

WM=33715

CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Technical Consultants and Training Subactivity (A.I.B.I.): Rural Universities Development, Purdue University Contract No. AID/NE-C-1701			2. PROJECT NUMBER 150-0001	3. MISSION/AID/W OFFICE USAID/Lisbon
5. KEY PROJECT IMPLEMENTATION DATES A. First PRO-AG or Equivalent FY 79 B. Final Sub-Obligation Expected FY 83 C. Final Input Delivery FY 85			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
6. ESTIMATED PROJECT FUNDING A. Total \$ B. U.S. \$2,897,425		7. PERIOD COVERED BY EVALUATION From (month/yr.) August 1980 To (month/yr.) February, 1983 Date of Evaluation Review February 1983		

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate A/C/W or regional office action should specify type of document, e.g., program, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Ensure meetings between Ministry of Education and Rectors on a regular basis to resolve outstanding problems -- e.g. lack of career credit for faculty conducting extension	USAID/ME	Continuing
2. Develop revised budget and implementation schedule for remainder of project, including required extension of life of project and increased funding through PIO/T amendment.	Purdue/USAID AID/W	May 31, 1983
3. Focus on definition and implementation of common activities - e.g. teacher/learning centers, library development, laboratory programming, curriculum adjustments.	Purdue/Univ.	Continuing
4. Develop a simple mechanism for meeting costs from PL480 funds of the U.S. long term Advisor to perform his role as coordinator in Portugal.	USAID/Purdue ME	May 31, 1983
5. Amend sub-contract between Clemson and Purdue.	USAID/Purdue AID/W	June 30, 1983
6. Strengthen coordination with PROCALFER and sharing of visiting consultants among U.E., I.U.T.A.D. and PROCALFER.	USAID/USDA Universities	Continuing

9. INVENTORY OF DOCUMENTS TO BE REVIEWED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify)	A. <input checked="" type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T		B. <input type="checkbox"/> Change Project Design and/or	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify)	<input type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P		C. <input type="checkbox"/> Discontinue Project	

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER BANKING PARTICIPANTS APPROPRIATE NAMES AND TITLES Charles A. Buchanan, Jr., USAID Project Mgr. Dr. Jacques Calazans, Dir. Gen., Min. Education José Luis Pinheiro, USAID Project Specialist George Miller, NE/TECH, AID/W Woods Thomas, Director Purdue University		12. Mission/AID/W Office Director Approval Signature Typed Name Donald Finberg, AID Rep. Date April 18, 1983	
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13. This was the second annual review (also called evaluation in this paper) of the program of cooperation between Purdue University and three rural universities/university institutes. These reviews are provided for under Section IV.B of AID Contract NE-C-1701. The review team consisted of the USAID, the three Portuguese Institutions, the Ministry of Education, the Purdue long term advisor in Portugal (Thomas Gunter), Clemson University Assist. Dean of Textile School (Thomas Efland), Purdue University Director of International Programs (Woods Thomas), and AID/W/NE/TECH backstop officer (George Miller). All were impressed with the mature, friendly and frank approach taken by the Portuguese leaders.

The review re-confirmed the validity of the general goals of the project as well as the specific objectives set for each institution, as set forth in Appendix A, Parts I and II of the AID contract. However, several changes in the project setting occurring since 1979/1980 have required some adjustments in the project inputs.

As reported at the time of the last annual review (Nov.1981), the most significant changes have been the "upgrading" of two of the institutions from Polytechnic Institutes to University Institutes of Trás-os-Montes e Alto Douro (IUTAD) and Beira Interior (IUBI). The former University Institute of Évora was also elevated to the status of the University of Évora (UE). This has involved a lengthening of the teaching programs from three to five years and increased the emphasis on upgrading teaching staff to Phd level as soon as possible. (Portuguese Law now requires all faculty to have Phd level qualifications by 1986). Nonetheless, the basic tasks of teaching, conducting applied research, and undertaking extension activities that benefit the regions where these institutes are located, continue to be the priority areas of activity. These activities, if properly conceived and implemented, will enable these institutions to have a significant impact on Portuguese economic and social development.

There is evidence of considerable institutional progress since the 1982 evaluation, although much remains to be done. Leadership at all three institutions is effective at the top and, increasingly, at lower echelons. The "land grant college" concept is thoroughly endorsed and active efforts are being made by the institutions to meet community needs through research and extension activities.

Each institute's program of work and plans for faculty development have been strengthened, and productive linkages with other Portuguese institutions are being developed. There are growing relationships and interdependencies with

branches of other ministries who now turn to these institutions for advice and collaboration. All of these favorable trends are at least partially attributable to the AID supported project.

The most significant problem areas continue to be teaching budgetary shortages, shortage of trained and experienced staffs, limitations on student enrollment, and the need to place laboratory facilities in full operation. Problems of undefined, inadequate or unformalized working relationships between the Ministries of Education and Agriculture or Industry also exist. As might be expected, some of the institutions are more advanced both physically and institutionally than others; each has a different mix of difficulties and obstacles to overcome.

14. Evaluation Methodology

The evaluation was conducted during the period of February 7-18. A copy of the schedule is attached hereto as Attachment I. The first week consisted of field visits by the evaluation team to the three institutions. This provided an orientation for the team members who had not previously visited the university facilities and an opportunity for other team members to compare progress, growth, and problem areas with previous experience. Discussions at each institution were held by the team with Rectors, department heads, and faculty members. Both the general project objectives set forth in the contract and the specific objectives for each institution were discussed in depth. Summaries of activities conducted by each institution is attached hereto.

