S. agricultural products between 1974 and 1985. The sharp drop after 1981 is noted, but the net increase between 1974 and 1985 was larger, both percentage-wise and in dollars, among the developing countries.

U.S. Agricultural Exports, 1974-85

	to Developing Countries	to Developed Countries
1974	$ 7.61B	$ 13.95B
1981	$ 18.24B	$ 25.54B
1985	$ 12.92B	$ 18.27B
Increase	$ 5.3 (70%)	4.3B (31%)

Kellogg, et al 1986

There is also evidence that those countries which increased their per capita production of agricultural commodities the most rapidly also increased their purchases of U.S. agricultural products the most rapidly.

Let me describe an impressive success story. In 1954, South Korea was an economic basket case. The United States helped small farmers become more productive. We helped develop short-strawed rice varieties that would use fertilizer and produce more grain. We helped strengthen the extension system. We helped build universities. We helped develop government pricing policies that would stimulate food production by small farmers. It took a long time. But look at the results!

U.S. Agricultural Exports to South Korea,

	Ave 71-73	Ave 80-83
Govt. Supported	$ 171M	--
Commercial	$ 197M	$1.7B

Per capita agricultural production increased 27%

Kellogg, 1985

There are other country successes; there are also some disappointments and failures.

There are five principles that apply to developing Third World or developing countries, which are, at the same time, very understandable reasons for developing the agricultural base of those countries:

1. Poor people don't buy much. Only those with cash or good credit are good customers.
2. The most rapid progress in the economic growth of developing countries is usually made when that portion of the private sector employing the most workers is strengthened and the productivity of those people is increased. In most developing countries, 65 to 85 percent of engaged workers work in agricultural production. Therefore, development of agriculture is an essential first step to total country development, to increase gross national product, wealth, or purchasing power.

3. Improved nutrition improves productivity. It enhances energy level, ingenuity and motivation. Improved nutrition usually occurs first closest to where the food is produced. Families on the small farms that produce more eat better. There usually results more product to market. The broader population then benefits. That broader population becomes productive, in retailing, manufacturing, or services. Purchasing power grows, generates demand for both food and non-food items.
4. As income goes up, diets diversify. With higher income, people want meat. This applies to the rural family and also to the total population. Meat production requires large volumes of coarse grains and protein sources. (These previous three principles are the reasons for the phenomenon I earlier described, that those developing countries which increased per capita food production the most rapidly, increased their imports of U.S. agricultural products most rapidly.)
5. As countries develop, they increase both imports and exports. Exports are essential, to help finance imports.

I believe U.S. farmers will understand and accept these principles.

TECHNOLOGY FOR U.S. AGRICULTURE

There is another relationship of our development aid effort to U.S. agriculture --- the flow of genetic material and technology from developing countries and international research efforts. U.S. agriculture must maintain and enhance its world-wide competitiveness, and for that to occur, this flow is extremely important.

Following are a few examples of this flow.

1. Most of the genes that provide resistance to downy mildew, head smut, anthracnose, charcoal rot, and grain rot in grain sorghum hydrids grown on the U.S. Great Plains came from native sorghum materials in Africa and India via collaborative research involving African, Indian, and U.S. research insitutions and financed in part by A.I.D.

2. The genetic source of golden nematode resistance in U.S.-grown potatoes came from Peru.

3. Genetic resistance to leaf blight, rust, and dwarf mosaic in U.S. corn hybrids have come largely from tropical germ plasm.

4. A small ruminant collaborative research project financed by A.I.D. and involving U.S. universities and institutions in developing countries has established that the arthritis-encephalitis virus of goats is easily spread through colostrum. It has been common practice to pool colostrum in both foreign and domestic goat herds in order to provide enough for all kids. Colostrum from infected goats thereby spread the virus to all of the next generation.

5. The International Laboratory for Research on Animal Diseases at Nairobi, Kenya, financed in part by A.I.D., is located in Africa largely because of the presence and seriousness of tick borne diseases. By concentrating on two major diseases, it has been able to elucidate genetic and cellular pathways to achieving immunity, providing principles and mechanisms for animal selection and breeding systems, as well as for development of vaccine systems, that can be applied to livestock disease control in the U.S.

SUMMARY

Most of your two-day program has been devoted to the significance, systems and techniques of communications within the agricultural development process. I commend you for this constructive agenda, and especially for arranging the joint meeting of ACE and AUSUDIAP. In addition to the focused presentations and discussion, this joint meeting lets program directors establish continuing links with communication specialists and lets the agricultural communicators gain fuller acquaintance with development efforts in which U.S. agricultural faculties are involved.

Because most of this program has been devoted to communication within the development process, I have directed my thoughts to communications about the development process --- the reason for it, the value of it, the rationale that permits political support for it, the benefits that accrue, and some of the risks or consequences.

Such communications are essential, with taxpayers, legislators, agency personnel, educators, bankers, farmers, merchants, and nearly all categories of citizens, if continued development of the Third World is to occur with any reasonable degree of speed and effectiveness.

All of us involved in development aid must be sure that we do our part in communicating its rationale and its benefits.

The evidence suggests strongly that it is in the long-term interests of the United States to continue its investment in development aid for Third World Countries.

Development aid is an investment:
a) in humanity
b) in country, region, and world stability
c) in helping maintain political friendships
d) in developing the economies of the Third World.

Of special importance to U.S. agriculture are 1) the positive impact on exports of this economic growth---POOR PEOPLE, OR COUNTRIES, DON'T BUY MUCH, and 2) the genetic material and technology that flows to U.S. agriculture as a by-product of development programs and that can help it compete worldwide.

We'll depend on you to aid the communication process.

W1429I:csm:5/20/87

INTERNATIONAL PROGRAMS AND AGRICULTURAL COMMUNICATORS WORKING TOGETHER: SUMMARY AND OVERVIEW

J. Lawrence Apple
North Carolina State University

I am very pleased that the leadership of ACE and AUSUDIAP have recognized the critical nature of communications in the technical assistance field as manifested by this joint conference. Hopefully this dialogue will foster improved communication of information relevant to Third World development and promote many new and innovative development education activities at the grass-roots level and in the political arena.

Eric Abbott pointed out in an earlier presentation that over time various disciplines have appeared or professed to hold the key to economic and social development in the Third World, but that in each instance such roles of presumed or apparent dominance has given way to other ideologies. I agree that the task of socioeconomic development in the Third World setting is complex and multidisciplinary and that it demands the collaborative input of many disciplines. However, I submit that the role of the communicators, now and in the years ahead, must be more prominent than in the past if we are to meet with success the challenges at hand, especially the challenge of development education. Never before has the lack of public understanding of the U.S. stake in the social and economic development of the Third World been so critical to continuation funding for development assistance by the U.S. Congress.

As to my role in providing a summary and overview of this conference, I must confess at the outset that I am not a communications expert. But I am very interested in a strengthened communications component for the international development enterprise. Many of you know that, as Chair of AUSUDIAP's Public Awareness Committee, I was involved with the inventory of development education activities in Title XII universities about 2 years ago. The study revealed that few Title XII institutions actually have in place a continuous, pro-active, and comprehensive public awareness program. If that were not true, perhaps much of the rhetoric of this meeting would not have been voiced.

But the rhetoric of this conference and elsewhere portends a clouded future for Title XII activities and uncertainty for the continuing involvement of Title XII universities in development assistance projects. The need for development education and for public understanding of the U.S. stake in the economic and social development of the Third World has never been greater.

This conference has addressed the communications needs associated with development assistance and research programs supportive of Third World agricultural development. It has identified many challenges, but it has also identified many public awareness or development education activities and the existence of resource materials and expertise that have broad application to the communications needs of all involved institutions and agencies. The information disseminated in this conference and the

opportunities for personal interaction should stimulate further collaboration and the exchange of materials and ideas. Those followup activities will be a further mark of its success.

We of AUSUDIAP are most appreciative of collaboration with our colleagues in ACE for the planning of this conference. I might have also said that this conference is timely. But in reality we should have held it 10 years ago, and we should have responded then to its challenges through strong collective action on our campuses, in our states, and in our nation; indeed, throughout the world. Let us hope that our belated efforts can still achieve the desired results, from the perspectives of the Title XII university community and from the perspectives of our international professional colleagues and the needy peoples of the Poor Countries.

I have developed a discussion outline as the basis for providing an overview of and drawing my conclusions from this conference. I shall make no effort to summarize the excellent presentations that you have been privileged to hear during the past two days. But the substance of those presentations fit into and dictate the discussion outline presented below under three major headings: (1) What should be communicated? (2) To whom should this information be communicated? and (3) How should it be communicated? My commentary on the elements of the outline are given in the boxes.

AN OUTLINE FOR DISCUSSION OF THE CONFERENCE

A. What should be communicated?

1. Technical information on international agricultural development from the full-range of development assistance projects and other relevant activities.

> Several speakers have confirmed that much has been learned over the past 25 years about the transfer of appropriate technology in the Developing Countries through the use of appropriate communications techniques. The international agricultural research centers (IARC's) have given much attention to this aspect of their programs.

