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PURDUE UNIVERSITY

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**PORTUGAL UNIVERSITY
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DEVELOPMENT PROJECT**

(Contract AID/NE-C-1701)

**REPORT ON
SHORT-TERM STAFF ASSIGNMENTS AND
AGRICULTURAL ECONOMICS SEMINAR
Instituto Universitario de Tras-os-Montes
e Alto Douro, Vila Real, Portugal**

May 9 - June 15, 1982

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Instituto Universitario de Tras-os-Montes e Alto Douro
Vila Real, Portugal

MAY 9 - JUNE 15, 1982

Submitted by

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Purdue University Institute Development Project

Agricultural Economics Seminar

held at the

Instituto Universitario de Tras-os-Montes

e Alto Douro, Vila Real, Portugal

May 9, 1982 - June 15, 1982

Robert W. Taylor - Purdue University
Marshall A. Martin - Purdue University
Leon Garoyan - University of California, Davis

Area of Assignment:

An Agricultural Economics graduate level seminar was taught in Vila Real, Portugal at the Instituto Universitario de Tras-os-Montes e Alto Douro (IUTAD). The activities conducted during the five week assignment (May 9 - June 15, 1982) were as follows:

- | | |
|-----------------|--|
| May 9 - 11 | Martin and Taylor traveled from West Lafayette, IN. to Vila Real, including meeting with USAID personnel in Lisbon. |
| May 12 - 19 | Contacts with University staff to complete seminar plans and extensive field trips to visit farms, cooperatives, and rural communities in the Tras-os-Montes region. |
| May 15 - 16 | Garoyan traveled from Davis, CA. to Vila Real, including visit with USAID personnel in Lisbon. |
| May 20 - June 9 | Taught course, supervised graduate students, and consulted with university faculty. |

June 10 - 14 Return from Vila Real to Lisbon, including meeting
with USAID personnel.

June 14 Garoyan returns from Lisbon to Davis, CA.

June 15 Martin and Taylor returned to West Lafayette, IN.
from Lisbon.

Specific objectives of this assignment:

The primary purpose of this assignment was to bring three agricultural economists to Vila Real to organize and teach an intensive four-week credit course/seminar for IUTAD faculty members, Ministry of Agriculture, Commerce, and Fisheries (MACP) Regional staff, Instituto Financeiro de Apoio ao Desenvolvimento da Agricultura e Pescas (IFADAP) staff, and cooperative managers. Emphasis was to be placed on problems of organization, management, and financing of marketing and supply cooperatives; small farm management; and the future entrance of Portugal into the European Common Market. Upon arrival in Vila Real and after intensive discussions with the IUTAD faculty, the course topics were modestly expanded to include some material on agricultural development and policy.

An overall teaching objective was to integrate and present the diverse course material in such a way that the course participants would be able to readily apply concepts, ideas, and techniques in their current professional positions and thereby improve the performance of the various institutions represented by the participants in the seminar. A second objective was to closely supervise the development of manuscripts by those individual course participants who wished to receive one semester hour of graduate credit in Agricultural Economics from Purdue University. One of the critical issues in the future growth and development of IUTAD is strengthening and expanding

the professional and analytical skills of its faculty. Currently only one of the seven members of the Department of Agricultural Economics and Rural Sociology has completed a graduate degree - a M.S. degree in Rural Sociology.

Secondary objectives of the assignment were to review the teaching program and interact with faculty on potential research activities. Enhancement of teaching and research capabilities of the IUTAD faculty will not only improve the effectiveness and relevance of the undergraduate curriculum but will also provide a basis for a variety of extension and service efforts which were envisioned when IUTAD was created.

Identification of Portuguese Counterparts:

Our closest working relationships were with the staff in the Department of Agricultural Economics and Sociology at IUTAD. All but one of them, Jose Portela who was in the field collecting research data, attended nearly all of the sessions. Teaching and administrative commitments occasionally prevented several participants from attending a few of the sessions. Members of the Department of Agricultural Economics and Rural Sociology and their area of expertise and interest are:

Maria Isolina de Jesus Curado Quintas Dinis Poeta	Farm Management and Department Chair- person
Jose Francisco Candra Portelo	Rural Sociology
Artur Arede Correia Cristovao	Rural Extension
Jose Manuel de Melo Vaz Caldas	General Economics

Maria Manuela Macedo Ribeiro	Sociology
Manuel Francisco Colaco do Rosario	Cooperatives
Francisco Jose de Sousa Diniz	Operations Research

In addition to the staff in the Department of Agricultural Economics and Rural Sociology, several other faculty members in the Departments of Agronomy, Animal Science, and Mathematics attended the course. Individuals from other institutions in the Tras-os-Montes region attended the course, including the Ministry of Agriculture, Commerce, and Fisheries (MACP) and the Instituto Financeiro de Apoio ao Desenvolvimento da Agricultura e Pescas (IFADAP).

Accomplishments With Respect to Objectives:

The primary objective was to teach an intensive graduate level course/ seminar. The three consultants divided the period from May 20 - June 9, 1982 into 26 two-hour sessions plus three field trips on consecutive Saturdays.

Two sessions were held each day; 4:30 - 6:30 p.m. and 7:30 - 9:30 p.m. This schedule offered the least conflict for the course participants who had various teaching and administrative responsibilities at IUTAD and with several regional institutions. This schedule was requested by the participants after our arrival in Vila Real. Material gathered by the students on the field trips was an integral part of the lectures and total seminar experience. Attachment A contains a detailed description of the outline which was presented to each of the students at the opening ceremony conducted at 10:00 a.m. on Thursday, May 20, 1982. The Reitor presided. More specific details on the course content is discussed later in this report.

A written course evaluation was completed by 20 students during the final class session. This evaluation provided useful insights into the value of this course/seminar and the importance of professional training seminars of this type in the future. Detailed results of the course evaluation are discussed later in the report. Attachment B contains a summary of the results and a copy of the survey instrument. The survey also contained information on the students background and professional experience.

The seminar was attended by an average of 25 persons at each session. Of the 27 individuals who enrolled in the course, 25 satisfied the requirements to receive a certificate. Attendance at two-thirds or more of the sessions was required to be eligible to receive a certificate.