The visits were followed by 2-1/2 days formal meetings in Lisbon, on February 16-18. The meetings were chaired by the Director General of Higher Education (Ministry of Education) and attended by the Rectors of the three institutions, as well as representatives of Purdue University, Clemson University, AID/W and USAID/Lisbon. Attachment II is a schedule of these meetings.

The review focused on the objectives of the program and the institutional impact to date. Expenditures in dollars and escudos since 1980 were examined. A copy of the dollar expenditure report as of 12/13/82 is attached. Preliminary dollar and escudo budgets for the period 1983-1985 were reviewed, as well as proposed training and consultant activities. New initiatives of the universities in the fields of teaching, research, and extension which were proposed for funding under a new allocation of PL480 counterpart totaling almost \$2,000,000 were also discussed.

15. Constraints

All of the institutions are encountering some difficulty in coping with an increasing student body, limited staff and training facilities, the requirement to train faculty to the Phd level as rapidly as possible, and meeting the needs of expanded five-year teaching programs - all this in the context of a difficult budgetary situation resulting from Portugal's general economic situation. While IUTAD seems to be in a consolidation phase, the other institutions are still considering new course offerings, and how to implement graduate level programs in the case of the University of Evora.

It is clear that while the institutions face common problems, there can be no uniform solutions given their differing sizes, present capacities, geographic locations, and fields of emphasis. IUBI, for example, does not have an agricultural program like the UE and IUTAD, and the agricultural problems of the Alentejo region (UE) and Trás-os-Montes region (IUTAD) are vastly different. IUBI, in turn, must deal with a textile industry community as its principal audience. Thus, while each institution wishes to form links with the local communities and the local representatives of other Ministries, and, for example, each wishes to develop a teaching/learning center, it is neither possible nor desirable to take a uniform or standardized approach. The Purdue input must be tailored to the needs of each institution. On the other hand, where interests do overlap, every opportunity is taken to share resources, particularly visiting consultants in the agricultural programs of UE and IUTAD.

Also, as is to be expected in an institutional development program, the relatively short four-year period of this project is seen by many as a constraint. In fact, the rectors unanimously desire to extend training and other inputs well beyond August 1984 - the originally planned end of project. Finally, it is also clear that both dollar and escudo constraints limit what can be accomplished under the project. A compromise was arrived at whereby the USAID agreed to request an extension of the life of the project until June 30, 1985 for all activities except participant training, for which an extension to December 1985 will be requested. This will avoid rushing university participants off for training in the U.S. and creating gaps in their teaching and research programs particularly when academic training for Ms degrees is involved. This normally takes 24 months; so candidates entering U.S. universities in the fall of 1983, as now planned, would only return to Portugal in the fall of 1985.

16. Inputs

Delays by the Ministry of Education in replenishing escudo funds on a timely basis have caused serious operating problems, since most inputs (consultant visits, participant training) are jointly financed by both the dollar and the escudo budgets. The absolute amount of escudos available seems to be adequate to support the inputs planned for funding through the dollar budget, particularly after a recent decree made available an additional 187.5 million escudos from PL480 counterpart to support the program. However, mechanisms to assure timely availability of the funds still requires work. In addition to generally offsetting inflation loses in the regional escudo budgets, the bulk of this new escudo allocation will go to fund new initiatives of each university that were not specifically foreseen at the outset of the project but which now appear priority activities.

When given the choice of financing the program coordination costs of the long-term advisor at IUBI through either dollars or escudos, the Rectors unanimously opted for making funds available under the escudo budget - thereby demonstrating the high value they place on the dollar financed inputs (long and short term advisors and training programs).

The long term advisor position at IUBI remained vacant following the departure of Professor Atkinson in November 1981 until early 1983. Purdue University took an unusually long time to fill this position and there is a difference of opinion as to whether this is primarily because Purdue failed to recruit and nominate a qualified candidate rapidly (which is the position at IUBI and the USAID) or because of changing concepts of the job description and the preferred profile of the advisor (the position of Purdue). At any rate, a qualified advisor in industrial management who seems to have the confidence of the Rector, has been located; and the delay may prove beneficial since Purdue will have a program coordinator in the field at least through 1983 (and perhaps part of 1984), at a time when USAID personnel are being reduced.

Summary tables showing participant training and consultant visits for 1982 are given in Attachment III (UE), Attachment IV (IUBI) and Attachment V (IUTAD). Attachments VI and VII show dollar allocations to activities. Most short-term advisors have been successful, particularly when they have good work programs defined clearly, and well in advance. Several were asked to conduct seminars or short-courses at IUTAD for which Purdue academic credits were received; these courses were particularly well received and are being repeated. However, at IUBI several short-term advisors have not proved successful - either because they lacked language capability or because their activities were not adequately organized,

which in turn was due partially to the absence of a long-term resident advisor. There is clearly a need to develop better scopes of work for these short-term advisors to ensure they make a maximum contribution to the universities and help forge the professional linkages with sister organizations.

