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PROFESSIONAL PROBLEMS IN AGRICULTURAL ECONOMICS

I. TRAINING AGRICULTURAL ECONOMISTS

J. O. MORALES

Department of Economics and Rural Life, Inter-American Institute of Agricultural Sciences, Turrialba, Costa Rica

I ACCEPTED with pleasure the invitation to talk about training agricultural economists because the subject deals with the development of human resources on which a good share of the success of programmes of economic and social development depend. I agree wholeheartedly with Dr. Mosher about the tendency of many agricultural economists to accept these fundamental premises very readily, only to let them be crowded out of their minds a few minutes later by problems of more material kinds. I also accepted the invitation with pleasure because Mr. Elmhirst suggested that I place emphasis on training for Latin America, though in doing so I hope to present observations which may stimulate discussion of similar situations in other areas of the world.

In attempting to emphasize what I consider to be some of the fundamental points, I decided to arrange my paper in three major divisions. The first deals with the situation as it is, and attempts to emphasize the points which I consider most important. My second division deals with the approach which I think will best meet this situation in the immediate future. The third describes the methods which we at the Inter-American Institute have developed to implement this approach. These methods are tentative. We realize that our experience is very short, and we shall be glad to have their weaknesses discussed.

I wish to acknowledge comments and suggestions already offered by Ralph H. Allee, Armando Samper, H. C. Thompson, Arthur W. Peterson, and many other friends and colleagues.

The highly effective methods and facilities for training agricultural economists developed in Europe and the United States during the last few decades grew out of the needs, institutional structure, and other characteristics of these areas. Other regions of the world have appreciated the opportunity of using these same facilities to train the small number of agricultural economists which they have been able to absorb in their own programmes. Because these facilities

and methods were devised for more highly developed areas, the training received does not always meet fully the requirements for work in less developed areas. Those of us who have gone through this complete cycle of training and adaptation to the Latin-American situation and have observed others do the same, feel that adjustments in the training programme are necessary.

The Situation. Latin America presents some characteristics which must be taken into account in the process of training agricultural economists who intend to serve that broad geographic and cultural area.[1] The source of candidates for training is the first of these characteristics that I would like to discuss. Most of our candidates for specialized training in agricultural economics come either from colleges of agriculture or from schools of business administration and economics. If the candidate comes from a college of agriculture, the courses in economics that he has received are few and largely of a theoretical nature.[2] The professors of agricultural economics in these colleges are handicapped by lack of data directly applicable to the conditions of their own countries. This is especially true in the field of farm management, which is usually the subject best adapted to bringing the student in close contact with the practical problems of farming. They also find it difficult to introduce in their courses trips to farming areas that are essential if the students are to develop an appreciation of the role of the farmer and his institutions in the student's own society. This is of special importance because, even in the colleges of agriculture, a good share of the student body is better acquainted with the urban than with the rural setting.[3]

If the candidate comes from a school of business administration or economics he usually has taken enough courses in economics, but with strong emphasis on urban economic problems, approached primarily from the theoretical point of view. He has had very little knowledge of scientific agriculture and of the adaptation of economic principles to agriculture. It is even more likely than in the previous case that he grew up in an urban area and received his education there.

[1] The general tendency to regard Latin America as a homogeneous unit is mistaken. There are many variations in culture, ecology, &c., which have to be reckoned with.

[2] Deans Carlos Madrid and Guillermo Ramírez of the Colleges of Agriculture of Colombia made a survey of thirteen South American colleges in 1951. The curricula of these colleges included an average of only four courses and 265 hours in the social sciences out of a total of forty-six courses and 3,549 hours. Languages and other subjects outside the economics and sociology fields were classified under the heading of social sciences.

[3] In a survey conducted in 1945 Armando Samper and Carlos Madrid found that over one-half of the student body of the Facultad de Agronomía of Medellín, Colombia, had come from urban areas.

In the case of either type of candidate, therefore, the undergraduate training has not prepared him fully to pursue postgraduate studies in agricultural economics. Most candidates probably lack the full appreciation of farming as a way of life and as a business, which seems to be so fundamental as a background.