In addition to seminar participation, each participant was offered an opportunity to earn one semester graduate credit hour in Agricultural Economics from Purdue University. Seven individuals elected to obtain one-graduate credit hour and satisfactorily completed the requirements. Each student wrote a paper under the supervision of one of the consultants-- Taylor (3), Martin (3), and Garoyan (1). These papers ranged from research proposals to the development of an extension publication. A special diploma was presented to each of these seven individuals in the graduation exercise. The graduation exercise, chaired by the Reitor, was held at 10:00 a.m. on June 9, 1982. (Attachment C).

The three consultants met with the staff of the Department of Agricultural Economics and Rural Sociology on Tuesday afternoon, June 8, 1982. This meeting focused on the potential future impacts of this training program on the staff and their teaching, research, and extension activities. Prof. John Foley also participated in this meeting. Also, a special final

evaluation session with the Reitor, the three consultants, and Professor Foley was held on June 9, 1982.

The remainder of this section of the report is devoted to a discussion and evaluation of each of the three major topics presented during the seminar--Marketing and Farm Cooperatives (Garoyan), Farm Management (Taylor), and Agricultural Development, Trade, and Policy (Martin).

Marketing and Farm Cooperatives. The overall objectives of the portion of the seminar devoted to farm cooperatives and marketing of farm products were to help participants understand the relevant principles and their application to Portuguese conditions. Emphasis was given to two different phases: (1) principles of cooperative marketing, and (2) principles of management applicable to cooperatives.

More specifically, emphasis was given in Part 1 to principles of cooperation as evolved from European and American experiences. Differences in principles of consumer and farm marketing cooperatives were identified. In addition, the role of cooperatives in the economy were identified, with advantages and disadvantages described for alternative forms of business organization.

In Part 2, the objective was to identify and teach business management principles with specific application to cooperatives. The importance of meeting an economic need of farmers was emphasized, coupled with the need to manage businesses in a sound manner to assure operational success. Important concepts of planning and performance evaluation were stressed, particularly from the viewpoint of boards of directors of cooperatives. Discussions were linked as much as possible to farm management and to

international trade and policy topics covered by other consultants.

Several different departments and institutions had participants at the seminar. This offered a wide base of experiences with farm cooperatives and helped stimulate class discussion. There were participants from farm credit and regional development institutions as well as from IUTAD. And the participants from IUTAD represented several disciplines.

The closest working relationships were developed with members of the Department of Agricultural Economics and Rural Sociology at IUTAD. Many informal consultations were held with each staff member, and a set of formal consultations were held near the completion of the course.

A copy of the seminar topics and an outline of the lectures is attached (Attachment D). While classes were held in the late afternoon and evenings to accommodate participants who were required to carry on their normal daily work activities, participation and attendance remained high throughout the session.

Participants obtained a good understanding of the topics of the lectures, and the discussion indicated their ability to apply the concepts to Portuguese conditions. For most participants, this was their first formal instruction on cooperatives and marketing. Their knowledge of cooperatives, from self interest and observations, were substantially greater than their knowledge of marketing principles. Yet, they were able to intelligently apply marketing concepts during class discussions. Participants were as interested in understanding general management concepts as they were in the principles of cooperation.

We were unable to carry-out all of the field trips as originally planned because the cooperatives we wished to visit as a group were unable to accommodate us on Saturday June 5, 1982. The travel distance to alternative cooperatives which could accommodate the class on June 5, 1982 was considered

too far to conduct interviews, and return within a reasonable number of hours. However, the need for a community dairy bull in a nearby village had been identified by a team of participants during one of Dr. Taylor's farm management field trips. Six volunteers returned to this village. This experience served as the basis for discussion with the entire class at its next regular meeting on how to form a local production cooperative. This enabled the group, and the class, to apply several concepts covered during the regular sessions, i.e., identification of farmers' needs; assessment of alternatives; organizational structures acceptable to farmers; patterns of leadership in the village; financial requirements of farmers, and their willingness to invest to overcome their problem(s).

Specific attention was given to long range planning and its application to cooperatives, and to methods of defining objectives, goals, and policies, and measuring of performance against objectives and goals. Such topics had not been previously presented to participants, and is expected to provide materials for classroom teaching at IUTAD, and for extension work with cooperative management and boards of directors.

Dr. Garoyan's lectures were presented in English, without a translator. A few of the participants encountered some problems in understanding Dr. Garoyan's lectures in English but three-fourths reported in the course evaluation that they had no problems following the lectures (Attachment B). Occasionally Dr. Caroyan would encourage ad hoc discussions in Portuguese after he had concluded his formal presentation of a topic. To ease the language problem, an outline of each day's lecture was prepared in Portuguese and distributed at the beginning of each lecture. Also, one of his publications on cooperatives which is available in Spanish was reproduced and a copy was given to each participant.

Small Farm Management. The overall objective of the farm management portion of the seminar was to help the participants develop a framework for analysis of alternative farm production practices. It is assumed by many that Portuguese farmers follow traditional practices and make few production decisions. Consequently, it is assumed that business analysis is futile. There is much evidence, however, that farmers in the Tras-os-Montes region do use fertilizer and pesticides. Their use is widespread even among the smallest, most isolated farmers. It has been said that while there used to be hunger in the region, it has been eliminated since farmers began to use fertilizer.

In order to conduct sound economic analysis and make suggestions which will help develop farming in this region, it is first necessary to understand the current production systems. Jose Portela, (Department of Agricultural Economics and Rural Sociology - IUTAD) has written well and wisely about the nature of the rural society in the region. Much is still to be learned about the nature of the alternative production schemes. For this reason Taylor and Martin spent considerable time prior to the seminar visiting several rural communities and talking with different farmers who use different production methods. Manuel Francisco Colaco do Rosario, Department of Agricultural Economics and Rural Sociology - IUTAD, was particularly helpful in arranging these visits and accompanied the consultants in the field. Prof. John Foley and Dr. Jim Ahlrichs, Purdue-USAID personnel in Vila Real, also arranged a one-day field trip and several other opportunities to visit with farmers and to see various farm production systems.