Back-stopping by the contractor's campus office continued to be a problem - particularly in giving fast responses to communications sent from Portugal regarding planning for advisors and budgetary matters. Purdue has played only a limited role in guiding its long termers, pressing for better scopes of work and planning for consultant visits and fulfilling the full role AID expects of a contractor. Coordination between Purdue and Clemson University seems to have been weak; Clemson has not been kept informed of all decisions. Clemson has also been assuming greater responsibilities for backstopping the programs of IUBI. This de-facto situation should be regularized by amending, if necessary, the sub-contract between Purdue and Clemson.

The universities generally seem to feel that the long-term advisors have made valuable contributions because of their technical expertise and their ability to coordinate activities and press Purdue's home office to resolve outstanding problems. On several occasions the university rectors expressed a desire to extend long-term advisors; however funding limitations on the dollar contract side will prevent such extensions, with the exception of the new long term advisor at IUBI. If he is agreeable to extend, funding will be shifted from other line items to permit extension of his tour from 12 to possibly 19 months.

USAID also received some criticism during the past year for not keeping in closer touch with the long term advisors and making more frequent visits to the universities. The small USAID staff and heavy workload are largely to blame, yet USAID acknowledges the labor intensive nature of these programs and the benefits of close oversight. More contact would have been desirable to both expedite action and solve problems early.

17. Outputs

Trained Staff - For reasons related to granting tenure to professors, there is continuing pressure to shift funding from short-term to longer-term academic training. Accordingly, as a result of proposals made at the evaluation, long-term (up to the MA level) training will be provided for two more IUBI professors. Some criticism was made of short-term training - unless carefully developed it has a tendency to become touristic. Further consideration should be given to providing one semester of academic training with concentration in a limited field - e.g. animal nutrition - as an alternative to study tours.

An evaluation covering short-term training of twenty-two participants under this program was conducted by USAID/Lisbon. Fourteen (64%) of the participants responded; the results indicated that the study programs in general were satisfactory, but could have been improved.

U.E. felt that consultants staying more than a few weeks exceeded their usefulness. It was agreed that most short-term consultancies have been both helpful and of good quality particularly if the consultant was on a repeat visit and already had a good understanding from previous trips about basic problems in Portugal.

Research - Research is being done in varying degrees by the three institutes. This variance is attributable to the different states of completion of physical facilities; the competence, experience, and interests of staff members; and budgetary constraints. In all three institutions primary emphasis should be and, we believe, is being placed on applied, rather than theoretical research. Each institutions firmly espouses the philosophy of working on regional development constraints and helping to improve local living conditions.

In the case of Évora a good start is being made on economics, as well as natural sciences related to agriculture; while at IUTAD research in fields such as soils, animal nutrition, and adaptation of new crops is already well advanced. Furthermore, IUTAD has been granted responsibility for coordinating all agricultural research done under the new World Bank regional development project. Also, during 1982 IUTAD established its center for Regional Development Studies which is intended to be its consulting arm; this Center and the regional agricultural services will collaborate on joint research and technical programs using IUTAD professors. IUBI has a potentially large role to play in solving the problems of the textile industry which has many small backward factories needing support or diversification into other fields, but needs to upgrade its faculty's capability to deal with such problems.

Extension - The IUTAD shows evidence of having developed a strong extension program which includes teaching and laboratory work with emphasis on soil testing, animal disease prevention, and control, and forestry.

Both UE and IUTAD must forge close links with the Ministry of Agriculture of which the extension service is part, in order to realize their potential. A significant step was taken in March 1982 when, on the occasion of a visit of the Prime Minister to IUTAD, the Ministers of Education and Agriculture signed an accord which pledged sharing of human and institutional resources to solve regional problems. Excellent progress

has been made at IUTAD, where the institute has begin to play a significant role in helping the extension service set up pilot activities. Considerable credit for forging these links in extension with the Ministry of Agriculture goes to Professor Foley, the Purdue long term advisor at IUTAD, whose specialty area was extension methodologies. In the Alentejo it has proved much more difficult for the UE and the Ministry of Agriculture to forge a close working relationship due, in part, to the highly politicized agrarian reform issue in the area.

At IUBI, the extension task is much more direct and involves, on one hand, the institute seeking out individual factories, analyzing their problems, and making recommendations. IUBI hosts groups of managers from local industries at seminars and presentations on textile problems or on management in general. These programs have often been led by visiting Clemson short term advisors. To this extent IUBI will be less dependent on the activities and cooperation of other ministries; but it must develop a highly qualified and versatile staff to deal with industrial problems. At present IUBI's staff is much better prepared to deal with technical, rather than managerial, problems. The management side of the Purdue/Clemson program suffered the setback of IUBI losing its long term advisor and his assistance in setting up short term consultancies in this area. The new long term advisor who arrived in January 1983 is specialized in industrial management and should give a strong boost management training.

Teaching - The institutes have made considerable progress in improving the quality of teaching. Although the quality of staff is still below the levels sought and the institutions are making a concerted effort to have staff trained to the MA and Phd levels as rapidly as possible.

Teacher/student ratios (at 8 or 10 to one professor) seem high by US standards, and the slow rate of growth of student enrollment has been a source of concern to the institutions. However Évora complained that student numbers have grown but not teaching staff; all teachers are under extremely heavy workloads of teaching and research combined with study work on advanced degrees. This complicates greatly sending off faculty under the Purdue program as there are few substitutes and absences caused by participant training create serious shortages in teaching. Finally, both IUBI and UE have the problem of commuting staff who divide their time between the institutions and Lisbon, with resulting negative effects on both teaching and the "spirit" of the institutions.