2. Results from research on and technical/economic assessment of the development process and its complementarity to and/or competitiveness with the U.S. economy.

> The research and scholarship devoted to this area has been limited and inadequate. Although we have considerable information such as that derived by Earl Kellogg and the International Economics Division of the USDA, we have done too little to develop a good data base and the rationale that demonstrate convincingly the complementarities of development assistance to donor and recipient countries.

3. General information on the development needs of the Third World and the relevance of their development to the vested interests of the U.S. and to the Title XII universities.

> This area, generally characterized as development education or public awareness programs, has not been purused with vigor by the Title XII community. In fact there has been some reticence on the part of Title XII universities to give too much publicity to their international development activities because of concern that it may provoke negative reactions from commodity-interest and legislative groups.

B. **To whom should this information be communicated?**

1. Technical information basic to agricultural development should be communicated to:

   a. Targeted groups (in a technology transfer mode) within Third World nations.

> Obviously, technical information relevant to the development process in Third World nations must be communicated to the populations that need and which can utilize this information. This conference has demonstrated that much progress has been made in the science of communicating technical information to the user groups in the Third World. The IARC's and Title XII institutions have devoted much productive energy and research to this area.

   b. Peer groups on an intra- and inter-disciplinary basis in both the developed and Third World nations through appropriate journals and as special reports.

> Development assistance professionals have not contributed their full potential to the peer-reviewed scholarly journals reflecting their international development research, extension, and institution-building activities. Consequently, there is not an adequate interpretive record of development assistance activities in the literature. This void has detracted from the professionalism of this area of pursuit and has left us without a significant body of critically-interpreted knowledge based upon development assistance experiences. This deficiency is possibly basic to the lack of acceptance by large numbers of faculty (and administrators) of development assistance as an appropriate pursuit for their professional colleagues or for their university.

c. Donor agencies, especially through the CGIAR system.

The donor agencies should be better informed of the results from Title XII research and development assistance projects. The CGIAR-supported research network is highly respected among donor agencies based in part upon its very good record of the IARC's in reporting the results of their fundamental and applied research to a wide range of audiences, including the Third-World countries. The Title XII knows much more about IARC research programs than the reverse. Consequently, the universities should make a special effort to communicate research and development information to the relevant IARC's to complement the data base for their programs and to give greater visibility to the output of Title XII programs.

2. Results of research on and technological assessment of the development process to:

a. The international development community including donor agencies and the Title XII institutions through disciplinary journals and/or through special publications.

The Title XII institutions and donor agencies in general should give greater attention and support to research and scholarly studies of the development process in the Third World. These activities would expand the knowledge base applicable to technical assistance and would assist in identifying the key elements that determine success and/or failure of projects and programs. Assessment should be factored in as a component of all development projects.

b. Host country audiences.

This information should be generated collaboratively and shared with host country institutions and personnel. The host country planners should understand better the consequences of development assistance projects that are being implemented in their countries, a large portion of which are currently being funded with loan funds. The focus here is primarily on the impact of development assistance projects on the recipient countries in contrast to activities described in #3 below which focuses primarily on the impact of such bilateral and multilateral investments upon the donor countries.

3. Interpretive analyses (based upon research and technological assessment of development assistance) that illustrate positive (benefits) and/or negative (trade-off) relationships to U.S. interests.

> The Title XII institutions must give more attention to the development of these "interpretive analyses" of the economic and social consequences of development assistance investments by the U.S. Do development assistance investments also bring positive economic benefits to U.S. or is the impact negative? Do some projects have both positive and negative aspects? Many target groups as cited below should be exposed to this type of "development education" experience. And we cannot just concentrate on the positive economic benefits that may potentially accrue to the U.S. through development assistance -- our public awareness programs must also recognize that some negative trade-offs are involved. This information should be communicated on a sustained basis to the groups cited below.

a. Staff of development agencies.

b. Faculty and students in Title XII institutions.

c. Political leadership - state and national.

d. Agricultural community at-large and especially to agricultural organizations.

e. Civic, church, and other organized groups.

f. Public-at-large.

C. **How should this information be communicated?**

> Communications mode has not been a focus of the conference but is basic to all our considerations for improved communications within international programs. The outline below was developed by the Public Awareness Committee of AUSUDIAP in connection with its survey of Title XII institutions. If our efforts in this area are to be met with success over time, each Title XII institution must have a deliberately planned and proactive communications program that is continuous and comprehensive. These programs must become "institutionalized" components of each land-grant university's communications effort.

1. DIRECT

-Seminars

-Meetings (formal and informal; campus-wide or departmental; involving groups or one-on-one discussions)

-Workshops and conferences

2. ADMINISTRATIVE

-Evidenced by establishment of appropriate units and their standing within the administrative structure.

-Mission and policy statements.

-Other public manifestations of commitment such as President Lavery's address in this conference.

3. CAMPUS COMMUNICATIONS

-Newsletters

-Campus newspaper

-Departmental announcements

-Bulletins, brochures, special reports

4. PUBLIC MEDIA

-Newspapers (news releases)

-Radio

-Television

5. SPECIAL LECTURERS/SPEAKERS

-Guest speakers for special events

-Faculty with international experience (speakers bureau)

-International visiting scholars and students

6. INTERNATIONAL PUBLICATIONS

-Public relations brochures

-Special reports based upon projects, and international issues for both technical and general audiences

In closing, I would like to observe that we of AUSUDIAP and ACE need to merge our interests in international program communications with that of the CGIAR system described at this conference by Manuel Pina of CIP. And it is clear that the AUSUDIAP and ACE linkage must continue because it has already had a very significant impact since that initial effort in 1985. And although Eric Abbott pointed out appropriately that no single discipline holds the key to economic and social development, I submit that the role of the communicators in the years ahead must be more prominent than in the past if we are to meet with success the challenges at hand.

(40-RI)

MINUTES OF THE AUSUDIAP ANNUAL MEETING

June 3 and 4, 1987
Galilee, Rhode Island

The 23rd annual meeting of AUSUDIAP was called to order by Chairman Donald Isleib at 11:05 a.m., June 3. The agenda for the meeting was adopted.

Minutes of 1986 Annual Meeting. Upon review by the membership, the minutes of the 1986 annual meeting, held at Fort Collins, Colorado, were approved as circulated.

Secretary-Treasurer's Report. Mr. McCowen provided the following report on the association's finances:

Balance reported 31 May 1986		$7,316.34
Income	$1,939.56	
Expenses	4,145.61	
Balance reported 30 April 1987		$5,110.38

Of the income received, approximately 53 percent was generated for membership dues. The proceeds from the 1986 annual meeting generated 30 percent and interest on the association checking account comprised most of the 17 percent.

Publication No. 5 accounted for approximately 54 percent of the expenses, with 25 percent being used for postage and printing, 12 percent for the deposits for the 23rd annual meeting, and 9 percent for service charges and miscellaneous costs.

Mr. McCowen noted that the association membership list contained 250 names of whom 164 had paid the 1986-87 dues.

Committee Reports

The following reports of standing and special committees of the association were delivered by committee chairs or their designates.

Nominations Committee, P. Howard Massey. Mr. Massey reviewed the slate of candidates for officers for the 1987/88 year. Earl D. Kellogg (Arizona/CID) and James Sentz (Minnesota) contested for the vice-chair position. Howard F. Massey (Kentucky) and Charlotte Roderuck (Iowa) were candidates for the director's position. Thomas A. McCowen (Illinois) was unopposed for the two-year term of secretary-treasurer.

The winners were Messrs. Kellogg and Massey. An expression of thanks to all of the candidates on behalf of the association was offered by H. P. Massey.

The AUSUDIAP Executive Board for 1987-88 will be comprised as follows: Chairperson, Eugene W. Adams, Tuskegee; Vice-Chairperson, Earl D. Kellogg, Arizona/CID; Secretary-Treasurer, Thomas A. McCowen, Illinois; Directors, Violetta B. Cook, Texas A & M University; Donald R. Isleib, Michigan State University; Herbert F. Massey, Kentucky, Tom W. Westing, Arkansas.

Program Committee, E. W. Adams. Mr. Adams briefly recognized the Program Committee for the 23rd annual meeting. He complimented the local arrangements committee for their excellent work. Mr. Adams reported that the University of Arkansas has invited the association to hold the 24th annual meeting at Fayetteville. The invitation is made in conjunction with Winrock International. The suggested dates are June 7-9, 1988. Winrock International has volunteered to host associated meetings at their headquarters near Morrilton, Arkansas, on June 6 and/or June 10. The invitation was accepted by consensus.

Earl Kellogg will be the chair of the Program Committee for the 24th annual meeting. Tom Westing will be the liaison person for local arrangements. Mr. Kellogg invited input from the membership on ideas for program themes, session topics, or individual speakers.