Little is known about the costs and returns from various enterprises in this region because the production patterns are quite complex and many

of the costs and returns occur outside the market place. In Indiana where corn and soybeans are the primary annual crops and 70 to 80 percent of the inputs represent cash purchases, the estimation of costs and returns is relatively simple and is primarily a matter of careful record keeping and some simple arithmetic. However, in the Tras-os-Montes region a particular parcel of land often produces several crops per year and the second crop may be planted before the first is harvested. Annual crops are frequently interplanted with perennials such as grapes or olive trees. This adds another major measure of complexity to the economic analysis. Few of the production costs are cash expenses. Also much of the production is devoted towards family consumption and is not sold in the market place. Therefore, the quantity produced and price estimations are difficult to determine.

The farm management portion of the seminar emphasized a systematic approach to analyzing the costs and benefits of a farming system. A framework was given for determining production costs and revenues from both crop and livestock production systems. While the emphasis was placed on budgeting annual crops and livestock, a framework was given for analysis of perennials.

The small farm management portion of the seminar included two field trips to visit with farmers. The participants were grouped heterogenously by institutional linkages and on the first field trip were asked to collect crop production budget information. In the second trip they were asked to emphasize livestock production budgets. The objective of these exercises was to show that although the production systems are complex they are amenable to economic analysis, and given adequate data, regional farm management recommendations for small farms would be feasible.

Since a key aspect of the USAID-Purdue project is institution building, a secondary objective was to encourage the staff members of the various institutions to work together. One means of doing this was to obtain from Joao Couthino, Ester Portela, and Ana Pires, Department of Agronomy staff at IUTAD, some preliminary agronomic data on fertilizing triticale. They were quite disappointed in their research results because variations in nitrogen application rates did not indicate that excessive nitrogen use decreased output. Their data, however, were very useful for economic analysis of fertilizer use. The results they were missing are always in the noneconomic output range. The data were presented in class along with various prices for fertilizer and triticale. The participants found exactly what production data are needed for economic analysis and that the economic analysis need not be very complex to be extremely useful for undergraduate classroom illustrations and for extension purposes.

While most of the farm management portion of the seminar emphasized small farm system analysis, one of the twenty hours was allocated to a discussion of some large farm management problems. Most of the emphasis was placed on recognition and resolution of interpersonal problems on multi-manager farms as well as recognition of the wide difference among enterprises in terms of investment implications, income levels, and income variability over time.

These farm management concepts and practical experiences were covered in six two-hour sessions plus two half-day field trips. Attachment E contains more detail on the specific subject matter contained in this portion of the seminar.

Few of the staff in the Department of Agricultural Economics and Rural Sociology have had significant direct contact with smaller farmers in the Tras-os-Montes region. The lack of farm-level data and direct staff

experience means that the undergraduate agricultural economics courses at IUTAD tend to emphasize the theoretical rather than the applied aspects of farm management. This, coupled with the fact that a minor fraction of the IUTAD students come from the Tras-os-Montes region and only a fraction of them have direct experience with farms, means that many students graduate from IUTAD without having any significant direct contact with farmers or practical farm experience. Thus, one key aspect of the seminar was to offer teaching examples and techniques which the IUTAD staff can incorporate into their teaching endeavors.

An essential aspect of the farm management portion of the seminar was two field trips to farms in the region. The specified objective of the first field trip was to find costs and yields data for one cropping pattern that farmers typically use on a single parcel of land. The seminar participants had to recognize that a single parcel usually produced two consecutive annual crops and that much of the production, while not marketed, nevertheless was used for family or livestock consumption and therefore was amenable to economic analysis.

As a result of the first field trip, one team talked to a farmer who was experiencing low yields. One of the team members recognized that the farmer was probably experiencing a potash toxicity problem brought about by liberal fertilization without adequate soil analysis. The staff member arranged for a soil analysis and plans to return to give the farmer further counsel. The same team also found that the farmers in the community had lost the services of the community bull. Since the Department of Animal Science at IUTAD has a project to produce superior sires, arrangements were made for the community to receive one of these superior sires.

For many, these farm visits were a first time experience. Consequently, the response to the field trips was gratifying in terms of stimulating, practical class discussion as well as improvement in professional skills and institutional linkages.

Agricultural Development, Trade, and Policy. Portugal's agricultural sector has essentially stagnated during the last decade. Agricultural productivity in Portugal is substantially less than in other European countries. And in recent years an increasing share of Portugal's food requirements have been imported.

For over two decades almost 10 percent of the Portuguese population, a majority from rural areas in Northern Portugal, have emigrated to neighboring countries. This, coupled with internal rural-urban migration, has reduced the available male labor supply and increased the dependence of the agricultural sector on women, children and older men to operate the small farms in Northern Portugal. Capital investment in Portuguese agriculture is very low by European standards. Consequently, low capital investment; labor market imperfections; limited research and extension support; a complex traditional land tenure system; multi-parcel, small scale farms; and a complex government agricultural subsidy program have limited the growth in Portugal's agricultural output and productivity.

Portugal plans to enter the European Economic Community in 1984. This process will require substantial adjustments in the agricultural sector, e.g., elimination of most agricultural subsidies and the imposition of the Common Agricultural Policy. The livestock, crops, fruits and vegetables, and wine industries will all be significantly affected.

The various aspects of the current state of Portuguese agriculture and the imminent changes it must undergo upon entry into the European Economic Community provided a logical framework for the selection and content of the topics on Agricultural Development, Trade, and Policy. (See Attachment F).

Several techniques were used to encourage group interaction and discussion. In the first session, after a presentation of the role of agriculture in economic development, the seminar participants formed small discussion groups to analyze the contribution of Portuguese agriculture in general and several commodities in particular (e.g., livestock, grains, wines, etc.) towards the development of the Portuguese economy.

Another didactic technique was to ask each participant to respond in writing to specific questions and then given them to Dr. Martin in the subsequent session. Their responses were tabulated and then used as a portion of the session on setting national and regional agricultural research priorities. Examples of the questions include:

- What are the two most important new technologies adopted by farmers in the Tras-os-Montes region in the last 5 years?
- What are the primary constraints to technological change in the Tras-os-Montes region?
- What are the highest priority socio-economic research questions in the Tras-os-Montes region?
- What has been the most successful domestic agricultural product or factor price policy in Portugal during the last 5 years? Why?
- What has been the least successful domestic agricultural product or factor price policy in Portugal during the last 5 years? Why?

- What are the highest priority domestic agricultural product or factor price policy research topics in Portugal?
- Where can the greatest productivity gains be made in Portuguese agriculture?