The strict requirements of the Ministry of Education limit the flexibility in curriculum which is desirable to meet the

varying needs of each institution. Nonetheless, it would be desirable for the contractor to provide some assistance in curriculum development to all three institutions.

Laboratory construction under AID Loan 012 has been delayed at both IUBI and UE, and some U.S. laboratory equipment purchased through that loan still must be installed at IUTAD. As a result, some laboratories are only partially utilized and present use is largely for research and extension programs. One notable exception is IUTAD's soils lab set up under the supervision of Professor Alhrichs, a Purdue long term advisor to IUTAD in soils science. The laboratory has surpassed the older traditional lab of the Ministry of Agriculture in Porto in number of soils analyses done per month and it is the only laboratory in Portugal actually making fertilizer recommendations with the analysis report given to the farmer. During 1983, the laboratory intends to expand into plant analyses as well. The contractor could provide a useful service by assisting the institutions both in installation of equipment and planning utilization of laboratories for teaching purposes.

18. Purpose

The purpose of this evaluation was to review the objectives of the project, which the team found to be still valid, and to determine progress being made to reach the objectives. The team concluded that the changes made in some inputs, such as giving greater emphasis to long-term training, were appropriate and necessary given the heavy demands to upgrade faculty qualifications. Attachment VIII shows short and long term training proposed for 1983 - 1985.

The team also reviewed the project's institutional development to date. Bearing in mind that the project only began operations in late 1980, very substantial institutional progress has been made in implementing the land grant concept; exposing the leadership and staff to the broad development role a university should play, while breaking the ivory tower mold; initiating research and extension activities which meet the needs of the regions; and in improving the quality of teaching.

While the project design foresaw long termers in country for only 24 month periods, all three institutions felt that the long termers skills and influence would be missed. Future evaluations should examine the extent to which these innovations are becoming institutionalized without the continuing presence of American long-term advisors. Only time will tell whether a five year collaboration is long enough to ensure lasting institutional development.

1983 EVALUATION OF PURDUE PROGRAM

Schedule of visits to the Institutions

FEBRUARY 7 (Monday)

07:30 - USAID Office: departure to Évora in official vehicle

10:00 - Arrival to University of Évora

10:15 - Meeting with Rector and Heads of Departments to discuss
and review Program's impact

P.M. - Field trips

Overnight in Évora at Pousada dos Lóios

FEBRUARY 8 (Tuesday)

09:30 - Field trips and closing meeting

Lunch

15:00 - Departure to Covilhã in official car

20:00 - Arrival at Covilhã

Dinner

Overnight in Covilhã at Varanda dos Carqueijais

FEBRUARY 9 (Wednesday)

09:30 - Meeting with Rector and Heads of Departments to discuss
and review Program's impact

Lunch

P.M. - Field trips

Dinner

Overnight in Covilhã at Varanda dos Carqueijais

FEBRUARY 10 (Thursday)

07:30 - Departure to Vila Real in official car

Lunch

14:30 - Meeting with Rector and Heads of Departments to
discuss and review Program's impact

Dinner

Overnight in Vila Real at Albergaria Cabanelas

FEBRUARY 11 (Friday)

09:30 - Field trips

12:30 - Lunch and closing meeting

15:30 - Departure to Porto in official car

19:00 - Arrival to Porto

20:15 - Departure to Lisbon by train

23:30 - Arrival to Lisbon railway station.

EVALUATION OF THE COOPERATION PROGRAM BETWEEN THE UNIVERSITY OF PURDUE AND THE UNIVERSITY INSTITUTE OF TRÁS-OS-MONTES E ALTO DOURO E BEIRA INTERIOR AND THE UNIVERSITY OF ÉVORA

Lisbon - February 16, 17 and 18, 1983

1. Participating Institutions

- . Ministry of Education
- . University Institute of Trás-os-Montes e Alto Douro
- . University Institute of Beira Interior
- . University of Évora
- . University of Purdue
- . University of Clemson
- . United States Agency for International Development

2. Agenda

Wednesday, February 16, 1983

- 15:00 - 1. Discussion of the results of the visits to the Institutions during the week of February 7
2. Evaluation of the impact on the institutional growth
3. Problems identified and possible solutions

Thursday, February 17, 1983

- 09:30 - 1. Presentations, by the Rectors of the Institutions, of the evaluation's summary report
2. Comments on above presentations
3. Comparison of objectives attained with those included in the contract between the University of Purdue and AID
- 15:00 - 1. Discussion of the dollar and escudo budgets of the Purdue Program
2. Reprogramming of activities in 1983 and 1984

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Friday, February 18, 1983

- 09:30 - 1. Summary of the new projects to be funded under
: P.L.480 sales proceeds, by the Rectors of the
: Institutions
2. Allocation of the global amount available to
finance above projects
3. Setting up of a mechanism to monitor project's
implementation
- 15:00 - Conclusions and Recommendations

GENERAL AND SPECIFIC OBJECTIVES OF THE UE-MEU-AID-PURDUE
CONTRACT

University of Évora
February 15, 1983

In summary in the first two and one half years of the contract (August 1980 - January 1983) thirteen young staff members were sent to the States for professional training and there were ten short term consultants in various agricultural fields. Another thirteen staff members were programmed for departure in the next two years and eleven short term advisers had been programmed for this same time period. (See the Quarterly Report of December, 1982 for further details).

Even including these new training and short term adviser schedules there were still funds in the revised budgets of 1981 for further training and/or advisers.