Legislative Committee, Ken Shapiro. James Cowan, reporting for Ken Shapiro, suggested that during the transition from AUSUDIAP/CIAP institutional leadership to the formation of the International Division within NASULGC and International Commission on Operations and Policy within the Division of Agriculture, the roles of AUSUDIAP legislative committee and the CIAP budget and legislative committee will finally be defined. The legislative committee for ICOP will be integrated into the budget and legislative process of NASULGC. This should free the association's legislative committee to determine its own agenda. An objective will be for close liaison between the ICOP and AUSUDIAP legislative committees; however, Mr. Cowan stressed that the two agendas do not have to be identical.

Public Awareness Committee, J. L. Apple. Mr. Apple reviewed previous plans to publish AUSUDIAP series No. 6, a monograph on public awareness. He noted the recent publication of the Kellogg-Paarlberg-Schuh papers and other excellent materials as part of the CICHE project. Rather than replicating these models, Mr. Apple suggested that AUSUDIAP take the lead in the development of a promotional handout-type publication delineating the reciprocal benefits of international involvement of universities. He suggests that a three- to four-fold illustrated handout addressed to a general audience combining text and photographs.

Contractual Relations, John Shields. Mr. Shields reported the committee has been reviewing current relationships among and between the university community, private sector, and government. The committee is still in the process of gathering information and no schedule for interim or final reporting was given.

Jim Collom reported that a video tape set on "Contracting for Non-contracting Personnel," with accompanying workbook, will be available on a loan basis soon. These tapes cover eight half-hour sessions of orientation and training to AID contracting. The tapes can be copied by borrowers for continued use on their campus or in their organizations.

Education and Training, Larry Zuidema. Mr. Zuidema reported on the renewed interest by USAID on issues relating to cost reduction. Housing costs and the time required to completed degrees are emerging issues. USAID has distributed a memo to missions containing guidelines for evaluating participant cost component of projects. This includes the use of a standardized budget format for training costs. In referring to the standardized budget, Mr. Zuidema indicated that the format provides opportunities for universities to document the cost of supporting participant training programs. A major concern to the Education and Training Committee was the inclusion of tuition cost in the overall training budget. The committee feels that, given the wide disparity of tuition costs between private and public institutions, the inclusion of tuition costs would be prejudicial to the chances of private institutions being judged cost competitive. He indicated that his committee had prepared a resolution to be offered at the appropriate time in the program.

Publication Committee, H. P. Massey. Mr. Massey reported on the recent output of the association. Five publications have been issued in the AUSUDIAP series. Of those, the stock of Nos. 1, 2 and 3 is essentially depleted. No. 4, guidelines for universities in negotiating contracts, and No. 5 dealing with guidelines for interuniversity cooperation and participant programs, are available from the association's secretary-treasurer.

The joint ACE/AUSUDIAP publication "International Agricultural Programs in Agricultural Communications," proceedings of a 1985 workshop, is available through Mason Miller/Winrock International.

Two items of special interest were approved for reproduction and distribution to AUSUDIAP membership. They were: Agricultural Institutions and Economic Development: Helping Others to Help Themselves and testimony offered by legislative committee chairperson Kenneth Shapiro on behalf of NASULGC to the Senate Committee on Foreign Relations.

Mr. Massey reported on two additional concepts that have been suggested for future publication support. The first would be to concentrate on the collection of articles (similar to the Kellogg-Paarlberg-Schuh papers) on the importance of agricultural development in third world countries to enhance growth in U.S. exports; the second would be a publication on the importance of human resource development and institutional development in third world countries.

Ad Hoc Committee on China, H. Dean Jansma. Mr. Jansma reported on his committee's survey. They looked at the issue of PRC practice of providing support to Chinese scholars for only the first year of their program, leaving the balance to be funded by U.S. institutions or by the student. The PRC looks at this process as (1) an incentive to the students

to excel and (2) as a good investment even if the training is curtailed at the end of the year for lack of additional funding. Dr. Jansma noted that the PRC students have had good success in arranging onward funding. The number of PRC scholars seems to be increasing at an increasing rate. The PRC appears to be following an implicit policy of exploiting this model to the greatest extent possible, opening channels to new schools as old channels dry up.

Ad Hoc Special Committee on the Future, Ken Shapiro. Mr. Isleib, reporting for Chairperson Shapiro, distributed a summary report of the futures planning committee. The report included the following recommendations:

1. That the purpose of AUSUDIAP should be to stimulate ideas, studies, and information relevant to agriculture and development from the international perspective with reference to both domestic and international activities.

2. That AUSUDIAP should stimulate scholarship and debate on issues of development and strategic planning.

3. That AUSUDIAP should conceive, examine, and evaluate alternatives to the existing U.S. delivery system for development assistance.

4. That AUSUDIAP should study, evaluate, and recommend revisions as appropriate in processes used to mobilize university resources for development assistance.

5. That AUSUDIAP should seek to expand its membership and include persons from the private sector, PVOs, IRACs, USAID, World Bank, and foundations.

6. That AUSUDIAP engage in conception, implementation, and evaluation of training needs, techniques, and programs essential to the development process.

7. That AUSUDIAP maintain an annual meeting format with special attention to relevant and timely themes.

8. That AUSUDIAP continue to public proceedings of annual meetings, the newsletter, and special report.

9. That AUSUDIAP increase membership dues to $25.00 per year to create a resource base to pay costs as necessary for speakers at annual meetings, publications, and specially commissioned studies.

10. That AUSUDIAP focus its resources on professional interest in establishing an independent agenda based on its professional programs. Traditionally, AUSUDIAP should seek to engage itself institutionally and through individual members in the activities of NASULGC and other internationally oriented agencies and institutions.

11. That AUSUDIAP adopt a name more reflective of the organizations membership and activities.

Mr. Isleib asked the membership to review the report carefully and be ready to discuss issues in the Thursday afternoon session.

Other business

Mr. Okezie suggested that the Executive Committee consider different ways of selecting venues for annual meetings. One possibility would be to revive the practice used earlier in the association's life of linking the location of the annual meeting to the institution of the incoming chairperson.

The meeting was recessed at 11:53 a.m. until 1:30 p.m. Thursday, June 4.

During the President's luncheon June 3, the Awards Committee chairman, Vernon Larson, presented the association's Distinguished Service Award to E. Paul Creech, Margaret Fahs, and Erven J. Long.

The annual meeting reconvened at 1:55 p.m. Thursday, June 4, with Mr. Isleib in the chair. The session was devoted to an examination and discussion of the recommendations of the Ad Hoc Special Committee on the Future, with Chairperson Ken Shapiro moderating. In his opening remarks, Mr. Shapiro suggested that the membership consider his recommendations as a part of a process that began approximately a year ago with the naming of the futures committee. He asked the membership to give oral or written responses to him for inclusion in a report to be delivered to executive board at the time of the land-grant meetings. The recommendations of that report will be considered by the membership at the 24th annual meeting.

Mr. Shapiro suggested grouping the issues into five major areas: (1) the legislative role of the association, (2) the nature of the annual meeting, (3) the nature of the membership of the association, (4) the nature of the subject-matter focus of the association, (5) what should be the name of the newly focused association. Mr. Shapiro stressed that neither he nor his committee members expected to come to closure on any of the issues presented at the meeting but did value the input of the membership highly.

Representative comments received from the floor included the following:

— we needed a forum to discuss the philosophy and tradecraft of development activities.

— push for an expansion of university membership to go beyond administrators, to include more practitioners.

— structure association activities so as utilize the broader talents of an expanded membership; perhaps AUSUDIAP focus on practice with ICOP focusing on policy.

— possibly concentrate on management of technical assistance activities.

— a broader membership base may promote greater/stronger interaction with the university community.

— current membership illustrates that we attract a broad based group of people who want to associate with us.

— keep the acronym AUSUDIAP; it's the work or program that drives any organization.

-- there is a perception that the stress of the words U.S. university in the AUSUDIAP title may inhibit membership from U.S. government organizations; a new name or new orientation may encourage more AID membership.

-- institution building involves interrelationships; agricultural development impacts on environmental management issues.

Mr. Shapiro concluded by suggesting a number of themes for future meetings.

In addition, the membership took action on three proposed resolutions: a joint resolution of appreciation to the University of Rhode Island, a resolution on training cost analysis, and a joint AUSUDIAP/ACE resolution on future collaboration. The text of these resolutions are appended to the minutes.

The meeting adjourned at 5:05 p.m.

Thomas A. McCowen
Secretary-Treasurer

JOINT RESOLUTION OF APPRECIATION TO THE UNIVERSITY OF RHODE ISLAND

Whereas, the University of Rhode Island has provided in an informal and relaxing setting a collegial atmosphere, professionalism and hospitality for this the 23rd annual conference of AUSUDIAP meeting jointly with ACE;

Whereas, these meetings have been conducted in a professional ambience that has led to the productive exchange of information, concepts and opinions; and

Whereas, the schedule has been maintained productively;

Now Therefore Be It Resolved, that the membership of AUSUDIAP and ACE here assembled, by unanimous acclamation, hereby express their appreciation to the University of Rhode Island as represented by Dean Gerry Donovan and Director Don McCreight, with the very able assistance of conference coordinator Elizabeth Miller supported by the ICMRD staff, and to Terry McGovern for her special attention in arranging and making the spouses program and success.