These and similar questions provided an excellent basis for class discussion. The teaching technique used was to briefly describe a problem area or issue, graphically present the underlying economic concepts, provide some empirical or quantitative information, and then offer opportunities for group reaction through individual questions or small group discussion followed by reports or responses from each of the small groups.

This approach was deemed appropriate for several reasons. First, it offered opportunities for an exchange of ideas among individuals from different institutions and departments within IUTAD. Second, it allowed the participants to develop their analytical skills. Third, it offered the instructor an opportunity to clarify issues and gain further insights into the problems and attributes unique to the agricultural sector in Portugal. Of course, for this technique to work well the consultant must have a fairly good mastery of the Portuguese language.

The divergence in interest areas and professional skills also requires considerable sensitivity and flexibility during the various sessions. Considerable effort was made to carefully explain basic economic concepts. Yet as appropriate in response to a question or to illustrate a concept, more specific methodological issues were discussed, e.g., how to estimate rates of return to investments in research and extension or how to specify and estimate a production function or supply and demand curves. These research oriented discussions also helped emphasize the importance of interdisciplinary interaction among social scientists and biological scientists.

The level of interest was high as indicated by class attendance and the excellent questions during and after class. The participants appeared to be hungry for answers to specific questions on ways to improve the performance of Portugal's agricultural sector and facilitate its entry into the European Economic Community. They also are seeking support and encouragement to improve the content of their undergraduate courses and to find ways to develop their research skills.

Analysis and Identification of Problems Encountered:

Preparation for Course by IUTAD. There had been only minimal preparation for the course by the IUTAD staff prior to the arrival of the consultants. An intensive graduate level course of this type was a new experience for the faculty in the Department of Agricultural Economics and Rural Sociology. However, once the basic organizational issues were resolved, the faculty very diligently and effectively followed through with the necessary logistical support, e.g., field trip arrangements, reproduction of materials, attendance control, scheduling staff meetings, setting-up audio-visual equipment, etc. The modest delay in the intended date for the first class gave the consultants additional time to visit farms and cooperatives in the region and to adjust lesson plans, as appropriate, to reflect economic conditions and problems in the Trans-os-Montes region. This enhanced the relevance and quality of the course content.

IUTAD Staff Promotion. University professors in Portugal under a recent national law are obligated to earn a Masters degree or pass a rigorous exam within three years of initial employment and a Ph.D. after eight years. However, at IUTAD there is no clear provision or procedure for them to be away from campus to earn an advanced degree. And there are no opportunities for graduate work within a reasonable commuting distance. This creates great

frustration among the faculty. Either there must be a change in policy or IUTAD will experience a constantly rotating staff as they are dismissed when they encounter the three or eight year deadline. The opportunity for receiving graduate credit from this course was a small step in the needed direction.

Communication Among the Faculty. There seems to be no regular provision for faculty meetings. There are few departmental meetings. The members of the Department of Agricultural Economics and Rural Sociology do meet regularly but they do not meet with other departments. Because of the great potential for intellectual stimulation and problem solving which can be derived from interdisciplinary interaction, it is important that the faculty be encouraged to meet on a regular basis to discuss and resolve mutual professional problems. This seminar, with significant emphasis on discussion, helped to build communication bridges among the faculty but this interaction needs to be institutionalized and continued on a regular basis.

The field trips required each team to have as diverse a group as possible with respect to professional expertise and institutional linkages. During the seminar it appeared that these professional and institutional linkages were substantially improved. More importantly, there appeared to be enthusiasm to maintain and enhance these linkages.

Quality of the Staff in the Department of Agricultural Economics and Rural Sociology and Prospects for Improvement. In a new university begun in 1976, in a rather culturally isolated region, one might expect that the administration would only be able to attract a second rate staff with the better trained and motivated individuals going to more established and better located universities. However, our combined observation is that this staff

is composed of people with uncommonly high potential. Furthermore, they have already demonstrated a high degree of professional competence, enthusiasm, and concern for regional problems. They also have worked very hard to develop a curriculum and course content for a new university that has only recently evolved from a three to a five year program. Each of the consultants met for at least one hour, and usually more, with each of seven members of the Department of Agricultural Economics and Rural Sociology. The discussion focused on their training, responsibilities at IUTAD, and teaching/research/extension interests and concerns. All three consultants were very favorably impressed with professional efforts and their keen interest in doing a good job better. For example, while we were in Vila Real, Artur Cristovao made a significant presentation at an Extension Workers Workshop in Braganca. His presentation was hailed by administration and extension workers alike as being outstanding. Manuela Ribeiro was asked to make a brief presentation to the seminar participants just prior to their departure for the first field trip. She discussed how to approach and work with farmers when seeking technical and socio-economic information. Her presentation would have been excellent at any major university.

A major problem facing the IUTAD administration is how to keep the staff in the Department of Agricultural Economics and Rural Sociology. They need encouragement and opportunities to take advantage of further training so that they can become even more productive. Unless considerable direct administrative attention is given to staff development along with adequate funding this department is likely to begin to lose its current staff to other employment opportunities. This occurred in the early years of the IUTAD program. Also, if the staff does not have challenging academic training opportunities, they may begin to experience the paralysis of burnout association with overwork and under recognition.

Teaching, Extension, and Research Complementarity. There is a great deal of complementarity between teaching and research. So often the data needs and descriptions of the current economic situation which are essential to exciting, effective teaching programs are not known or available. Research contacts with other researchers could stimulate useful, problem-solving research efforts. This empirical research information is critical in Portugal as the agricultural sector strives to satisfy the domestic, European Community, and international demands which are expected to be placed upon it in the decade ahead.

Teaching and extension also are very complementary activities. An extension worker who has frequent contacts with producers and marketing institutions is better able to identify critical researchable problems. As alternative solutions are developed, it is important that these be shared in the university classroom and with professionals through extension efforts. There seem to be two key needs. First, the complementarity of these activities must be recognized; as it is already by some. Second, institutional linkages must be developed to encourage IUTAD staff to engage in research and extension activities. This requires the availability of funds and careful program design.

Undergraduate Course Needs. The Department of Agricultural Economics and Rural Sociology does not offer undergraduate courses in marketing or cooperatives. These are two critical economic problems in Northern Portugal. However, according to IUTAD rules the Department is unable to teach these classes because the students' coursework is predetermined and no course flexibility is permitted. No system of course electives or substitution exists. IUTAD should be encouraged to reconsider its curricula requirements and offerings.