Furthermore, agricultural economics cannot count, for some time to come, on a proportionate share of the outstanding individuals from the graduating classes. By the time they have finished their undergraduate training, those few individuals who want to pursue postgraduate studies usually have been lured into following other careers by exceptionally able professors from other fields who command more facts and principles directly applicable to the local scene than is the case with the agricultural economics professor.[1] The majority of the outstanding graduates find immediate employment more promising (even from a long-term point of view) and they are seldom stimulated by the possibility of higher pay, better opportunities for constructive and pioneering work, or other incentives into pursuing postgraduate studies.

The number of employment opportunities available in Latin America is the second characteristic I want to mention. As the special competence of agricultural economists in the planning and execution of national programmes of agricultural credit, agricultural development, marketing, &c., has not been amply demonstrated and is not widely appreciated, the number of openings for agricultural economists is very limited. The salaries offered in these programmes even to competent, well-trained personnel are so low that international agencies are finding it easy to draw into their service a number of the more outstanding leaders of this field in Latin America. While the number of employment opportunities is increasing and the appreciation for the work that competent, well-trained personnel can do is growing, the small number of openings should be taken into account in determining both the magnitude and subject-matter scope of our postgraduate training efforts.

The scope of the work performed by Latin-American agricultural economists is the third characteristic I want to emphasize. One's colleague in that area is usually required to operate in a much broader subject-matter field than in the United States and Europe. Frequently he is the only professional social scientist on an entire

[1] It appears that Sibley's observation that 'the quality of students who elect to become social scientists (is) largely determined by the kind of education which they undergo before they finally choose their career' is also applicable to the Latin-American situation (Elbridge Sibley, *Education in Social Science and Selection of Students for Training as Professional Social Scientists*, Social Science Research Council, Items 5 (3) 25–29, Sept. 1951).

programme. Often he has to be his own statistician, questionnaire construction specialist, I.B.M. operator, prices and marketing expert, rural sociologist, social psychologist, cultural anthropologist, &c. Often he is asked to advise on subjects encompassing the whole breadth of the social sciences. This enormous responsibility leads to the development of a resourceful professional who, building through self-education around the highly specialized training received in the United States or Europe, attempts to carry with dignity this unbearable load.

The last characteristic I wish to mention concerns the level of social, economic, and institutional development of the area. Very few of the Latin-American agricultural economists are occupied in full-time undergraduate training and research. The need for agricultural economics research and training has yet to be demonstrated. It still has to be shown that research is as indispensable for adequate undergraduate training in our field as in all other fields; that there is considerable advantage to be derived from the participation of the professor of agricultural economics in this research; that courses in agricultural economics, when properly backed by research, can have a strong integrating influence on the teachings of other sciences in the agricultural curricula, bringing into focus their application to the farm business; and that agricultural economics research is of value in guiding the planning and execution of agricultural programmes. Yet the means with which to demonstrate what agricultural economists can do are usually very limited. Studies of hundreds of farms using the statistical approach, for example, are usually out of the question. It might be possible, however, to explore the use of the case-study approach and the segmentation of problems into more manageable units as tools with which to break this 'hen before the egg' vicious circle. Agricultural economists must be ready to exploit opportunities for conducting research on subjects in which interest already exists. They can count on the international agencies to help in demonstrating the need for more research in agricultural economics in Latin America.

The importance of the plantation and peasant systems of farming in this area is another factor which imposes considerable adjustments on the conventional approaches to the study of farm management, land economics, agricultural credit, labour productivity, and other important aspects of agricultural economics. The issues to be met are also different. Land reform, for example, is a more active subject in under-developed countries than it is in the United States and most of Europe. Our training efforts in the field of agricultural economics,

therefore, should strive to furnish professional education at a functional level with the social, economic, and institutional development of Latin America. Such training should prepare the student to fit easily into the society in which he is supposed to operate, avoiding many of the serious mistakes common in the initial period of adjustment and exploiting fully the opportunities to forward the development of the science in this part of the world.

The Approach. So far I have, perhaps, made the situation appear a little darker than it really is. All doors are by no means closed and there is ample opportunity for stimulating, pioneering work in Latin America. It would seem, however, that in order to exploit more effectively this opportunity the present training process could be modified, whenever possible, so that the following principles could be applied:

First, select candidates rigorously.[1] A strong bid should be made to choose students with the proper rural background and with outstanding mental and personal qualities. The success of the agricultural economics group in Puerto Rico, for example, can be largely traced back to the rigorous selection of candidates for graduate training. The means are available, through international training programmes, for attracting this type of student and for giving him adequate support while the training lasts. Up to now we have had to comply with regulations and with patterns of action, so that when we had an excellent candidate who was married with two children, for example, we had to reject his application because the maximum allowance for subsistence during training was $1,800. At the present time, however, the fellowships amount to whatever is needed to attract able candidates.