JOINT AUSUDIAP/ACE RESOLUTION ON FUTURE COLLABORATION

Whereas, AUSUDIAP and ACE have a memorandum of cooperation pursuant to their mutual interests of enhancing the effectiveness of international development;

Whereas, this meeting in Rhode Island has been a useful and productive forum for interaction between AUSUDIAP and ACE members; and

Whereas, results of this meeting have revealed many areas of potential collaboration;

Now Therefore Be It Resolved that the two associations continue to collaborate formally and informally, toward the goal of strengthening international agricultural development.

That we continue to be involved in international agricultural development and the internationalization of our U.S. land-grant universities' curricula, faculties, extension staffs, and students, and

That AUSUDIAP and ACE collaborate on taking the message of the importance of international development and international agricultural research to the U.S. citizenry.

RESOLUTION ON TRAINING COST ANALYSIS

Whereas, USAID has issued a Training Cost Analysis system to be used in bidding on training and education components of RFPs;

Whereas, the system requires the detailing of all costs for proposal evaluation purposes;

Whereas, the university community is interested in effective degree and nondegree training; and

Whereas, the institutional variation in the cost of tuition often reflects factors other than those related to effective and quality training;

Now Therefore Be It Resolved, that AUSUDIAP requests USAID to eliminate tuition costs from consideration in awarding USAID contracts by instructing all bidders to use a uniform rate for bidding purposes only.

AUSUDIAP/ACE Conference

June 2 - 4, 1987

PARTICIPANTS

Eric Abbott
Dept of Mass Communications
College of Agriculture
204B Hamilton Hall - JIMC
Iowa State University
Ames, IA 50011
(515) 294-0492

Eugene Adams
Kresge Center
Tuskegee University
Tuskegee, AL 36088
(205) 727-8953

Kathleen Alison
USDA/OICD/ITD
McGregory Building, Room 240
2121 K Street, NW
Washington, DC 20250

Bernadette Allard
111 Caudler Hall
University of Georgia
Athens, GA 30602
(404) 542-7889

Susana Amaya
Communications and Information
CIAT
Apartado 6713
Cali
COLOMBIA
57-3-675050

Chris Andrew
International Ag Programs
3028 McCarty Hall
University of Florida
Gainesville, FL 32611
(904) 392-1965

Mary Andrews
Intl Extension Training Program
Michigan Cooperative Extension Service
48 Agriculture Hall
Michigan State University
East Lansing, MI 48824
(517) 355-0115

J. Lawrence Apple
Office of International Programs
209 Daniels Hall
North Carolina State University
PO Box 7112
Raleigh, NC 27695-7112
(919) 737-2665

Mary Ida Baca
Center for International Programs
Box 3567
New Mexico State University
PO Box 30001
Las Cruces, NM 88003-0001
(505) 646-4761

Thomas Bare
Agricultural Comm Center
South Dakota State University
PO Box 2231
Brookings, SD 57007
(605) 688-4187

Pat Barnes-McConnell
200 International Center
Michigan State University
East Lansing, MI 48824
(517) 355-4693

Daniel Bigbee
Dept of Animal Science
225 Keim Hall
University of Nebraska
Lincoln, NE 68583
(402) 472-3025

Louis Boyd
College of Agriculture
201 Conner Hall
University of Georgia
Athens, GA 30602
(404) 542-3390

John Brien
Faculty of Agriculture
University of Sydney
Sydney, New South Wales 2006
AUSTRALIA

Ronald Brown
International Programs
Mississippi State University
PO Box 6342
Mississippi State, MS 39762
(601) 325-3204

Stephen Brush
International Agricultural Development
University of California
Davis, CA 95616
(916) 752-1926

Francis Byrnes
11789 Indian Ridge Road
Reston, VA 22091
(703) 860-9167 or 525-9430

William Carruth
101 Packard Hall
Tufts University
Medford, MA 02155
(617) 381-3417

Neil Caudle
North Carolina State University
PO Box 7603
Raleigh, NC 27695
(919) 737-3173

Linda Childress
International Visitors Office
University of California
Davis, CA 95616
(916) 752-0464

Ikbal Chowdhury
International Programs
202 New Memorial Hall
Lincoln University of Missouri
Jefferson City, MO 65101
(314) 681-5359

Winfrey Clarke
Virginia State University
Box 540
Petersburg, VA 23235

Royal Colle
Roberts Hall
Cornell University
Ithaca, NY 14850
(607) 255-2111

James Collom
Consortium for Intl Development
5151 East Broadway, Suite 1500
Tucson, AZ 85711-3766
(602) 745-0455

Violetta Burke Cook
International Agriculture Programs
Texas A&M University
College Station, TX 77843
(409) 845-2550

James Cowan
International Programs and Studies
NASULGC
One Dupont Circle, Suite 710
Washington, DC 20036-1191
(202) 778-0856

Brian Crawford
Intl Ctr for Marine Resource Development
126 Woodward Hall
University of Rhode Island
Kingston, RI 02881
(401) 792-2997

E. Paul Creech
1604 Terracewood Lane
Nacagdoches, TX 75961
(409) 569-6987 or 598-7977

Donald Crossan
Agricultural Experiment Station
133 Townsend Hall
University of Delaware
Newark, DE 19717
(302) 451-2501

L. Van Crowder
G022 McCarty Hall
University of Florida
Gainesville, FL 32611
(904) 392-1771

Joan Darrell
International Ag Programs
299 Coffey Hall
University of Minnesota
1420 Eckles Avenue
St Paul, MN 55108
(612) 624-6780

Allen Deutsch
International Research and Development
Oregon State University
Corvallis, OR 97331
(503) 754-2228

Samuel Donald
College of Agriculture
Alcorn State University
Lorman, MS 39096
(601) 877-6136

Gerald Donovan
College of Resource Development
114 Woodward Hall
University of Rhode Island
Kingston, RI 02881
(401) 792-2474

Donald Esslinger
1-98 Agriculture Building
University of Missouri
Columbia, MO 65211
(314) 882-7037

Duane Everrett
BIFAD
Room 5314A
Agency for International Development
2201 C Street, NW
Washington, DC 20523
(202) 647-8409

Margaret Fahs
NASULGC
One Dupont Circle, Suite 710
Washington, DC 20036-1191
(202) 778-0856

J. Edwin Faris
101B Barre Hall
Clemson University
Clemson, SC 29634-5201
(803) 656-3642

Macon Faulkner
Louisiana State University Ag Center
PO Box 25203
Baton Rouge, LA 70894-5203
(504) 388-4162

Scott Fedale
Agricultural Communications Center
College of Agriculture
University of Idaho
Moscow, ID 83843
(208) 885-6804

Frank Fender
USDA/OICD/IRAD
South Building
Washington, DC 20250
(202) 447-7967

Francille Firebaugh
210 Bricker Hall
190 North Oval Mall
Ohio State University
Columbus, OH 43210-1358
(614) 292-3821

William Flowers
Virginia Tech Extension Administration
336 Burruss Hall
Virginia Polytechnic Inst & State Univ
Blacksburg, VA 24061
(703) 961-6249

Homer Folks
232 Gentry Hall
University of Missouri
Columbia, MO 65211
(314) 882-5216

Thomas Galvin
West Virginia University
PO Box 6108
Morgantown, WV 26506-6108
(304) 293-2041

U. J. Grant
International Programs in Agriculture
139 Agriculture Hall
Oklahoma State University
Stillwater, OK 74075
(405) 624-5398

Clarence Gray
9945 Great Oaks Way
Fairfax, VA 22030
(703) 352-5895

H. Douglass Gross
North Carolina State University
PO Box 7620
Raleigh, NC 27695-7620
(919) 737-3309

Marilyn Guin
Oregon State University
PO Box 123
South Beach, OR 97366
(503) 867-3011

Richard Guthrie
College of Agriculture
108 Comer Hall
Auburn University
Auburn, AL 36849-4201
(205) 826-4608

David L. Hansen
433 Coffey Hall
University of Minnesota
St Paul, MN 55108
(612) 624-7290

David O. Hansen
Dept of Ag Econ & Rural Soc
Ohio State University
2120 Fyffe Road
Columbus, OH 43210
(614) 292-2822 or 6280

Delmar Hatesohl
MidAmerica Intl Agricultural Consortium
215 Gentry Hall
University of Missouri
Columbia, MO 65211
(314) 882-5598

James Henson
International Program Development
328 French Administration Building
Washington State University
Pullman, WA 99165-1034
(509) 335-2541

Reed Hertford
International Ag Food Prog
Cook College
Rutgers University
PO Box 231
New Brunswick, NJ 08903

Dan Hilleman
Lilougwe (C)
Department of State
Washington, DC 20520

Theodore Hutchcroft
Winrock International
Route 3
Morrilton, AR 72110
(501) 727-5435

