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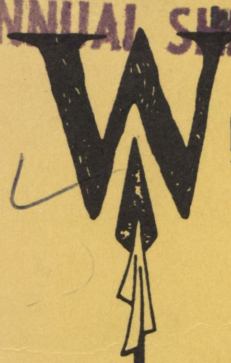
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SESSION 2

THE CHALLENGE OF RELEVANCY:

American Universities and the Development of
Rural Leadership in the Third World

INTRODUCTION

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Current discussions in Congress and the various departments of the Agency for International Development (AID) cloud the future of institutions of higher education involved in the training of inter-national students. Recommendations of Representative Lee Hamilton's House Committee call for restructuring the basic document under which foreign assistance is distributed. Representative Hamilton's committee has held hearings and has issued a report calling for major changes in the Foreign Assistance Act. Like Pandora's Box once opened, it is hard to know exactly what might result. Some of the current proposals move military and security expenditures, which account for 75% of Foreign Aid, out of AID to the Departments of State and Defense. They eliminate earmarks (the guarantee that special interests get their piece of the pie), and significantly change the focus of training (3).

For the purposes of the current discussion, we wish to focus on the training agenda. Alfred Bisset, Director, Office of International Training, AID, has listed seven important issues related to training which directly affect institutions of higher education (2):

1. There will be a greater use of two-year and community colleges for short term training;
2. There will be a shift from private to public universities for undergraduate education;
3. There will be an increasing proportion of trainees enrolled in short term programs. In the next fiscal

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year the expected breakdown is 18% undergraduate; 27% graduate and 55% short term, technical training;

4. There will be a continued and increased emphasis on cost containment;
5. There will be an increasing emphasis on Africa with a resulting decrease in focus on Latin America and Asia;
6. More decisions will be made at the AID mission level;
7. Many of the missions will become increasingly involved in follow up and evaluation. In particular, there is a desire by some missions and programs to establish ongoing and close personal and professional relationships between the trainees and American institutions and individuals.

The importance of the trends varies by regional AID bureau. The Latin America and Caribbean Bureau will continue to have a significant commitment to the Central American Peace Scholarship Program (CAPS). Funding for the current program has expired. The missions have designed a new program which could be more flexible. While the present program commits 51% of the Bureau's funds to CAPS, the next program will utilize about 40% for CAPS (5). Several major components already in place require that 40% of the participants be female and that at least 10% of the training be done at Historically Black Colleges and Universities (HBCU's). The programs will emphasize the private sector and entrepreneurship. This is in line with the current administration's philosophy that private sector and individuals

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take greater responsibility for development and volunteerism.

A recent RFP for a three-year project in Swaziland, the Commercial Agricultural Production and Marketing Project, (estimated cost \$19 million) indicates the possible direction of the African Bureau (8). The Bureau has stated publicly that business and economic aspects of agricultural development will receive major emphasis. Nine of the ten topics for short term training relate to marketing, management or finance. The project also requires four long-term staff with either formal training in Agribusiness/Agricultural Economics or practical experience in industry.

From a training perspective this project suggests two important changes in direction. First, the project funds only one Ph.D. and one M.S./MBA with a total budget of \$129,000. Second, 90% of the short term training requested will be done in country. Cameron Bonner, Chief, Education Division, Bureau for Africa, in a recent speech (4) stressed that these issues are central to the agenda of his Bureau. These changes will result in far fewer opportunities for graduate degree granting institutions to depend on foreign graduate students as a source of FTE. The project offers few opportunities for graduate assistantship. It reduces opportunities for such projects to be a source of dissertation topics.

Other issues on the Africa Bureau agenda include a trend toward a greater use of African rather than U.S. institutions for undergraduate education. This leads to the prospect of increased

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opportunities for institutional marriages between U.S. and African universities. The Bureau sees a major need to develop regional institutions throughout Africa to provide both B.S. and advanced training. There will be a significant thrust in programs to develop job skills. Fifty percent of the funds will be directed to the African private sector to accomplish these objectives. Finally, women will comprise 35% of the programs' participants.

The Asia and Near East Bureau has weighted its programs toward agricultural business with particular emphasis on export marketing. In addition, due in no small part to the high man/land ratio, it has focussed the program on the maintenance of the resource base. The Bureau has developed a three fold scheme to categorize its countries (low income agricultural, low income transition, and middle income industrial). It is creating programs targeted under this typology. As with the other two bureaus, it will direct resources toward small farm agriculture and the sustainability of agricultural systems (6).

The sustainability issue has received substantial attention recently. The Board for International Food and Agricultural Development (BIFAD) issued a report in February 1988 entitled "Strategies for Sustainable Agriculture" (1). This report outlines the problem and the role for Title XII institutions. The political power of the environmental constituency will ensure that the issue of sustainable agriculture remains a high priority

in development work.