Another problem which exists is that there are no formal arrangements for IUTAD staff to train either extension workers or to work on extension projects directly associated with cooperatives. The need for cooperative director and management education appears to be very large. So does the need for applied research on agricultural marketing and cooperatives. The IUTAD has staff interested in teaching cooperative topics both as a course at IUTAD and as extension projects. And both would probably be well accepted.

Future Requirements and Proposed Actions:

The recommendations which follow are based on the consultants' individual interviews with staff members in the Department of Agricultural Economics and Rural Sociology, a two and one-half hour evaluation session with the staff held on June 8, 1982, a written course evaluation (See Attachment B) conducted in the last class session on June 7, 1982, informal contacts with course participants from institutions other than IUTAD, and intensive conversations with long-term advisors, Prof. John Foley and Dr. Jim Ahlrichs. However, an important caveat is that these recommendations are based on a relatively brief association with these various individuals and the institutions they represent.

The consultants propose eight key recommendations. They include the following: (1) staff promotion and development, (2) interdepartmental communication and coordination, (3) curricula design and development, (4) research support and experience, (5) development of an extension training and support program, (6) improved library facilities, (7) computer support system, and (8) future seminars.

Promotion and Staff Development. A plan must be developed which will offer consistent hiring, employment requirements, and training opportunities. IUTAD has been fortunate to hire young, able, enthusiastic people to staff the Department. However, a program must be developed which will allow a rotation of teaching responsibilities so that different staff members can take a leave of absence to obtain advanced graduate training. While these individuals are away, they should retain their staff position. Of course, upon completion of advanced training, the staff members should be required to return and teach for a minimum pre-determined time so that others may leave to obtain advanced graduate training.

In addition to a plan to allow faculty members to receive advanced degrees, shorter term training and activities similar to this intensive graduate level seminar would be very helpful. An essential need for this young staff is to have an opportunity to interact with experienced professionals. Discussions about course content and teaching approaches were eagerly sought by many of the staff. Contact with experienced professionals is essential to the maturity and professional growth of this young, enthusiastic but inexperienced faculty.

Interdepartmental Communication. In order to stimulate interaction and communication among the IUTAD staff, such a program must be implemented by the administration. Holding faculty meetings to determine policy and to inform the staff is unlikely to be very conducive to staff interaction. Instead, a regularly scheduled seminar series offered by the staff to their colleagues could provide the basis for this interaction. The primary criterion for the seminar topic should be that the topic be of interest to members of several departments. While faculty involvement in policy and

administrative issue is a worthy goal, the long-run growth and strength of the broad educational goals of IUTAD will be a function of the professional expertise and creativity of the faculty. Seminars which focus on timely topics and draw on internal and external expertise can play a critical role in this institution building process.

Curricula Design and Development. There are no electives in the undergraduate program in each of the three options offered by IUTAD - Animal Production, Agricultural Production, and Forestry. Furthermore, the pre-determined courses must be taken in a lock step fashion since lower level courses serve as prerequisites for higher level courses.

The faculty does have, however, the authority, indeed the responsibility, to develop the subject matter content of each of the undergraduate courses. The following should be included in the design of the undergraduate courses:

(1) At least two faculty members in each department should be prepared to teach one of the core courses, e.g., introductory agricultural economics, basic soils course, etc. This will make it easier for staff members to take a leave of absence on a rotating basis to pursue advanced degrees.

(2) Each course should stress problem definition, relevant theory, and application to Portuguese conditions.

(3) Efforts should be made to use innovative teaching techniques, e.g., field trips, color slides, outside speakers, group or individual projects, etc. Dr. Jim Alhrichs is an experienced undergraduate teacher and is a very useful resource.

Additional courses should be added in the Department of Agricultural Economics and Rural Sociology. The current economics curriculum tends to stress micro and macro economics with a heavy emphasis on theoretical aspects.

Although students are presented with some farm management and production economic concepts, other areas are omitted. Major omissions include marketing, cooperatives, international trade, agricultural policy, and agricultural finance. Marketing has been identified as an important economic problem in Portugal. This encompasses general marketing concepts, as well as the role and management of cooperatives. A better understanding of international trade and agricultural policy will become critical as Portugal enters the European Economic Community. Major changes in financial institutions, policies, and operations will be required to satisfy the capital requirement for Portugal's agricultural sector which will require massive amounts of capital investments to improve its productivity and make it more competitive.

In conjunction with the development of new elective courses in agricultural economics should be the design of a separate discipline in agricultural economics. The current IUTAD program emphasizes the production aspects of agriculture. Sound production decisions, analysis of new technologies, and improved marketing and policy strategies will depend on sound economic analysis. IUTAD should seriously consider the necessary expansion of courses, staff, and funding to offer a major in agricultural economics.

Research Support and Experience. The current faculty in the Department of Agricultural Economics and Rural Sociology has limited applied research experience. Opportunities for graduate level training will make a major contribution to the improvement of their applied research capability.

To help this young staff gain research experience, develop a solid research thrust, and coordinate research activities, the presence in Vila Real of an experienced, research-oriented agricultural economist would be extremely beneficial. Several options should be considered. IUTAD could hire a Portuguese agricultural economist with at least an M.S. degree from a reputable university and several years of applied research experience.

Another possibility would be to place a Ph.D. candidate in agricultural economics in Vila Real for 12-18 months. The student would be expected to spend one-half his/her time assisting the IUTAD staff. The rest of the time would be devoted to the student's Ph.D. thesis research. The research topic could be entry of Portugal into the European Economic Community, cooperatives, or adoption of alternative technologies in the Trás-os-Montes region. The student's major professor would be expected to make at least two three week trips to Portugal during the time the student was in residence in Vila Real. A Ford Foundation Base Grant to the Department of Agricultural Economics at Purdue University in the early 1970's supported four Ph.D. students in Brazil under this type of arrangement. It was a very successful venture for both the students and the host institutions.

A final alternative would be to place a long term agricultural economist in Vila Real. Dr. John Sanders is currently serving in this capacity in Evora.

The IUTAD administration must encourage and assist staff members in the preparation of research proposals and the pursuit of research funding support. Cooperatives, Ministry of Agriculture, and other agencies are possible funding sources.