C. Dennis Ignasias
International Programs Office
School of Agricultural Sciences
University of Maryland Eastern Shore
Princess Anne, MD 21853
(301) 651-2200, Ext 528

Donald Isleib
Institute of International Agriculture
324 Agriculture Hall
Michigan State University
East Lansing, MI 48824
(517) 355-0174

J. Dean Jansma
International Agriculture Programs
240 Ag Administration Building
Pennsylvania State University
University Park, PA 16802
(814) 863-0249

David Jenkins
North Carolina State University
PO Box 7603
Raleigh, NC 27695
(919) 737-2800

William (Jim) Jorns
International Agriculture Programs
108 Waters Hall
Kansas State University
Manhattan, KS 66506
(913) 532-5714

Robert Julian
International Agriculture Programs
College of Agriculture
University of Wyoming
PO Box 3354, University Station
Laramie, WY 82071
(307) 766-3194

Charles Kanyarusoke
Dept of Communications Media
321 Stouffer Hall
Indiana University of Pennsylvania
Indiana, PA 15705

Bryant Kearl
440 Henry Mall
University of Wisconsin
Madison, WI 53706
(608) 233-0674

Earl Kellogg
Consortium for Intl Development
5151 East Broadway, Suite 1500
Tucson, AZ 85711-3766
(602) 745-0455

James King
103 ACB
University of Nebraska
Lincoln, NE 68583-0918
(402) 472-3025

James Kirkwood
AIVA Tabor Ag Building, Room 102
Fort Valley State College
PO Box 5413
Fort Valley, GA 31030
(912) 825-6328 or 8178

Lance Klase
Golden Transfer
PO Box 907
111 South Pratt Parkway
Longmont, CO 80502-0907
(303) 776-3882

Bob Kleis
BIFAD
Agency for International Development
5314 New State Building
Washington, DC 20523
(202) 647-9048

Gilbert Kroening
International Agriculture - Room 117
Southern Illinois University
Carbondale, IL 62901
(618) 536 7727

Vernon Larson
Waters Hall
Kansas State University
Manhattan, KS 66506
(913) 532-5714

William Levine
SECID
Suite 704
1612 K Street, NW
Washington, DC 20006
(202) 429-1804

James Marcum
Center for International Agriculture
116 Stockbridge Hall
University of Massachusetts
Amherst, MA 01003
(413) 545-2890

Mason Marvel
International Programs
208 Samford Hall
Auburn University
Auburn, AL 36849-3501
(205) 826-5766

Herbert Massey
N-324 Ag Science Center, North
University of Kentucky
Lexington, KY 40506-0091
(606) 257-1711

P. Howard Massey
International Development Office
1060 Animal Sciences Building
Virginia Polytechnic Inst & State Univ
Blacksburg, VA 24061
(703) 961-6338

Harold Matteson
Center for International Programs
Box 3567
New Mexico State University
PO Box 30001
Las Cruces, NM 88003-0001
(505) 646-3199

Ellen Maurer
2657 Fitchrona Road
Verona, WI 53593
(608) 845-7164

Charles McCants
Soil Management DRSP
North Carolina State University
PO Box 7113
Raleigh, NC 27695-7113

Thomas McCowen
International Agriculture
113 Mumford Hall
University of Illinois
1301 West Gregory Drive
Urbana, IL 61801
(217) 333-6420

Donald McCreight
Intl Ctr for Marine Resource Development
126 Woodward Hall
University of Rhode Island
Kingston, RI 02881
(401) 792-2479

J. Wendell McKinsey
MidAmerica Intl Agricultural Consortium
215 Gentry Hall
University of Missouri
Columbia, MO 65211
(314) 882-4413

Marge Metevier
325 Linton Hall
Michigan State University
East Lansing, MI 48824
(517) 355-4480

Mason Miller
Winrock International
Route 3
Morrilton, AR 72110
(501) 727-5435

John Moore
International Programs
College of Ag and Life Sciences
Symons Hall
University of Maryland
College Park, MD 20742
(301) 454-6407

Kathleen Ann Moran
Academy for Educational Development
1255 23rd Street, NW, 4th Floor
Washington, DC 20037
(202) 862-1921

Michael Morrissey
Intl Ctr for Marine Resource Development
126 Woodward Hall
University of Rhode Island
Kingston, RI 02881
(401) 792-2997

McKey Montby Mphepo
Malawi Ministry of Agriculture
PO Box 594
Lilougwe
MALAWI

John Nicholaides
International Agriculture
113 Mumford Hall
University of Illinois
1301 West Gregory Drive
Urbana, IL 61801
(217) 333-6420

Michael Nolan
International Programs
2-69 Agriculture
University of Missouri
Columbia, MO 65211
(314) 882-2745

Paul Nordstrom
International Programs
Administration Building
South Dakota State University
Brookings, SD 57007-2298
(605) 688-4111

Onuma Okezie
International Programs
Carver Complex, South, Room 104
Alabama A&M University
PO Box 579
Normal, AL 35762
(205) 859-7377

Manuel Pina
International Potato Center
Apartado 5969
Lima
PERU
366920 or 354354

Hugh Popenoe (unable to attend)
International Programs
3028 McCarty Hall
University of Florida
Gainesville, FL 32611
(904) 392-1965

Howard Ray
Academy for Educational Development
1255 23rd Street, NW, 4th Floor
Washington, DC 20037
(202) 862-1927

Gus Ridgel
Southern University
Southern Branch Post Office
Baton Rouge, LA 70813-2004
(504) 771-5150

Charlotte Roderuck
World Food Institute
102 EO Building
Iowa State University
Ames, IA 50011
(515) 294-0370

Jose Rodriguez-Acevedo
International Programs, College Station
College of Agricultural Sciences
University of Puerto Rico
Mayaguez, PR 00708
(809) 834-3413

Camilla Romund
300 Hotz Hall
University of Arkansas
Fayetteville, AR 72701
(501) 575-6857

Larry Rose
International Transportation Network
1000 Villa Avenue
Villa Park, IL 60181
(312) 279-0046

John Rowntree
International Programs
College of Ag and Life Sciences
3222 Symons Hall
University of Maryland
College Park, MD 20742
(301) 454-6407

Farhad Saba
Dept of Educational Technology
College of Education
San Diego State University
San Diego, CA 92182-0311
(619) 265-6138 or 6718

John Santas
International Agriculture
113 Mumford Hall
University of Illinois
1301 West Gregory Drive
Urbana, IL 61801
(217) 333-3638

J. T. Scott
International Programs
116 Curtiss Hall
Iowa State University
Ames, IA 50011
(515) 294-4866

James Sentz
293 Coffey Hall
University of Minnesota
1420 Eckles Avenue
St Paul, MN 55108
(612) 624-7737

Kenneth Shapiro
International Agriculture Programs
240 Aricultural Hall
University of Wisconsin
Madison, WI 53706
(608) 262-5748

John Shields
International Agriculture Programs
School of Ag Sciences
California State University
Fresno, CA 93740
(209) 294-2949

D. Richard Smith
International Education and Research
Ag Administration Building, Room 26C
Purdue University
West Lafayette, IN 47907
(317) 494-6876

William Spencer
Clark Building, Room B311
Colorado State University
Fort Collins, CO 80523
(303) 491-6051

Cynthia Steuart
Agency for International Development
Department of State, Room 4889
Washington, DC 20523
(202) 647-4213

R. E. Stevenson
Alabama Agricultural Experiment Station
Dept of Research Information
103 Comer Hall
Auburn University
Auburn, AL 36849-4201
(205) 826-4877

John Stovall
BIFAD
Agency for International Development
5314 New State Building
Washington, DC 20523
(202) 647-8532

Edward Sulzberger
CGIAR Secretariat
World Bank
1818 H Street, NW
Washington, DC 20433
(202) 334-8028

Earl Teeter
332-A Administration Building
USDA Extension Service
14th and Independence Avenue, SW
Washington, DC 20250-0900
(202) 447-3801

D. Woods Thomas
International Programs
26 Ag Administration Building
Purdue University
West Lafayette, IN 47907
(317) 494-8466

William Thompson
International Agriculture
113 Mumford Hall
University of Illinois
1301 West Gregory Drive
Urbana, IL 61801
(217) 333-5869

Susan Trulove
101 Hutcheson Hall
Virginia Polytechnic Inst & State Univ
Blacksburg, VA 24061
(703) 961-5863 or 7832

Kenneth Turk
259 Morrison Hall
Cornell University
Ithaca, NY 14853-0332

Glen Vollmar
International Programs Division
210 Agriculture Hall
University of Nebraska
Lincoln, NE 68583-0706
(402) 472-2758

Edward Vickery
SECID
300 Eastowne Drive
Chapel Hill, NC 27514
(919) 493-4551

Troy Wakefield
School of Agriculture
Room 114, Lawson Hall
Tennessee State University
PO Box 723
Nashville, TN 37203
(615) 320-3091

William Ward
Cornell University
640 Stewart Avenue
Ithaca, NY 14850
(607) 255-6500