Professors at the University of Évora are primarily concerned with undergraduate teaching and passing the academic hurdles necessary for advancement. Within the first two years a new professor has to do a Masters degree or pass an oral and written exam demonstrating professional competence and teaching ability. Then he will have six years to do the equivalent of a Ph. D.. There is little incentive for service activities in the community or for extension. Research activities have to be oriented by a senior professor in many cases in another institution. Often this advising senior professor is involved in so many administrative activities that he has little time for research. Moreover, the institutional model for agricultural research is the international center model rather than the local grant college model. National funds for agricultural research

come from the Ministry of Agriculture for INIA. There are very limited sources of funding for agricultural research available to the young professors. The net result of the above factors is that progress on the general and specific objectives is necessarily slow as the younger faculty can be persuaded to investigate more relevant problems for agricultural development and as the construction and equipping of various laboratories for applied agricultural research is taking place.

Progress is finally being made on finishing the Soils Laboratory and it should be functioning by the end of 1983. The Animal Nutrition Group has made progress in coordinating their research efforts and hopefully construction funds will be made available in 1983 to improve their operating facilities. With the physical base for both laboratories it will be easier to do more effective teaching and there should be a natural movement towards more service activities for farmers and other regional organizations.

Responding to the questions about specific objectives for U.E.:

1. All of the U.E. extension group has now been (or is presently) in U.S. training programs. They organized and implemented a training program for the Direcção Regional in the spring of 1982.
2. A recent U.E. graduate in Management has now been contacted to help U.E. improve the book-keeping in the U.E. farms. A workshop is presently being set up with U.E. professors and invited participants in the area of Farm Accounts and Farm Management. This workshop meets several times per month.
3. A linear programming study of several farm management problems in the lower Alentejo was completed and presented at the Portuguese Economists' Association. It will shortly

be presented at the Agronomical Institute. LP is a strong, simple, proven tool for improving management decisions in most of the world. The workshop mentioned in 2. above should also help stimulate more effective farm management research.

→ In 1982 Dr. Earl Heady spent a ^{month at U.C.} week evaluating and advising on farm management research. A seminar was held on Agricultural Development Problems of the Alentejo at which several of the young staff in the Economics and the Management Departments presented their research. The main problem area is getting the young professors out to the farm. In both the Farm Management and Farm Accounts areas there is substantial potential for association with other agencies and programs such as the Direcção Regional and the RICA farm accounts program, which included 50 Alentejo farms in 1982 and will be expanding to 100 in 1983.

4. With two visits from Dr. Charles Rhykerd and one from Dr. Edward Carter forage agronomy has been a principal concern. A seminar was held at Évora in November, 1982 on sheep production emphasizing animal nutrition and U.E. personnel participated in a PROCALFER seminar in December, 1982 on forage production. Inter-disciplinary efforts and the animal nutrition lab. will both be critical in future efforts.
5. This area is inter-related with and covered in 4.
6. The Chemistry Department has already begun doing a small number of samples. With the new equipment and facilities, it should be possible to substantially expand their activities.
7. This is a strong Department with excellent leadership. The young staff have been or are being presently sent to the States. A short term adviser is programmed for June-July, 1983.
8. and 9. The new P.L. 480 grant will provide for a major investment in equipment and a smaller effort in construction for a Teaching-Learning Center for the Education Department. Dr. James

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Ahlrichs, one of the Vila Real Purdue representatives, spent a week helping them organize their activities. Previously, they had received some consulting services from French organizations.

10. In spite of the efforts during two months (Jan.-Feb. 1982) of Dr. Dennis Johnson to work with the Ag. Zoning activities in the U.E. and the Regional Planning Commission, this objective is still very poorly defined. It is not clear what needs to be done or who should do it. Probably, the principal concern at the present time should be the most rapid progress possible towards improved computer facilities. U.E. is in the process of making a major investment in this area.

UNIVERSIDADE DE ÉVORA

Acordo de Cooperação Técnica com a Universidade de Purdue

Resumo de Vinda de Peritos Americanos

1980 a 1982

ÁREAS	1980		1981		1982		TOTAL	
	P	M	P	M	P	M	P	M
Ciências Sociais/Extensão Rural								
Gestão de Recursos familiares	1	$1\frac{5}{6}$	-	-	-	-	1	$1\frac{5}{6}$
Gestão de Empresas Agrícolas/Cooperativas								
Impacto da entrada na CEE	-	-	1	$\frac{3}{4}$	-	-	1	$\frac{3}{4}$
Administração de Empresas Agrícolas	-	-	-	-	1	1	1	1
Produção Agrícola								
1. Pastagens e Forragens	-	-	1	$\frac{1}{2}$	2	$2\frac{5}{6}$	3	$3\frac{1}{3}$
2. Sistemas de culturas	-	-	1	$\frac{1}{2}$	-	-	1	$\frac{1}{2}$
Administração Pecuária								
Produção de Ovelhas	-	-	-	-	1	$\frac{1}{3}$	1	$\frac{1}{3}$
Produção de gado bovino de corte	-	-	-	-	1	$\frac{1}{4}$	1	$\frac{1}{4}$
Planeamento e Gestão de Recursos (1 Perito de longa duração)	-	-	1	10	(1)	12	1	22
Ordenamento Rural	-	-	-	-	1	2	1	2
TOTAIS	1	$1\frac{5}{6}$	4	$11\frac{3}{4}$	6	$18\frac{5}{12}$	11	32