Extension Training. One of the mandates of IUTAD is to provide training support for the extension service. Continual efforts are required to develop professional and institutional linkages.

IUTAD should be encouraged to develop an on-going program that requires interdisciplinary research and training efforts with extension staff. For example, annual field days or workshops on new technologies would offer a forum for presenting research results to extension workers. The staff could develop research and extension publications based on a variety of interdisciplinary research endeavors.

This approach has several advantages. Research activities and publications will enhance the professional skills of the staff. It also is necessary for promotions and salary considerations. Moreover, institutionalized working relations between IUTAD and extension workers will increase the likelihood that research results reach farmers and other appropriate clientele. And interaction between researchers and extension workers will enhance the relevance and timeliness of the research activities carried out by the IUTAD staff.

Library. The library facilities at IUTAD are completely inadequate. The number and quality of books is insufficient for research or teaching purposes. Furthermore, the library is used by students for conversation rather than study. Additional library space and reference materials should be given high administrative priority.

Computer Support. If any significant research efforts are going to be undertaken, the computer facilities must be expanded. Computers also can be effectively used in the undergraduate teaching program, i.e., preregistration, class scheduling, farm management games, applications of linear programming, etc. A careful review of computer needs and hardware and software options is urgently needed.

Seminars. A similar program such as this one conducted in Vila Real could be beneficial at the other two locations of the AID-Purdue project in Portugal. Such efforts merit further consideration by USAID, Purdue University, and counterpart institutions. Moreover similar graduate level seminars should be conducted in other departments on other topics of mutual interest at IUTAD.

Some staff would benefit from additional advanced university training in cooperatives. Also, they could benefit from observing marketing practices and cooperative organizations in the U.S. and Europe.



MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

INSTITUTO UNIVERSITÁRIO DE TRÁS-OS-MONTES E ALTO DOURO

CURSO DE ECONOMIA AGRÁRIA

20 MAIO - 9 DE JUNHO DE 1982

ABERTURA: (10h00 - AUDITÓRIO QUINTA DE PRADOS)

P R O G R A M A

<u>16h30 - 18h30</u>		<u>19h30 - 21h30</u>
<u>Quinta de Prados</u>		<u>Sala 50 - DRM</u>
20/5/82 (5. ^a F)	Teoria económica de gestão (Taylor)	Papel da agricultura no desenvolvimento agrícola (Martin)
21/5/82 (6. ^a F)	Orçamento geral (Taylor)	Teorias de desenvolvimento agrícola (Martin)
22/5/82 (Sábado)	-	Introdução (8h00) Visita ao campo: produções agrícolas (Taylor) (9h00)
24/5/82 (2. ^a F)	Orçamento específico (Taylor)	Teorias de cooperativismo (Garoyan)
25/5/82 (3. ^a F)	Princípios de cooperativismo (Garoyan)	Política agrícola (Martin)
26/5/82 (4. ^a F)	Tipos, organização e vantagens do cooperativismo (Garoyan)	Comércio internacional (Martin)
27/5/82 (5. ^a F)	Sistemas de produção agrícola (Taylor)	Teorias de Comércio internacional (Martin)
28/5/82 (6. ^a F)	Encargos Fixos (Taylor)	Operação de Cooperativas (Garoyan)
29/5/82 (Sábado)	-	Introdução (8h00) Visita ao campo: pecuária (Taylor) (9h00)
31/5/82 (2. ^a F)	Financiamento de Cooperativas (Garoyan)	Sector agrícola em Portugal (Martin)
1/6/82	Gestão e operação de Cooperativas (Garoyan)	PAC - Mercado Comum (Martin)



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INSTITUTO UNIVERSITÁRIO DE TRÁS-OS-MONTES E ALTO DOURO

16h30 - 18h30
Quinta de Prados

19h30 - 21h30
Sala 50 - DRM

2/6/82 (4. ^a F)	Gestão e operação de Cooperativas (Garoyan)	Entrada de Portugal no Mercado Comum (Martin)
3/6/82 (5. ^a F)	Análise das visitas ao campo (Taylor)	Gestão e operação de Cooperativas (Garoyan)
4/6/82 (6. ^a F)	Gestão e operação de Cooperativas (Garoyan)	Pesquisa (Martin)
5/6/82 (Sábado)	-	Introdução (8h00) Visita a algumas Cooperativas (Garoyan) (9h00)
7/6/82 (2. ^a F)	Análise das visitas às Cooperativas (Garoyan)	Aspectos metodológicos (Martin)
9/6/82 (4. ^a F)	ENCERRAMENTO (10h00 - AUDITÓRIO DA QUINTA DE PRADOS)	

NOTA: Os participantes interessados em obter crédito (1) na Universidade de Purdue deverão contactar os orientadores durante a primeira semana de funcionamento do Curso (dias 21 e 22 de Maio).

ATTACHMENT B

A Summary of the Course Evaluation

A written course evaluation was completed in the last session by 20 of the 25 students who completed the course. The results of the course evaluation can be summarized as follows:

1. The students took the evaluation seriously and made distinctions among subject matter, style of presentation, language skills, and value of the course.

2. They liked all parts of the seminar.

3. While they preferred the instructor who spoke fluent Portuguese, they still preferred weak Portuguese to lectures entirely in English. However, three-fourths of the participants had no trouble with English.

4. They liked the field trips, but would have preferred to have had more answers and fewer questions raised by them -- a common reaction among students the world over.

5. They preferred the late afternoon and evening sessions because it interfered the least with their professional responsibilities at IUTAD and elsewhere.

6. There was a unanimous endorsement of the idea to have similar seminars in the future, probably in other subject matter areas, however.

7. Seven participants earned graduate credit from Purdue University and considered this to be a valuable experience.

8. While the students were mostly from the IUTAD (13 of 20 respondents) agricultural credit (IFADAP) and several other agriculturally oriented institutions participated.

ATTACHMENT B. (continued)

9. The participants reflected a wide range of experience at various institutions and in various other countries (40 percent). Most were associated with IUTAD.

10. Half of the students had participated in other seminars like this one, both in Portugal and in other countries. Livestock management, cooperative operation and extension methods were the most common topics in previous seminars.