SHORT TERM TRAINING AT CSUC

The changing agendas for international education and short term training pose new challenges to American universities in the 1990's. AID and its congressional funders have shifted not only the priorities of the training agenda, but also the principle clientele who are to receive the educational and training inputs. Program participants increasingly reflect the intent to move beyond the urban and administrative elites to encompass a wider range of rural leaders. The experience at California State University, Chico is illustrative and informative in this respect.

Small-farm agriculture plays an essential role in the development of viable rural economies in many developing countries of Latin America, Asia and Africa. Small farmers, as contrasted with subsistence farmers, produce a surplus of product beyond the consumption needs of their immediate family. They sell this surplus into local, national, and international markets. Like the farmers of the United States, they interface with private and public sector organizations that affect the viability of their operations. They are part of a global village that defines the parameters of production and their opportunities for success.

Historically, development agencies have focused most of the resources for agricultural and rural development in third world countries on the creation of infrastructure or the development of

"institutional capability." Administrators have favored the construction of roads and ports, massive irrigation projects and the training of technicians and administrators. Developers have rationalized this type of investment as producing verifiable and tangible results that satisfy the needs of the bureaucracy and the whims of the congressional purse holders (7).

Development administrators often operate under a trickle down theory of agricultural development. They implicitly assume that changes in the macro-structure of agricultural production will eventually reach the small producers and integrate them into the national and international marketplace. Experience has shown the limitations of infrastructure and institutional development on the integration of small farmers into the national and global agricultural community. In many cases, investments in these areas have increased the marginal position of the small farmers and reduced their access to the very resources and skills that are necessary to improve their incomes and livelihood.

To produce and compete in the complex world of international agriculture, small farmers must better utilize their resource base. Their integration into the global agricultural community hinges on their ability to:

1. Adapt and apply modern production technologies;
2. Develop increasingly sophisticated farm management and agri-business management techniques;
3. Establish and strengthen cooperatives and farmer associations;

4. Develop access to production credits and investment capital;

5. Establish market presence and market penetration in the product areas where they have a competitive advantage.

Small farmers must dominate and apply the "soft technologies" of organization, market analysis, business management, and systematic decision making if they are to benefit from the massive investments made in infrastructure and institutions over the past 30 years. Mastery of these soft technologies will play an increasingly important part in the ability of small farmers to succeed in the agricultural sector.

The methodologies of technology transfer must change to meet the needs of the small farmers. The transfer mechanisms that served for the introduction of new varieties of wheat or the construction of port facilities have little application in the development of marketing strategies for farmers or in the formation of professional management teams for cooperatives in developing countries. The new technologies rely upon information. They focus on the individual's ability to acquire and manipulate information instead of things. They have their maximum effect when they are assimilated and implemented at the individual farm and cooperative level. The methodologies of technology transfer must raise the skill levels of the small farmer both individually and collectively.

SMALL FARMER AND RURAL LEADER TRAINING PROGRAMS

Over the twenty years, the authors have had numerous opportunities to analyze and explore the issues related to the transfer of "soft technology." Most recently, they have engaged the resources of the California State University, Chico, in training programs for rural leaders from Latin America. With funding from USAID prime contractors, the CSUC program has addressed the training needs in four broadly defined skill areas: basic farm management; basic farm accounting; leadership skills and cooperative services. In these training activities, the CSUC team has confronted two central problems:

1. How to develop a training methodology that provides substantive content and skill development to small farmers and rural leaders who have little formal education;
2. How to focus the resources of the university and the university system on the transfer of "soft technologies" to a non-traditional student clientele.

Both issues have broad application to the question of agricultural development and the role of universities in that field.

IMPLEMENTATION

The Participants:

The program participants have come from both the Andean Latin American and the Central American regions. As small farmers, cooperative managers, leaders of community organizations

and rural teachers, they are representative of an important segment of the rural middle class throughout Latin America. They hold pivotal positions in rural society which allow them to introduce economic innovations and influence political decisions at the local level. They have the potential to be "agents of change" within their local communities. USAID, national governments and agents of repression on both the left and right recognize this potential. As change agents they are both influential and vulnerable in the political environment of modern Latin America.

The 20 Bolivian farmers who participated in the CSUC summer 1988 training program illustrate many of the characteristics of this class of rural leaders. The participants came from the central and southern highland regions of the country. Their holdings averaged between 20 and 40 acres. With elevations ranging from 1200 to 3000 meters, their production covered over 20 different cash crops. Tree fruits, vegetables, small grains and tubers made up the bulk of their production. Although many of the participants had supplemental businesses or activities as truckers or jobbers, their farms provided them with their primary income and livelihood.

The ages of the Bolivian participants ranged from nineteen to sixty-eight years old. Sixteen had completed elementary school. About half had some secondary school training and two had completed two years of university training in areas other

than agriculture. Other groups have shown more uniformity in age and in formal training.