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UNIVERSIDADE DE ÉVORA

Acordo de Cooperação Técnica com a Universidade de Purdue

Resumo de Saída de Docentes para Formação nos Estados Unidos da América

1980 a 1982

ÁREAS	1980		1981		1982		TOTAL	
	P	M	P	M	P	M	P	M
Ciências Sociais/Extensão Rural	-	-	1	$2\frac{1}{3}$	1	$3\frac{3}{4}$	2	$6\frac{1}{12}$
Gestão de Empresas Agrícolas/Cooperativas	-	-	1	3	-	-	1	3
Administração de Empresas Agrícolas	-	-	1	4	-	-	1	4
Produção Agrícola								
1. Pastagens e Forragens	-	-	-	-	1	$4\frac{1}{2}$	1	$4\frac{1}{2}$
2. Sistemas de culturas	-	-	-	-	1	3	1	3
Administração Pecuária								
Reprodução de equídeos	-	-	1	2	-	-	1	2
Nutrição Animal	-	-	1	3	1	$1\frac{1}{4}$	2	$4\frac{1}{4}$
Fertilidade de Solos	-	-	-	-	1	$2\frac{1}{2}$	1	$2\frac{1}{2}$
Rega e Drenagem	-	-	-	-	1	3	1	3
Planeamento e Gestão de Recursos	-	-	-	-	1	$5\frac{1}{2}$	1	$5\frac{1}{2}$
TOTAIS	-	-	5	$14\frac{1}{3}$	7	$23\frac{1}{2}$	12	$37\frac{5}{6}$

TABLE NO.1

SUMMARY OF ACTIVITIES AT IUBI

<u>NAME</u>	<u>PERIOD</u>	<u>ACTIVITIES</u>
1. Atkinson, Julian	Oct.80/Dez.81	Long Term Advisor: <ul style="list-style-type: none">. Beginning of program; Administrative activities; Coordination in planning the workshop on extension (common program); planning of short term consultancies and training of Portuguese participants.. Workshop on "Methodologie of Scientific Research"
2. Behery, Hassan	May 81/July 81	Short Term Advisor (Textile): <ul style="list-style-type: none">. Course on non-woven; workshops; planning of short term consultancies on textile; publication of a "document" on textile issued in conjunction with the Rector; visits to industries; workshops.
3. La Roche, Evans	Feb.81/May 81	Short Term Advisor (Textile): <ul style="list-style-type: none">. Workshop on "Economic and Organizational Problems of Production on the Textile Industry"; Pos-graduate course "Application of mathematical methods to textile Industry".
4. Pricer, Robert Atkinson, Julian Frist, Robert	June 81	. Workshop on Communications/Extension
5. Thompson, Robert	May 81	. Workshop on "Results on the entry of the Agricultural Section to the E.E.C."
6. Kendellen, Mike	June 81	. English Course (paid by program)
7. Seannie, Nick	Oct. 81	. English Course (paid by program)
8. Behery, Hassan	Jun.82/Jul.82	Short Term Adviser (Textile): <ul style="list-style-type: none">. Course on Fiber and Textile Physics; workshops; Installation of control tools and training of participants in its utilization; visits to industries; acting as Long Term Advisor (collaboration in sending Portuguese participants to the U.S.A.)

<u>NAME</u>	<u>PERIOD</u>	<u>ACTIVITIES</u>
9. Edie, Danny	May/June 82	.Course on Rheology and Polymers Procedures; Training of trainees in research and laboratory procedures
10. Spencer, Garth	Oct./Dec.82	.Physical Chemistry of Polymers .Research Projects: <ul style="list-style-type: none"> . development of new research areas . meetings with underway project researchers (energy and effluent problems on textile industry) . workshop on effluent problems (industrial faculty and technicians) .Visits: - Factories <ul style="list-style-type: none"> - Textile Institute

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QUADRO Nº 2

RESUMO DO TREINO DOS PARTICIPANTES PORTUGUESES

NOME	ESTADIA	ACTIVIDADES DESENVOLVIDAS
- LUCAS, José	AG/81	LONG TERM TRAINNING, TEXTIL, CLEMSON (MS)
- LISBOA, João	AG/81-JAN/82	LONG TERM TRAINNING, MANAGEMENT, CLEMSON (*)
- PRATA, Mário	JAN/83	LONG TERM TRAINNING, MANAGEMENT, CLEMSON (MS)
- NUNES, Mário	JAN/83	LONG TERM TRAINNING, TEXTIL, CLEMSON
- FIADEIRO, Miguel	AG/82-OUT/82	SHORT TERM TRAINNING, TEXTIL, CLEMSON
- AMORIM, Teresa	AG/82-OUT/82	SHORT TERM TRAINNING, TEXTIL, CLEMSON

(*) - Unfinished

Instituto Universitário da Beira Interior

USED PERSON /MONTHS BY SCIENTIFIC AREAS

	Sept.80 Aug. 81	Sept.81 Sept.82	Sept.82 Aug. 83	Total
Technical Assistance and Training by Areas of Activity TA in Portugal; TV in the United States				
A. General Program Development				
1. Long Term Advisor				
a) Agrobusiness Planning & Regional Development	11	4		15
2. Short Term Advisors				
a) Research Methods and Approaches				
b) Teaching/Learning Resources				
c) Extension Communications Methods	4			4
B. Regional Planning				
1. Short Term Advisor				
a) Preparation and Appraisal of Investment Project				
2. Training				
a) Regional Planning				
C. Industrial Management				
1. Short Term Advisors				
a) Budget Techniques				
2. Training				
a) Quantitative Methods (1 M.S.)	5			5
b) Management				
c) Administration and Decision (1 M.S.)				
d) Industrial Engineering and Management (1 M.S.)				
D. Agrobusiness Management				
1. Long Term Advisor				
a) General Assistance for Long Term Advisor				
2. Short Term Advisor				
a) Management				
3. Training				
a) Activity Planning				

.../...