11. Several liked the teaching approaches used in this seminar and none commented unfavorably.

12. Some treasured the opportunity for interaction with the seminar teachers.

ATTACHMENT B (continued)

CURSO DE ECONOMIA AGRÁRIA

20 de Maio - 9 de Junho de 1962

QUESTIONÁRIO DE AVALIAÇÃO

1. Na minha opinião os seguintes tópicos do curso tiveram interesse

	Concordo inteiram.	Concordo c/reserv.	Discordo c/reserv.	Discordo complet.	Não tenho opiniã
PROF. TAYLOR					
a) Teoria económica da gestão	10	9	1		
b) Orçamento geral	9	7	1		3
c) Visita de campo: C. agrícolas	12	6			3
d) Análise das visitas	9	6	3	1	1
e) Encargos fixos	11	5			4
f) Custo de Culturas vivazes	9	6			5
g) Visita de campo: p. pecuária	12	6			3
h) Análise das visitas	9	6	3	1	1
	10.1	6.4	1.0	0.3	2.1
PROF. MARTIN					
a) Papel da Agricultura no desen- volvimento	20				
b) Teorias de desenvolvimento	15	3	1		1
c) Política agrícola	14	5			1
d) Comércio internacional	13	2	1		5
e) Teorias de Comércio interna- cional	14	2	1		3
f) Sector Agrícola em Portugal	14	5			1
g) PAC - CEE	12	7			1
h) Adesão de Portugal à CEE	11	7	1		1
i) Pesquisa	11	4	1		4
j) Aspectos Metodológicos	8	10	1		5
	13.2	4.5	0.6	0.0	2.4

ATTACHMENT B (continued)

PROF. GAROYAN		Concordo inteiram.	Concordo c/reserv.	Discordo c/reserv.	Discordo complet.	Não tenho opiniã
a)	Teorias do Cooperativismo	8	11			1
b)	Princípios do Cooperativismo	11	6	1		3
c)	Tipos, organização e vant. Coops.	9	4			7
d)	Funcionamento de Coops	14	5	0		1
e)	Financiamento de Coops	12	3	1		4
f)	Gestão e Funcionamento de Coops	13	1	1		6
g)	Visita a algumas Cooperativas	4	1	1	1	12
h)	Análise das visitas	7	6	1	1	4
		9.8	4.6	0.6	0.3	4.5
2.	a) O curso foi demasiado longo			7	11	1
	b) Preferi as sessões à tarde e à noite em vez de manhã e de tarde	14	2	2	1	1
	c) Cursos intensivos do mesmo ti- po devem ser organizados e de dos pelo IUTAD no futuro	20				
	d) O crédito oferecido pela Uni- versidade de Purdue foi útil	9				7
	e) Não tive dificuldade em per- ceber as aulas em inglês (Garoyan)	11	3	5	1	
	f) Não tive dificuldade em per- ceber as aulas em português (Martin)	19	1			

ATTACHMENT B (continued)

	Concordo inteiram.	Concordo c/reserv.	Discordo c/reserv.	Discordo complet.	Não tenho opiniã
g) Não tive dificuldade em perceber as aulas em português (Taylor)	<input type="text" value="14"/>	<input type="text" value="7"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
h) Os <i>sumários</i> das aulas do Prof. Garoyan foram úteis	<input type="text" value="18"/>	<input type="text" value="1"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ÁREA PROFISSIONAL Credit -4, Agronomy -3, Economics -5, Farm Management -1, Animal Science -6, Sociology -1, Biology -1

GRAU ACADÊMICO B.S./B.A. 17, Agricultural Engineering -1, High School -1, M.S. -1,

INSTITUIÇÃO E EXPERIÊNCIA IUTAD -13, IFADAP -5, Other -2

ÁREA	Nº DE ANOS Total/people answering
<input type="text"/> Instituição Universitária	<u>42/13</u>
<input type="text"/> Outra Instituição de Ensino	<u>25/6</u>
<input type="text"/> Agricultura	<u>12/3</u>
<input type="text"/> Cooperativas	<u>5/3</u>
<input type="text"/> Banco ou Instituição Financeira	<u>5/4</u>
<input type="text"/> MACP - Investigação	<u>0</u>
<input type="text"/> MACP - Extensão	<u>4/2</u>
<input type="text"/> MACP - Administração	<u>2/1</u>

ATTACHMENT B (continued)

<input type="checkbox"/>	Contra Instituição Governamental	4/2
<input type="checkbox"/>	Organismo privado	8/2

Quantos anos viveu fora de Portugal _____

Country - years

Em que país ou países Mosambique -29, 10, 22; India, Angola -17;

Angola -30, 25 -25; Timor -2.

Já participou noutros cursos intensivos de curta duração SIM NÃO

0-6; 1-7; 2-2; 3-2

Em caso positivo indique o assunto, local e duração

Assunto	a _____	b _____	c _____
Local	a _____	b _____	c _____
Duração	a _____	b _____	c _____

Comentários ou sugestões Repeat with other subjects -6

Useful - 2

Longer - 2

A text or more written material desirable - 2

Keep subject areas separate - 1

Credit is very important - 3

Get instructors from other countries - 1

Liked teaching style - 1

Do at less busy time - 1

Contact with professors enriching -1

Plan farther in advance for more preparation - 1



MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

INSTITUTO UNIVERSITÁRIO DE TRÁS-OS-MONTES E ALTO DOURO

CURSO DE ECONOMIA AGRÁRIA

SESSÃO DE ENCERRAMENTO

Agenda de trabalhos

9 de Junho de 1982

1. Palavras do Sr. Reitor
2. Palavras do Prof. Foley
3. Palavras do Prof. Martin
4. Distribuição dos Certificados
5. Palavras do Departamento de Economia
e Sociologia
6. Palavras finais do Sr. Reitor

Outline of Lectures/Seminars on Cooperatives

Theory of Cooperation

I. Introduction

- A. Alternative Forms of Business Organization
- B. Importance of Cooperatives in Portugal
- C. Definition of Cooperatives
- D. Criteria Distinguishing Cooperatives

II. Basis for Cooperative Development

- A. Economic Needs
- B. Philosophic Needs

III. Evolution of Cooperative Theory

- A. Pre-Rochdale
- B. Rochdale Society
- C. Post-Rochdale Contributions
- D. Contemporary U.S. Theories

Cooperative Principles

I. Distinctive Cooperative Characteristics

- A. Voluntary Associations
- B. Capitalistic - free enterprise entities
- C. Other distinctive features