The formal training of the Bolivian farmers belied both their motivation and the important economic roles that most had assumed in their communities. Most actively participated in their local cooperative or agricultural associations. Many held positions on different road improvement, community improvement or sports associations.

As directors of co-ops and members of community groups, the participants administered and controlled the disbursement of sizeable amounts of cash. In all these aspects, the Bolivians were highly representative of the local leadership found in many areas of rural Latin America.

The participants in the training programs generally have widely differing agendas and conflicting perceptions of their training needs. Again the experience of the Bolivian farmers illustrates the complexity of the problem of need perception and assessment. As farmers and producers, the Bolivians prioritized the problems that they faced in four general categories:

1. Lack of market and market alternatives for their crops;
2. Dependence upon intermediaries who set prices and supposedly receive a disproportionate share of the profit;
3. Ineffective and dysfunctional cooperatives and farmer associations that bring little benefit to the members;
4. Lack of access to technical help and to the sources of

innovation that could improve productivity and net returns.

Noticeably lacking in this list of major problems was any mention of the need for management or leadership training. From the very outset, there was an apparent disjunction between the problems as defined by the participants and the training mandate as defined by the USAID mission in Bolivia.

This seeming contradiction between problem definition and problem resolution reflects in large degree the participants educational background and their lack of exposure to systematic problem solving. Although highly literate, they are often visual and tactile learners. Although they recognize the complexity of the problems, they are uncomfortable with conceptualizing solutions. By education and hard experience the participants are skeptical at the outset of any training exercise that centers on, what is to them, the rather nebulous themes of farm and cooperative management and leadership skills.

THE CSUC MODEL

The training program at CSUC has developed a two-pronged approach to technology transfer: cooperative learning and information acquisition and management. In the first approach, the methodology draws heavily upon cooperative learning techniques. These techniques structure interaction among the participants and between the participants and the training staff. The primary responsibility for teaching rests upon the participants themselves. The training staff acts to direct and

guide the learning process.

This interactive methodology utilizes different types of role playing. Formatted on a case study approach to business analysis or on actual production projects, the role play allows the participants to apply the concepts and procedures that they have developed in a "real case" situation. This training methodology allows individuals with little formal training and education to function in a university setting and to utilize the material and intellectual resources of the university system. The implementation of the program suggests that the university may extend its role to meet the needs of a non-traditional clientele and expand its influence in the area of agricultural development.

ROLE PLAYING AND GROUP STUDENT PROJECTS

The CSUC program utilizes the group student project (GSP) to supplement and provide a focal point for the technical and management training. Through the GSP the participants meet the following objectives:

1. Study and implement an effective training model for agriculture instruction in their communities;
2. Carry an agricultural project through an entire production cycle utilizing applied and practical technologies under supervised conditions;
3. Practice and apply specific agricultural technologies that they may have developed at a theoretical level in their jobs and careers;

4. Learn and apply detailed farm management techniques in the form of planning, record keeping, cost accounting and sales records;
5. Develop and implement a cooperative model of organization and management that has broad application in their schools and in their communities..

Implementation

The participants carry out the Group Student Projects at the CSUC university farm. To experience a complete production cycle, the participants plan, plant, cultivate, harvest and sell the product from a large commercial vegetable garden. Each individual is responsible for his own parcel within the group project. It is estimated that the participants spend two - three afternoons during the week and part of a day on the weekend to maintain their parcels.

Participants interested in animal husbandry develop GSP's in the area of bee keeping, poultry and swine production. As in the case of horticulture, the participants can carry out a project through a complete production cycle. Animal projects require the organization of small groups to provide sufficient care and attention to the livestock.

The participants organize themselves into a production and marketing cooperative for the purpose of administering the project and selling their product. As a cooperative, they study and apply the principles of cooperative management. They make the decisions regarding the division of labor, the marketing

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program for the group and the distribution and use of revenues. The participants are responsible for maintaining accurate production records for their own parcels. The cooperative managers will also maintain records for the organization.

The cooperative organization permits an individual to explore his special field of interest within the framework of the production association. In the meeting of the cooperative, individuals are expected to make technical reports in their area of specialty to other members of the organization. The GSP structures a flow of information among the participants. The program defines one of the principle activities of the cooperative as the sharing of technical and management information among the membership.

The Case Study

A second type of role play complements the activities of the Group Student Project. In this case the participants carry out an analysis of a business case study of a hypothetical cooperative. The participants carry out this analysis through a dramatization in which each person is assigned a specific part and acts out his assigned role. This format allows the participants to apply the analytic tools that they have acquired in a way that maximizes their involvement.

The staff designs the case study around the management decisions that a cooperative board of directors would be expected to make. Utilizing cost and price information offered by the participants, three possible scenarios are developed. These

scenarios cover the introduction of new processes and an extension of the cooperative's management and marketing functions.