Delane Welsch
International Agriculture Programs
299 Coffey Hall
University of Minnesota
1420 Eckles Avenue
St Paul, MN 55108
(612) 624-2273

Tom Westing
300 Hotz Hall
University of Arkansas
Fayetteville, AR 72701
(501) 575-6857

Keith Whigham
206 Curtiss Hall
Iowa State University
Ames, IA 50011
(515) 294-6950

Kim Wilson
324 Agriculture Hall
Michigan State University
East Lansing, MI 48824
(517) 355-0174

Raymond Woodis
Office of Ag Comm & Extension Education
65 Mumford Hall
University of Illinois
1301 West Gregory Drive
Urbana, IL 61801
(217) 244-2835

Dorothy Zakrajsek
International Trade & Development Office
216 Morrill Hall
University of Idaho
Moscow, ID 83843
(208) 885-8984

Larry Zuidema
International Agriculture
Roberts Hall
Cornell University
Ithaca, NY 14853
(607) 255-3035

AUSUDIAP/ACE GENERAL PROGRAM

Monday, June 1:

9:00 -5:00 pm	MIAC meeting: Terrace Conference Room
7:00 pm	AUSUDIAP Futures Committee Terrace Conference Room

Tuesday, June 2:

All sessions will be held in the Delft Room unless otherwise designated

7:00 - 9:00 am	JCARD/BIFAD Breakfast Meeting: Terrace Conference Room
9:00 - 12:00 noon	JCARD Meeting: Delft Conference Room
12:00 noon - 6:30 pm	REGISTRATION: Lobby
1:15 - 5:00 pm	Open Meeting of the Board for International Food and Agricultural Development: Delft Conference Room
1:45 - 3:oo pm	ISEC/USDA Task Force Report Terrace Conference Room John Shields, California State University
5:00 - 7:00 pm	ACE Special Session (get acquainted and determine focus for special sessions): Terrace Conference Room Presiding: Don Esslinger, Co-Chair, International Affairs Special Interest Group
5:00 - 7:00 pm	AUSUDIAP Executive Committee Meeting: Presiding: Donald R. Isleib, Chairman
7:00 - 9:00 pm	Seafood Reception: Galilee Beach Club

Wednesday, June 3

7:00 am	Continental Breakfast available in Delft Room
7:30 am	Registration continues in lobby
8:00 am	Welcome and Opening Presiding: Gerald Donovan, Dean and Director, The University of Rhode Island Convene 1987 Annual Meeting Donald R. Isleib, Michigan State University, AUSUDIAP Chairman

Bonnie Riechert, University of Tennessee,
ACE Vice President

Welcome
Edward D. Eddy, President
The University of Rhode Island

Local Arrangements:
Donald E. McCreight, Assoc. Dir.
International Center for Marine Resource Development

8:30 am

SYSTEMS AND COMMUNICATIONS

Presiding: Charlotte Roderick,
Iowa State University

What's Happened Since 1985 in St. Louis
Mason E. Miller, Winrock International

Necessary Elements for Development in Agriculture ar
Their Relevance to Communication
Eric Abbott, Iowa State University, and
Bryant Kearl, University of Wisconsin

Front End Variables in Planning Communication
Janet Poley, Development Program Management Center, Office of International Cooperation and Development, U.S. Dept. of Agriculture

10:00 am

BREAK

10:15 am

Report from Board for International Food and Agricultural Development Chair

Presiding: Donald Isleib, Associate Dean and Director, Institute of International Agriculture, Michigan State University
Address: William Lavery, BIFAD Chair

10:45 am

CONCURRENT SESSIONS

1. AUSUDIAP Annual Business Meeting
   Presiding: Donald R. Isleib, Chairman

2. ACE Special Session -- Communications Training Inventory and Needs:
   Terrace Conference Room

   Presiding: Kathy Alison, Co-Chair,
   International Affairs Special Interest Group

12:00	AUSUDIAP President's Luncheon: Tropical Terrace
	Presiding: Pat Barnes-McConnell, Michigan State University
	State of the Association Address Donald R. Isleib, AUSUDIAP Chairman
	Awards Presentations AUSUDIAP -- Vernon Larson, Kansas State University ACE - Francis C. Byrnes, Winrock International
1:45 pm	GENERAL SESSION
	Presiding: Mason E. Miller, Winrock, International
	Introduction to Small Group Task
	Small Group Discussion (locations to be announced)
2:15 pm	BREAK and explanation of Clambake by Narragansett Indians: Next to tennis courts
2:45 pm	Group Reports and Discussion
3:30 pm	PUBLISH AND/OR PERISH OVERSEAS
	Presiding: Reed Hertford, Rutgers University The Audiences of Professional Publication and Documentation in International Development
	Structuring International Agriculture Programs to Promote Publication and Project Documentation. James L. Collom, Consortium for International Development
	Outlets for Publications on International Agriculture Marilyn Guin, Oregon State University
4:30 pm	Report from the Board for International Food and Agricultural Development
	Presiding: Winfrey S. Clarke, Virginia State University
	BIFAD Update Robert W. Kleis, Executive Director, BIFAD

5:15 - 6:00 pm	SOCIAL: Clambake Site
6:00	NEW ENGLAND CLAMBAKE: Tropical Terrace

Thursday, June 4

7:00 am	Continental Breakfast available in Delft Conference Room
7:30 am	AUSUDIAP Legislative Committee Breakfast Meeting Terrace Conference Room (by invitation)
8:00 am	NEWSLETTER AS DEVELOPMENT TOOLS Presiding: Susana Amaya, International Tropical Agricultural Center, Columbia PANEL: What Makes for an Effective Newsletter Ted Hutchcroft, Winrock International Steve Kearl, University of Florida Allan E. Deutsch, Oregon State University Kathleen Moran, Academy for Educational Development
9:15 am	BREAK
9:30 am	PROBLEMS AND PROMISES OF HIGH-TECH COMMUNICATIONS Presiding: James W. King, University of Nebraska Meeting Farmers with Video Tapes: Promising Extension Techniques Dan Lattimore, Colorado State University Appropriate Technology: Human and Hardware Fred Saba, San Diego State University Appropriate Levels of Educational Technology Charles Kanyarusoke, Miami University, Oxford, Ohio
11:00 am	IMPLEMENTING COMMUNICATIONS IN DEVELOPMENT PROJECTS Presiding: Don Esslinger, University of Missouri Minimum Requirements for and the Role of Communications Ted Hutchcroft, Winrock International

Communications for Technology Transfer in Agriculture Project
Howard E. Ray, Academy for Educational Development

Getting the Right Kind of Communicator for the Job
Manuel Pina, International Potato Center Lima, Peru

12:00 LUNCH: Tropical Terrace

Presiding: Eugene W. Adams, Tuskegee University
Agricultural Development Relationships to Universities and US Agriculture
Speaker: Duane Acker, Director, Food and Agriculture, AID

1:30 pm CONCURRENT SESSIONS

1. AUSUDIAP

Presiding: Donald Isleib, Michigan State University

Report of Futures Committee
Ken Shapiro, University of Wisconsin

2. ACE Special Session: Terrace Conference Room

Presiding: Don Esslinger, Co-Chair, IA SIG

International Agricultural Communications Organizations Working Together

2:30 pm BREAK

3:00 pm SOLVING WORLD HUNGER: THE US STAKE

Presiding: Joan Joshi, Manager, Development Education, Consortium for International Cooperation in Higher Education

PANEL: David Abedon, University of Rhode Island
Mary Andrews, Michigan State University
William Farnsworth, Utah State University
Keith Scearce, University of Georgia
Earl Teeter, U.S. Dept. of Agriculture

4:00 pm	INTERNATIONAL PROGRAMS AND AGRICULTURAL COMMUNICATORS WORKING TOGETHER: SUMMARY AND OVERVIEW Presiding: Ellen A. Maurer, University of Wisconsin-Madison J. Lawrence Apple, North Carolina State University
4:30 pm	AUSUDIAP and ACE Resolutions AUSUDIAP: Hugh Popenoe, Representative, University of Florida ACE: REPRESENTATIVE
	POST CONFERENCE ACTIVITIES (optional)
7:00 - 9:00 pm	LUAU DINNER - by reservation and ticket
9:30 - 11:30	MOONLIGHT CRUISE ON NARRAGANSETT BAY (by reservation and ticket)
<u>Friday, June 5</u>	(Optional)
8:30 - 11:30 am	AUSUDIAP Executive Committee Meeting: Delta Conference I
8:30 - 11:30 am	ACE IA SIG Executive Committee Meeting: North Poolside
8:30 - 2:00 pm	NECID Meeting: Room 115
June 5 and 6	SECID Meeting: Terrace Conference Room
June 5 and 6	CICHE Development Education Conference for Northeast Region of Cooperative Extension, Delft Conference II Room

SPOUSE PROGRAM

Tuesday, June 2

12 noon - 6:00 pm — Registration - Lobby

7:00 pm - 9:30 pm — Seafood Reception - Galilee Beach Club
By reservation and ticket

Wednesday, June 3

9:30 am - 12 noon — Campus tour of main campus in Kingston and Graduate School of Oceanography at the Narragansett Bay Campus. Meet in Lobby at 9:15 am.