II. Specific Principles of Cooperation

- A. Pioneer concepts
- B. Rochdale
- C. International Cooperative Alliance

III. Other Principles/Practices

- A. Open or Selective Membership
- B. Political, Religious, and Racial Neutrality
- C. Trade only with members?
- D. Market Prices and Cash Trading

IV. Differences in Principles: Consumer and Producer Marketing Cooperatives

- A. Consumer
- B. Marketing

V. Importance of Co-op Principles for Success

- A. Fundamentalists
- B. Empirical Evidence

Types and Structures of Cooperatives

I. Groups Served and Functions

- A. Agriculture
- B. Consumer
- C. Worker
- D. Fishery

II. Areas Served

- A. Local
- B. Regional Centralized
- C. Federation

III. Limitations of Cooperatives

- A. Economic Limitations
- B. Operational

IV. Benefits of Cooperatives

- A. Competitive Yardstick
- B. Improved Business Knowledge of Members
- C. Community Benefits

Marketing Cooperative Operating Practices

- I. Main Operating Practices
 - A. Purchase
 - B. Agent
 - C. Pooling
- II. Recent Developments in Operating Practices
 - A. Multi-commodity Co-ops
 - B. More Centralized Control
 - C. Increased Merger Activity

Cooperative Finance

- I. Sources of Capital
 - A. Basic Sources
 - B. Beginning Capital
 - C. Capital from Operation
 - D. Financial Ratios

Management of Cooperatives

- I. Total Management Concept
 - A. Management Definitions
 - B. Alternative Concepts of Management
 - C. Functions of Management
- II. Responsibilities of the Board of Directors
 - A. Portuguese Law
 - B. General Management Responsibilities
- III. Board-Management Decision Responsibilities
- IV. Discussion: Board of Directors in Cooperatives
 - (A series of agree/disagree discussion questions)

Planning in Cooperatives

- I. Planning Functions
 - A. Planning defined
 - B. Scope of Planning
 - C. Examples of Cooperative Planning
- II. Board's Responsibilities for Planning
 - A. Objectives
 - B. Goals
 - C. Policies
- III. Components of Long Range Plans
- IV. Problems of Long Range Plans

Measuring Cooperative Performance

- I. Introduction to Business Controls
 - A. Definition of Control
- II. Purposes of Control
- III. Principles of Control
 - A. Key Performance Areas
 - B. Key Indicators
 - C. Examples

Board of Directors: Organization and Operations

Twenty statements of Board of Directors Organization and Operations were distributed for participants to either agree with or disagree, and to explain why. General discussion followed.

Marketing and Cooperative Potentials in Portugal

- I. Class Report by a survey committee on feasibility of a cooperative to provide bull service in a village.
- II. Main Marketing Problems in Portugal
 - A. Agricultural Marketing Situations
- III. Priority Marketing Research Needs
 - A. Based on Class Discussion

Small Farm Management

Robert W. Taylor

- I. Economic Theory in Farm Management
 - A. Factor-Product Analysis
 - B. Practice With Preliminary Triticale Data
- II. Farm Budgeting
 - A. Direct and Indirect Costs
 - B. Fixed and Variable Costs
 - C. Complete Farm Production System Analysis
 - D. Farm System Analysis
 - 1. Data Needs and Collection Philosophy
 - 2. Data Collection for Crops
 - 3. Data Analysis
 - 4. Data Collection Discussion
- III. Asset Ownership Costs
 - A. DIRTIS with practice
- IV. Perennial Crop Budget Analysis
 - A. Discounted Net Present Value Approach
- V. Farm Animal Costs and Return Estimation
 - A. Direct, Indirect, and Non-market Costs and Returns
 - B. Data Collection, Analysis, and Discussion
- VI. Role of Farm Management
 - A. To Increase Farm Income
 - B. To Improve University Capabilities

Agricultural Development, Trade, and Policy

Marshall A. Martin

- I. The Role of Agriculture in Economic Development
 - A. Source of Food
 - B. Source of Labor
 - C. Source of Foreign Exchange
 - D. Source of Capital
 - E. Market for Non-Agricultural Goods and Services
- II. Some Theories of Agricultural Development
 - A. The Conservation Model
 - B. The Urban-Industrial Impact Model
 - C. The Diffusion Model
 - D. The High Pay-off Input Model
 - E. The Induced Development Model
- III. Agricultural Policy
 - A. Objectives of Government Intervention
 - B. Methods to Support Product Prices and Income
 - 1. Minimum Price
 - 2. Deficiency Payments
 - 3. Subsidized Consumption
 - 4. Limits on Production or Sales
 - 5. Production Subsidies
 - C. Price and Income Stabilization
 - D. Resource Allocation

IV. International Trade

- A. Why Trade?
- B. Key Factors Which Influence Trade
- C. Recent Trends in World Agricultural Trade

V. Some Trade Theory

- A. Impacts of Tariffs and Quotas
 - 1. Small Country Assumption
 - 2. Large Country Assumption
- B. Non-Tariff Barriers to Trade
- C. Export Subsidies
- D. Currency Values and Trade

VI. Portugal's Agricultural Sector

- A. An Overview
- B. Crop Production
- C. Livestock Production
- D. Per Capita Food Supply
- E. Input Use
- F. Government Subsidies
- G. A Summary of Portugal's Agricultural Sector Performance and Selected Economic Theories
- H. Some Policy Recommendations

- VII. The European Community and the Common Agricultural Policy
 - A. Brief History of the EC
 - B. Objectives of the Common Agricultural Policy
 - C. The Key Policy Instruments
- VIII. Portugal's Entrance into the Common Market
 - A. Implications for Grains
 - B. Implications for Livestock
 - C. Implications for Fruits, Vegetables, Sugar, and Wine
 - D. Potential Impacts on EC-10
 - E. Implications for the Rest of the World
 - F. Some Critical Unresolved Policy Issues
- IX. The Research Agenda for Portuguese Agriculture
 - A. A Summary of Seminar Participants' Suggestions for Socio-Economic Research Issues
 - B. High Priority National Research Issues
 - C. High Priority Regional Research Issues
- X. Some Methodological Issues
 - A. Farm Surveys
 - B. Marketing Surveys
 - C. Returns to Investments in Agricultural Research and Extension
 - D. Labor Markets
 - E. Resource Use
 - F. Nominal and Effective Protection