Second, train few students well. A 'generalized specialized training' should be offered to these candidates.[2] There is the general impression among many that M.S. training is enough for work in underdeveloped countries. I am inclined to agree, if the training is going to be highly specialized. But this is not the type of training which will best fit the needs of under-developed countries. As the countries can use but few, broadly specialized men, special efforts should be made to select and train them well. This type of training would probably require: (*a*) strengthening their background and under-

[1] At the same time efforts should be made to improve their undergraduate training, thus increasing the chances of securing outstanding students from the graduating classes. This is, however, mainly a long-term approach to the problem.

[2] 'Generalized' within the field of agricultural economics, with the necessary supplement in the other social sciences; 'specialized' in agricultural economics, either in prices or marketing or the minor phases within agricultural economics.

graduate training; (*b*) giving full adequate training in the major agricultural economics lines of specialization (prices, marketing, &c.); (*c*) giving opportunities for practice in planning and executing research in as many of these lines as possible; (*d*) incorporating courses in related subjects such as rural sociology, social psychology, and cultural anthropology; (*e*) and meshing in the training the 'theoretical' and 'practical' approaches to the study of problems pertaining to agricultural economics.[1] Professors of U.S. colleges should make special efforts not to carry into the international level the 'schools of thought' which have developed in that country and which, when transplanted to other areas, may handicap the progress of our science. Our Latin-American students, because the agricultural economics field in this area is so wide and unexplored, should have a keen ability to select from the important the fundamental. I have found many references to this point. Professor F. F. Hill and Professor J. D. Black both mention, as a characteristic of an agricultural economist, the ability to discriminate between the important and the unimportant. But here I want to stress the words, selecting the fundamental from the important. In Latin America there is such a mass of important things to do that it is the fundamental things that have to be chosen. Therefore the student must be able to base his observations and research on a firm theoretical scheme. But he should be able also to translate this scheme into practical methods of inquiry, applicable to the situation he faces and leading to facts and principles likely to be understood by the people he is expected to serve. In other words, he must be able to communicate his findings to the laymen from whom he expects increased future support.

Third, provide a closer follow-up. The training process should project itself into the countries to help the student to adjust himself to a difficult situation. A number of returning students have found the professional isolation, the limited means with which to work, the low salaries, and the lack of appreciation for what they can do, handicaps too great to surmount. Consequently, they have turned to more economically rewarding activities, giving up the career for which they were trained. Others have kept trying for long years to find the way around these difficulties which in many cases could be eliminated, at least partially, if an international or a foreign agency

[1] In suggesting these requirements I by no means want to imply that we expect a finished product at the end of the process. But we should have the ingredients by which the finished product can develop. It will be undesirable, I think, to strive after perfection in the training programme.

helped with its prestige to provide the working conditions under which the returning student could make his contribution to science.

The Methods. Up to this point I may have given an impression that ten or fifteen years would be needed to produce an agricultural economist, so now I would like to show that it can be done in three or four.

We, at the Inter-American Institute, believe that this approach can be followed if the splendid course training that can be secured in the United States and Europe were supplemented with closely supervised pre-course work and follow-up periods of training or employment. As one of the principal responsibilities of the Institute is to conduct and stimulate research and offer postgraduate training in agriculture and rural life for the twenty-one American Republics which support it, we have had during the last four years to experiment with this approach. Nine students are now in various stages of this training process in Rural Sociology and Agricultural Economics. Five of these seem likely to go successfully through the whole cycle. We have also offered our facilities to a number of U.S. and European students wanting to conduct research in Latin America as part of their postgraduate training.

Our intimate contact with member countries has made possible a rigorous selection of the candidates.[1] The agencies co-operating with the Institute in the follow-up period helped in hand-picking these candidates. They were usually offered fellowships covering all their personal expenses and those of their families. The financing of these fellowships was often shared with us by the national co-operating agency and the U.S. college or university.[2] The national co-operating agency and the students arrived at an informal understanding regarding their employment upon completion of their studies.