12 noon - 1:45 pm — AUSUDIAP President's Luncheon and Awards
Tropical Terrace, Dutch Inn
By reservation and ticket

1:45 pm - 5:00 pm — Beach time (one block away) or free time for other options, i.e. ferry ride to Block Island, visit fish retail and wholesale markets, shopping.

2:15 pm — Observe Clambake preparation by Narragansett Indians - Next to tennis courts, Dutch Inn

5:15 pm — Social Hour. Cash bar at Clambake site

6:00 pm — Clambake
By reservation and ticket

7:30 pm — Entertainment - Barbershop Quartet

Thursday, June 4

9:00 am - 4:00 pm — Newport Tour
By reservation and ticket (tickets are available at the registration desk) Visit Newport mansions and shop in Newport. Meet in lobby at 8:45 am to board the bus. Return by 4:00 pm.

Post Conference Activities

7:00 - 9:00 pm — Luau Dinner - Tropical Terrace, Dutch Inn.
By reservation and ticket

9:30 - 11:30 pm — Moonlight cruise on Narragansett Bay
By reservation and ticket (tickets for both these events are available at the registration desk)

If you have questions about optional activities, please contact the Dutch Inn staff or anyone wearing a URI white conference badge.

Please enjoy your visit to Rhode Island.

AUSUDIAP

Association of U.S. University Directors
Of International Agricultural Programs

EXECUTIVE COMMITTEE

Chairperson
Donald R. Isleib
Michigan State University

Vice-Chairperson:
E.W. Adams
Tuskegee Institute, Alabama

Secretary-Treasurer:
Thomas A. McCowen
University of Illinois

Directors:
Violetta B. Cook
Texas A&M University

P. Howard Massey, Jr.
Virginia Polytechnic Institute
and State University

Tom W. Westing
University of Arkansas

Handy Williamson,Jr.
USAID S&T/RUR, Washington, DC

ACE

AGRICULTURAL COMMUNICATORS IN EDUCATION

EXECUTIVE COMMITTEE

President
Don M. Springer
University of Florida

President Elect
Joe Marks
University of Missouri

Vice President
Bonnie Riechert
University of Tennessee

Directors
La Rae M. Donnellan
University of Vermont

Diane O'Connor
USDA

Ted R. Holmes
Louisiana State University

Directors (cont'd)
Gary L. Vacin
University of Nebraska

Norman Newcomer
New Mexico Sate University

Mark T. Allen
Michigan State University

Thomas E. Waldinger
Fertilizer Institute

Secretary/Treasurer
Don Collins
Resource Washington, Inc.

Local Arrangements
Donald E. McCreight

Spouses Program
Terry McGovern
Conference Coordinator
Elizabeth Miller

AUSUDIAP/HISTORY 1965 - 1987

1965 - 1968 - Informal Executive Committee
John Blackmore, Minnesota
A.J. Coutu, North Carolina
R.M. Hagan, California
Kirk Lawton, Michigan State
D.W. Thomas, Purdue
K.L. Turk, Cornell

1968-1969 - Chairman - A.J. Coutu, North Carolina

1969-1970 - Chairman - Hugh L. Popenoe, University of Florida

1970 - 1971 - Chairman - G.K. Brinegar, University of Illinois

1971-1972 - Chairman - K.L. Turk, Cornell

1972-1973 - Chairman - John Blackmore, University of Minnesota

1973-1974 - Chairman - D. Wood Thomas, Purdue

1974-1975 - Chairman - L.H. Dickson, University of Tennessee

1975-1976 - Chairman - J. Wendell McKinsey, University of Missouri

1976-1977 - Chairman - Mervin G. Smith, Ohio State

1977-1978 - Chairman - John T. Murlock, University of Wisconsin

1978-1979 - Chairman - Bruce Anderson, Utah State

1979-1980 - Chairman - Vernon Larson, Kansas State

1980-1981 - Chairman - Larry Zuidema, Cornell

1981-1982 - Chairman - J. Lawrence Apple, University of North Carolina

1982-1983 - Chairman - Robert W. Kleis, University of Nebraska

1983-1984 - Chairman - J.T. Scott, Iowa State University

1984-1985 -Chairman - Harold R. Matteson, New Mexico State University

1985-1986 - Chairman - Howard Massey, Virginia Polytechnic Institute and State University

1986-1987 - Chairman - Donald R. Isleib, Michigan State University

Association of U.S. University Directors of International Agricultural Programs

Chairperson
Donald R. Isleib, Michigan
Phone: 517/355-0174
Vice-Chairperson:
E. W. Adams, Alabama
Phone: 205/727-8953
Secretary-Treasurer:
Thomas A. McCowen, Illinois
Phone: 217/333-6420

Directors:
Violetta B. Cook, Texas
Phone 409/845-2550
P. Howard Massey, Jr., Virginia
Phone: 703/961-6338
Tom W. Westing, Arkansas
Phone: 501/575-2252
Handy Williamson, Jr., Tennessee
Phone: 615/320-3003

AUSUDIAP COMMITTEES
1986-87

Executive Committee

Donald R. Isleib, Chairperson, Michigan State University	517/255-0174
Eugene W. Adams, Vice-Chairperson, Tuskegee University	205/727-8953
Thomas A. McCowen, Secretary-Treasurer, University of Illinois	217/333-6420
Violetta Cook, Texas A & M University	409/845-2550
P. Howard Massey, Virginia Polytechnic Institute	703/961-6338
Thomas W. Westing, University of Arkansas	501/575-2252
Handy Williams, Jr., AID/S&T/RUR	703/235-8929

Program Committee

Eugene W. Adams, Chairperson, Tuskegee Institute	205/727-8953
James W. Cowan, NASULGC	202/293-7120
Gerald A. Donovan, University of Rhode Island	401/792-2474
Larry W. Zuidema, Cornell University	607/256-3035
J. Lawrence Apple, North Carolina State University	919/737-2665
Patricia Barnes-McConnell, Michigan State University	517/355-4693
Cornelia Butler Flora, Kansas State University	913/532-6865
Kim A. Wilson, Michigan State University	517/355-0174
Kenneth H. Shapiro, University of Wisconsin	608/262-1271
Earl D. Kellog, CID	602/745-0455
Frank Fender, USDA/OICD	202/447-2069
Winfrey Clark, Virginia State University	804/520-6421

Public Awareness Committee

J. Lawrence Apple, Chairperson, North Carolina State	919/737-2665
Mary Andrews, Michigan State University	517/355-0115
John L. Woods, University of Illinois	217/333-5831
Dean Jansma, Pennsylvania State University	814/863-0249
Don L. Esslinger, University of Missouri	314/882-8257
Ed Price, Oregon State University	503/754-2228

ACE/AUSUDIAP Ad Hoc Communication Committee

Don L. Esslinger, University of Missouri	314/882-8257
Ed Price, Oregon State University	503/754-2228
H. Paul Roberts, Michigan State University	517/355-0179

International Program Peer Review Committee

J. T. Scott, Chairperson, Iowa State University	515/294-4866
Francille Firebaugh, Ohio State University	614/422-5881

Awards Committee

Vernon C. Larson, Chairperson, Kansas State University	913/532-5714
Cornelia Butler Flora, Kansas State University	913/532-6865
Thomas T. Williams, Tuskegee University	205/727-8767

Legislative Committee

Kenneth H. Shapiro, Chairperson, University of Wisconsin	608/262-1271
James W. Cowan, NASULGC	202/293-7120
Fred Hitzhusen, Ohio State University	614/422-7252
Harold R. Matteson, New Mexico State University	505/646-3199
James W. Oxley, Colorado State University	303/491-6272
Winfrey Clark, Virginia State University	804/520-6421

Contractual Relations Committee

John Shields, Chairperson, California State University	209/294-2061
James L. Collom, CID	602/745-0455
Mary Ida Baca, New Mexico State University	505/646-4761
Horris Whitaker, Utah State University	801/727-6787
Jane Knowles, University of Wisconsin	608/262-1794

Education and Training Committee

Larry Zuidema, Chairperson, Cornell University	607/256-3035
Scott Witter, Michigan State University	517/355-0174
John J. Nicholaides, University of Illinois	217/333-6420
Tom W. Westing, University of Arkansas	501/575-2252
Violetta Cook, Texas A & M University	409/845-2550

Nominations Committee

P. Howard Massey, Chairperson, Virginia Polytechnic Institute	703/961-6338
John Maré, University of Arizona	602/621-1900
Delayne Welsh, BIFAD	202/647-9048

Resolutions Committee

Hugh Popenoe, Chairperson, University of Florida	904/392-1965
Willard E. Urban, University of New Hampshire	603/862-1450

Publications Committee

P. Howard Massey, Chairperson, Virginia Polytechnic Institute	703/961-6338
Mike Nolan, University of Missouri	314/882-2745