INFORMATION ACQUISITION

The second approach in the training methodology focuses the participants on the management aspects of rural enterprises. It runs concurrently with the Group Student Projects and utilizes some of the cost and management data generated in the projects. It defines the core element of farm management, farm accounting and cooperative management as the acquisition and manipulation of information at the farm and cooperative levels. The training methodology has the participant's focus on four issues:

1. What information is required by the farmer and/or cooperative member to make effective decisions;
2. How should this information be systematically collected and recorded;
3. How should the information be organized and manipulated;
4. What decisions can and should be based on the information that is developed through the collection process.

The introduction to farm accounting and farm management begins with specific exercises covering the organization and collection of relevant information. The program staff develops a series of data collection forms that are modifications of those used in basic farm accounting classes at the university level.

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The first exercises center on establishing a physical inventory of the farming operation including the development of parcel maps. Maps are visual and tactile representations of a physical reality. Their use bridges a gap between "hands-on" experience in the field and the conceptualization of that experience in the classroom.

Two other forms complete the information collection phase of training. The first consists of a financial inventory with which the participants list their cash and other current assets and their liabilities. The second is a single entry accounting form. With this simple spread sheet the participants have a tool with which to categorize the sources of income and to "spread" the expenses incurred in their farming operations. Although the model breaks down the expenses in only a few categories, it becomes clear to the participants that the form can be expanded to include as much detail as they wish on a crop by crop basis. The single entry spread sheet becomes an effective means of systematically developing and analyzing distinct cost categories. The staff supplements it by developing separate expense registers that allow further detail within such cost categories as "Equipment Expenses" or "Crop Production Expenses".

The first phase of the training program keeps the participants focused on the collection of data and its organization into discrete categories. The second phase gives the participants the tools to manipulate the data to develop management reports. The management reports considered to be of

primary importance include the following: profit and loss statements, fiscal year budgets and multi-year projections, balance sheets, loan packages and credit applications.

All of these reports flow from the information that has been developed in the prior exercises. The single entry spread sheet generates the data of the profit and loss statement. The participants realize that the statement is little more than a summarizing and rearranging of the columns of the now familiar spread sheet. With the actual data from current and previous operations at hand, they can understand that budgeting and financial projections extend past experience into the future and into new areas of production activity. The balance sheets flow from their physical and financial inventories and are tied to the profit or loss as reflected in their operations statement. The center point of the training exercise remains firmly fixed on the manipulation of information to produce intelligible summaries that can serve the farmer, the cooperative or the banker.

The staff develops several ancillary themes of special importance during the discussion of the management reports. The development of spread sheets and projections creates the opportunity to discuss the cost of capital, rates of return and estimations of financial risk. These are key elements of decision making in any agribusiness or farming enterprise.

With the spread sheets the staff introduces the participants to the micro-computer and computerized data manipulation. Few of

the participants have the resources to access computers on their own farms. However, several of the cooperatives to which they are associated have sufficient volumes to warrant the purchase of a computer.

FIELD VISITS

With the presentation of the Group Student Projects and the management component of the program, the participants visit numerous farms, agribusinesses and farm cooperatives. The staff utilizes these visits to demonstrate the systems of data collection and use of information in actual business operations. The staff organizes the participants into three work groups. Each group is responsible for generating a set of questions in a defined subject area and asking these questions during the field visit. Following the visit, each group presents a summary of the responses to their question sets.

As with any group of farmers, the participants tend to get pulled into discussions of narrow production issues during their field visits. The CSUC staff prepares both the participants and the host farmers and businessmen. With this preparation, the field visits retain a focus on the central themes of data collection and the uses of information. In utilizing the question groups, the participants develop high levels of interaction with the hosts. The question group technique places the responsibility of information exchange on the participants themselves. Shifting the focus of this exchange is the underlying concept of cooperative learning. It proves to be a highly

successful training methodology given the background and training of the farmer participants.

CLOSING OBSERVATIONS

As we enter the new era of training and international development several important issues must be addressed.

1. It is clear that AID, the missions, and participants are searching for relevancy. In particular, in delivering short-term training we need to consider the need to develop truly interdisciplinary programs including anthropologists, sociologists and geographers.
2. With the rising concern for sustainable agriculture, it is incumbent that we develop programs which facilitate an understanding of indigenous knowledge in agriculture.
3. The technical skills nature of some problems suggest that we need to explore the possibility of developing joint programs with two-year and community colleges.
4. We need to ensure that young junior faculty find it possible to be involved in training. Rarely does it lead to refereed journal articles which seem to be the currency of our profession. If we are to have these individuals who are usually some of our best and brightest participants we must ensure that they will not only not be penalized, but in part, receive positive rewards.

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