When the student arrived at the Institute for his pre-course work training, we prepared with him a programme of studies and work in our normal research programme, designed to strengthen his agricultural and rural background and undergraduate training. This pre-course work period ranged from a few months to a year, depending on the previous training, background, and experience of the

[1] The Institute has recently published in co-operation with Science Service a translated and adapted version of John Hopkins's book, *Elements of Farm Management*, in an effort to influence the undergraduate training of Agricultural Economics in Latin America.

[2] The Institute has formal agreements signed with Michigan and Washington State Colleges providing for training and exchange of personnel. It also has informal understandings to this effect with Montana and Pennsylvania State Colleges, and with Cornell, Wisconsin, and Tennessee Universities.

individual student. During this period he had opportunities to follow selected readings, discuss them with his advisor, take courses in English to make easier his adaptation to the U.S. college or university, take some fundamental general courses in agriculture and statistical methods and participate in the social science research programme of the Institute. He also made up his mind as to what colleges or universities he wished to attend for his courses. This period also gave us the chance to observe closely the performance of the students, and to give them final screening before they were sent for regular course work.

The students who have chosen to complete in one solid effort all the course work, have taken from two to three years. Others prefer to divide the period into two phases, returning to the Institute or to the co-operating national institution for a short period of time. We try to insist with the student, and with the training institution, that a 'generalized specialized training' should be stressed and that some courses in the other social sciences should be introduced into the study programme.

Only one student has finished his course work and has started on the next phase of the programme. In his case, when he completed his course work and as he was interested in securing his Ph.D. degree, he outlined his thesis problem in consultation with the staff of the college from which he wants the degree, and with us at the Institute, and with the national co-operating agency on the subject. When the outline was accepted by the three parties he returned to the Institute for a period of a few weeks in which he saw what the Institute has done and is doing along the lines of his thesis topic, and elaborated with us in more detail the research plan for his thesis. The arrangements for on-the-spot consultation by Institute personnel while the study is in progress were also made at this time.

We prefer to have the student work his thesis on a project in his own country and within the organization which will employ him. For this purpose we try to enter into co-operative agreements with selected national institutions through which we offer training, consultation, and exchange of personnel and information in return for the opportunity to stimulate research and training in fields of common interest. The co-operative agreement between the Institute and the National Federation of Coffee Growers of Colombia is an outstanding example of the enormous value of this follow-up method. In three years of co-operation two students have advanced enough through this training process to be of great assistance to the Federation. Three projects using similar research methods adopted

at the Institute have been initiated in Colombia, as part of the Federation's research programme.

The training process with which the Institute, some U.S. colleges and universities and national co-operating agencies are experimenting has been described as an example of what is being done in relation to the 'needs'. F.A.O., the United Nations, the Institute of Inter-American Affairs, and other international and bilateral programmes are also trying, often in co-operation with us, to supplement the national efforts to train more adequately the agricultural economists needed throughout the Americas.

In summary, Latin America has been using the highly effective facilities for training agricultural economists developed in Europe and the United States. Latin America, however, presents some characteristics which make it highly desirable to adjust this training programme to meet the special situation of this broad geographic and cultural area. The source of candidates for training, the number of employment opportunities, the scope of the work required from agricultural economists, and the level of social, economic, and institutional development of the area seem to be some of the more fundamental characteristics which affect the adaptation of the programme. Our training efforts in the field of agricultural economics, therefore, should strive to furnish professional education at a functional level with the social, economic, and institutional development of Latin America. Such training should prepare the student to fit easily into the society in which he is supposed to operate.

To meet these characteristics there should be a rigorous selection of candidates, a concentration on few students so as to be able to give them 'generalized specialized training' and to follow them up closely in their own countries so as to help them to adjust themselves to the difficulties that confront them there. This can be accomplished by supplementing the splendid course training received in the United States and Europe with closely supervised pre-course work and follow-up periods of training or employment.

I have described the experiences with nine students that the Inter-American Institute, some U.S. colleges and universities and national co-operating agencies have had in developing a training process along these lines as just one example of what is being done to meet the situation. F.A.O., the United Nations, the Institute of Inter-American Affairs, and other international and bilateral programmes are also trying, often in co-operation with the Institute, to supplement the national efforts to train more adequately the agricultural economists needed throughout the Americas.