Ad Hoc China Relations Committee

Dean Jansma, Chairperson, Pennsylvania State University	814/863-3543
Edwin B. Oyer, Cornell University	607/256-2283
Lynn Williams, Washington State University	509/335-2722
Clarence Gray, Virginia Polytechnic Institute	703/961-6249

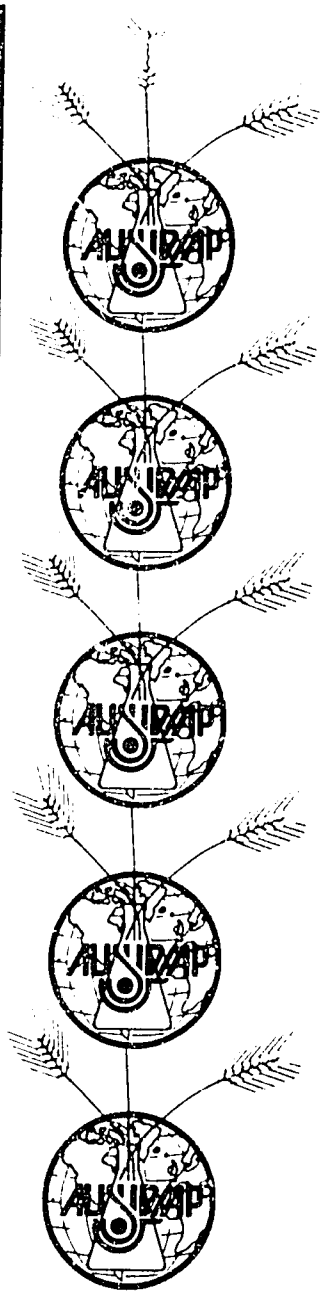
Ad Hoc Special Committee on the Future

Kenneth H. Shapiro, Chairperson, University of Wisconsin	608/262-1271
John Moore, University of Maryland	301/454-6407
Tom W. Westing, University of Arkansas	501/575-2252
D. Woods Thomas, Purdue University	317/494-6866
Dale Harpstead, BIFAD	202/647-8409
James W. Cowan, NASULGC	202/293-7120
J. T. Scott, Iowa State University	515/294-4866
Richard Robbins, North Carolina A & T State University	919/379-7901
Morris Whitaker, Utah State University	801/750-1842

E. Paul Creech receives the 1987 Distinguished Service Award

Margaret Fahs receives the 1987 Distinguished Service Award

1987
DISTINGUISHED SERVICE AWARD RECIPIENTS



Association of U.S. University Directors
of International Agricultural Programs

191

AUSUDIAP
AWARDS FOR DISTINGUISHED SERVIC

In 1982, AUSUDIAP initiated a Distinguished Service Award to recognize individuals who have co tributed to the goals and objectives of the association.

In order of importance, the criteria used for soliciting a candidate are:

1. Demonstrated public service that has advanced the purposes of AUSUDIAP;
2. Innovative contributions to AUSUDIAP programs;
3. Length of service in the international area and in AUSUDIAP.

DR. ERVEN J. LONG

Dr. Erven J. Long has been called "an AID institution" for his long and influential career with the Agency for International Development. Currently Coordinator for Strengthening Grants and University Relations of Title XII, Dr. Long began his work with AID in 1960, just after the agency was created, as an expert in agrarian reform. Since then, he has distinguished himself in a variety of leadership roles involving AID and the land-grant university community, principally in the areas of research, science, and technology.

Dr. Long received his B.S. degree and his doctorate in agricultural economics from the University of Wisconsin-Madison. In addition, he was a Farm Foundation Fellow at the University of Chicago. During World War II, Dr. Long served with the University of Wisconsin Extension Service as assistant supervisor of the Wisconsin Farm Labor Program. In 1950, he accepted a post as head of the Department of Agricultural Economics and Rural Sociology at the University of Tennessee at Knoxville.

At the request of the U.S. Foreign Aid Agency, Dr. Long in 1950 became an adviser to the Belgian Congo on economic development. In 1956, he was asked to participate in a long-term, institution-building project in India on agriculture in higher education. He served as Chief-of-Party and drafted the basic legislation for establishing the University of Agricultural Sciences in Mysore State, and he guided development of similar state universities in Kerala and Madras.

In the following years, Dr. Long was responsible for organizing and directing other AID assistance programs. In all, he has visited or worked in more than 30 of the developing countries. He also was a key figure in passage of the Title XII legislation. As chairman of the AID committee, he brought Title XII to the point where the amendment received the support of the Ford Administration.

In recent years, Dr. Long has also had a major impact on the historically black land-grant universities and their participation in AID programs.

A colleague has said of him: "Because of his innovativeness, his vigor, the breadth of his knowledge, and his willingness to serve and share, his influence will continue to be felt for years to come."

IN INTERNATIONAL AGRICULTURE

This award also expresses the association's appreciation of various leaders and establishes good will on behalf of the association. Candidates do not have to be members of the association, nor do they need to be citizens of the United States.

The process for selecting candidates begins by a nomination by an AUSUDIAP member to the Awards Committee Chairperson. The Awards Committee then submits a list of nominees and a documentary of their qualifications to the AUSUDIAP Executive Committee, which approves a final list of honorees.

E. PAUL CREECH

One of the pioneers in the development of international agricultural programs, E. Paul Creech has had a long career of dedicated service—first as a vocational agriculture teacher, later as a supervisor, then for 20 years as an international programs administrator.

It was his work with international programs at Texas A & M University that earned him a reputation for excellence in commitment and service. His first appointment at Texas A & M was as an agronomy adviser in 1958. He then was named Deputy Chief of Party in Bangladesh, where Texas A & M helped to establish a new university. In 1964, he was named assistant director of international programs at Texas A & M. He was appointed acting director in 1974, and he was named director in 1976. One of his colleagues stated: "Under Creech's leadership, international programs at Texas A & M gained prominence."

He spent nine years overseas in foreign assistance programs and visited and worked in 46 countries. Very successful technical assistance, research, and institution building projects were completed in countries in Africa, Asia, and Central America as a result of his leadership. Three of the projects were joint endeavors of several universities, and E. Paul Creech was a key figure in establishment of the consortiums.

A native Texan, he completed B.S. and M.Ed. degrees in agricultural education at Texas A & M University. He also took courses at Baylor University, Sam Houston University, and the University of Houston.

Early in his career, he was a vocational agriculture teacher and a county education supervisor in Eastland County, Texas. He later became a district supervisor of vocational education with the Texas Education Agency, and he was a public school vocational agriculture teacher.

He retired in 1979. In 1983 he received two significant honors. He was inducted into the Center High School Hall of Honor, and Texas A & M presented him an award for Significant Contributions Toward the Development of International Agriculture. He continues to do consulting work and remains active in AUSUDIAP, serving on committees and contributing to the goals and programs of the association in numerous ways.

MARGARET P. FAHS

Dedication to excellence in communications has been the trademark of Margaret Fahs in her work, first as a news reporter then as an advocate for international programs.

In her present position as assistant director of international programs for the National and State University Land-Grant Colleges, one of her primary tasks is to edit the much-respected "International Letter," a publication for the NASULGC community as well as for a broader national and Washington, D.C., audience. Her work in this area has received high praise for its accuracy, its well-thought-out analyses, and its well-crafted prose that meets her readers' needs.

Her other primary task is as a strong advocate of aid to developing countries. She has provided leadership for coalitions of the many diverse foreign aid groups in the nation's capital, both private and governmental. One of her strongest and most successful lobbying efforts was to keep Title XII from threatened, devastating cuts. She was the focus for providing information, for arranging for testimony before key Congressional committees, for letter-writing campaigns, and for contacts with key members of Congress and their staffs. Her deep involvement in the process was a major reason Title XII interests remained protected.

A person who has followed her work said: "None familiar with the events of 1986—when there was no possibility of gain for Title XII programs but a real threat of annihilation—would doubt the role played by this outstanding professional, Margaret Fahs."

A native of Missouri, Margaret Fahs received her associate degree from Christian College, Columbia, Mo., her bachelor's degree from the University of Missouri, and she has taken additional courses from the University of Minnesota. She began her professional career as a reporter for Times-Dispatch in Richmond, Va. She subsequently worked as a reporter for a radio and TV station, for United Press International, for an advertising agency, and for another newspaper in Minnesota. She joined the NASULGC staff in 1977.

Other Distinguished Service Award Recipients

1982

JOHN BLACKMORE

1983

BRUCE H. ANDERSON
PAUL FINDLEY
JOHN A. HANNAH
ELMER R. KIEHL
ROBERT H. McALEXANDER
JACKSON A. RIGNEY
D. WOODS THOMAS
KENNETH L. TURK
IRVING R. WYETH

1984

DONALD C. KIMMEL
EARL R. LENG
WILLIAM E. REED
MERVIN G. SMITH
GERALD W. THOMAS

1985

H. DEAN BURCH
JOHN T. MURDOCK
WILLIAM N. THOMPSON

1986

FREDERICK E. HUTCHINSON
BENNIE D. MAYBERRY
LEWIS GULICK