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	Sept.80 Aug. 81	Sept.81 Aug. 82	Sept.82 Aug. 83	Total
E. Textile Technology and Management				
1. Short Term Advisors				
a) Organization of Textile Products	5			5
b) Instruments for Textile Control				2
c) Non Wovens	2			
2. Training				
a) Organization of Textile Products				
F. Textile Physics				
1. Short Term Advisor				
a) Color Science				
b) Rheology		4		4
c) Fibers and Textile Physics		1,5		1,5
2. Training				
a) Color Science (M.S. and 1 short term)	0,5	8 4	4	12 4,5
b) Rheology (1 M.S. Program)				
c) Fibers and Textile Physics (1 M.S.Program)				
G. Textile Chemistry				
1. Short Term Advisors				
a) Chemical Degredation of Fiber				
b) Effluent Treatment			2	2
c) Physical Chemistry of Polymers				
2. Training				
a) Effluent Treatment				
b) Physical Chemistry of Polymers			2	2
c) Chemical Degredation of Fiber				
H. Other Areas				
1. Short Term Advisor				
a) Energy Conservation in Textile Industry				
b) Management				
2. Training				
a) Energy Conservation				
TOTAL	22,5	26,5	9	59

IUTAD PARTICIPANTS

<u>NAME</u>	<u>Period of Training</u>	<u>Area of Training</u>	<u>Institutions</u>
1. Virgilia P. Andrade	6/30/80-7/17/80	Livestock Extension	Purdue University
2. Orlando Almeida	6/30/80-7/17/80	Livestock Extesion	Purdue University
3. Teles M. Oliveira	1/1/81-12/31/81	Soil Conservation and Tillage	Wisconsin
4. Carlos P. Sequeira	1/1/81-12/31/81	Animal Nutrition	Cornell
5. Francisco Rego	8/24/81-11/20/81	Forestry	Idaho
6. Artur Cristovao	9/5/81-10/24/81	Rural Extension	Purdue University/Wisconsin
7. Jaime Sales Luis	9/20/82-5/83	Forest Management	Oregon
8. Nuno Moreira	7/19/82-8/30/82	Forage Production	Purdue University/Wisconsin/ University of California-Davis
9. Alberto Santos	7/4/82-8/1/82	Micropropagation of Nut Trees	Purdue University/Florida/Georgia/ Missouri/University of California Davis
0. Jorge Colaco	8/1/82-9/26/82	Livestock Reproduction	Purdue University/North Carolina State/Canada Meetings
1. Alberto Cardoso	8/1/82-11/30/82	Cooperatives Organization	Purdue University/Wisconsin
2. Armando Afonso Martins	9/4/82-11/3/82	Soil Mapping	Purdue University
3. Jose Potes	8/1/82-9/26/82	Animal Reproduction	Purdue University/Canada Meetings

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IUBI PARTICIPANTS

<u>NAME</u>	<u>Period of Training</u>	<u>Area of Training</u>	<u>Institutions</u>
1. Passos Margado	7/15/80-7/28/80	Textile Engineering/Regional Planning Project	Purdue University/Clemson
2. Ferando de Jesus	7/15/80-7/28/80	Textile Engineering/Regional Planning Project	Purdue University/Clemson
3. Jose Mendes Lucas	8/16/81-12/83	Color Science	Clemson
4. Joao Lisboa	8/24/81-1/31/82	Business Managemet	Wisconsin
5. Maria Amorim	8/15/82-10/22/82	Textile Production/Polymers	Clemson
6. Jose Fiadeiro	8/15/82-10/22/82	Textile Chemistry/Effluent Treatment	Clemson
7. Alberto Pereira	1/83-8/84	Administration and Decision Making	Clemson
8. Mario Nunes	1/4/83-8/84	Textile Science/Rheology	Clemson

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February 17, 1983

WORKING DOCUMENT FOR DISCUSSION OF THE DOLLAR BUDGET

1. In Nov/Dec 81 the University of Purdue and USAID/Lisbon prepared a dollar budget based on the implementation plans delivered by the three Institutions during the program's November/81 evaluation and approved by the Ministry of Education and USAID/Lisbon (see attached table).

The following Persons Month and costs were included in the above mentioned budget, by Institution:

	I.U.T.A.D.		I.U.B.I.		U.E.		TOTALS	
	PM	\$	PM	\$	PM	\$	PM	\$
Long Termers	48	187,914	29	113,532	24	93,957	101	395,403
Short Termers	52	203,574	54	211,403	33	129,191	139	544,168
Short Term Training	62	207,095	30.5	101,877	98	327,344	190.5	636,316
Long Term Training	21	28,258	112	150,711	72	96,886	205	275,855
Totals		626,841		577,523		647,378		1,851,742

2. Apparently there were no changes in the plans of the University of Evora and I.U.T.A.D.. I.U.B.I. however proposes following changes:

	As of Nov.81		As of Feb.83		Variation	
	PM	\$	PM	\$	PM	\$
Long Termers	29	113,532	40	221,423 ^{3/}	+11	+107,891 ^{3/}
Short Termers	54	211,403	43	168,340	-11	- 43,063
Short Term Training	30.5	101,877	20.5	75,850 ^{1/}	-10	- 26,027
Long Term Training	112	150,711	144	216,000 ^{1/}	+32	+ 65,289
Totals		577,523		681,613		+104,090 ^{4/}

^{1/} Cost coefficient used includes amounts under direct costs in the previous attached budget.

^{2/} The estimated costs for Long Term training are based on a training period of 19PM for 5 trainees, 16PM for 2 trainees and 17PM for one trainee. Experience shows that a minimum of 24PM is needed for an academic training. Using a training period of 24PM for the overall 8 long term trainees the overall cost of long term training will increase by \$72,000 (48PM x \$1,500).

^{3/} Includes fringe benefits in the case of Prof.T.Gunter.

^{4/} Excludes additional indirect costs (roughly \$14,500).

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Purdue Program as per implementation plans sent by Purdue on 12/30/81

Overall Summary by Institution

Budget Items	I.U.T.A.D.		I.U.B.I.		Univ. of Evora		TOTALS		%
	PM	\$	PM	\$	PM	\$	PM	\$	
Long Termers	48	187,914	29	113,532	24	93,957	101	395,403	1
Short Termers	52	203,574	54	211,403	33	129,191	139	544,168	1
Short Term Training	62	207,095	30.5	101,877	98	327,344	190.5	636,316	2
Long Term Training	21	28,258	112	150,711	72	96,886	205	275,855	
Services in the US (includes fringe benefits)		72,252		72,253		72,252		216,757	
Fringe Benefits (only of S. and L. Termers)		98,536		81,788		56,166		236,490	
Overhead		189,125		161,106		118,254		468,485	1
Travel, transportation and other direct costs		46,736		46,736		46,736		140,208	
Joint Program		43,333		43,334		43,333		130,000	
TOTALS		1,076,823		982,740		984,119		3,043,682	10
								Amount available under contract.....	2,897,425
								Deficit	146,257
								Additional cost if long term training (IUBI) totals 144 PM versus 112 projected	54,000
								Estimated actual deficit	200,257

coefficients used:

Long and short term consultants: \$3,914.88/PM
 Short term training : \$3,700.00/PM (number used above totals \$3,340.24; remaining difference to \$3,700 is included in direct costs)
 Long term training : \$1,500.00/PM (number used above totals \$1,345.62; remaining difference to \$1,500 is included in direct costs)
 Overhead: approximately 42.10% of wages and salaries
 Fringe benefits: approximately 25.17% of wages and salaries
 Services in the US.

Collon (Purdue) (22.2 PM at ≈ 3,045/PM)
 Adm. Ass (Purdue) (49 PM at ≈ 1,301/PM)

Behery (Clemson) (8 PM at ≈ 4,005/PM)
 Adm. Ass (Clemson) (12 PM at ≈ 817/PM)

Travel and transportation costs: \$67,812

Direct costs include educational allowances and on-campus (at Purdue) operations

Joint Program includes 15PM of consultants and 11PM of training

SHORT AND LONG TERM TRAINING PLANNED (FEB.83)

Calendar Year

Institution	1983			1984			1985			1986		
	Jan	Jun	Dec									
<u>I.U.T.A.D.</u>												
Prof.F.Real (Program Development)												
C.Abrau (Wheat Diseases)												
A.Pires (Soils) LT												
F.Rajo (Forestry)												
J.Mendes (Soils)												
Armando Ferreira (Forages)												
Arlete Ferreira (Wine)												
A.Melo (Soils)												
F.Dinis (Farm management)												
E.Rosa (Horticulture)												
F.Martins (Crop Sciences)												
J.L.Baltazar (Soils)												
A.Silva (Animal Nutrition)												
N.Carpes (Land Tenure)												
A.Machado (Rural Construction)												
<u>I.U.B.I.</u>												
M.F.Nunes (Theology) LT												
M.P.Barros (Mngt) LT												
M.J.Garalbes (Textiles) LT												
A.Ferreira (Mngt) LT												
J.Lisboa (Mngt) LT												
Short Term (Mngt)												
Short Term (Mngt)												
A.Baia (Mngt) LT												
Long Term (Paper Making) LT												
Short Term (Textiles)												
Short Term (Textiles)												
Short Term (Textiles)												
<u>U.E.</u>												
E.Figueira (Extension) LT												
A.Serrão (Farm Mngt) LT												
C.Marques (Farm Mngt)												
J.Ribeiro (Farm Mngt)												
A.Salgueiro (Resource Economics)												
P.Silveira (Forages)												
J.Nunes (Livestock Production)												
O.Bento (Livestock Nutrition)												
J.Avô (Livestock Management)												
C.Roquete (Livestock-beef)												
G.Ferreira (Soil Fertility)												
F.Garcia (Soil Fertility)												
J.Lúcio (Irrigation)												
C.Carvalho (Ag.mechanization)												

1/ Training period to be scheduled

2/ I.U.B.I.'s Long-Termers include only 19PM of training. However 24PM might be needed; dotted line shows 24PM

3/ Only 17PM. Participant was already in the U.S.

Best Available Document

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED