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STRATEGIC PLANNING CONSULTATION
WITH TECSUP
THE SECOND AI TECHNICAL ASSISTANCE VISIT
September 29-October 19, 1985

Submitted to

TECSUP

U.S. Agency for International Development, Peru
USAID -Bureau for Private Enterprise

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THE SECOND AGUIRRE INTERNATIONAL TECHNICAL ASSISTANCE VISIT

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ACKNOWLEDGMENTS

We wish to express our appreciation for the extensive cooperation and support we received during our visit and in producing this report. The administration and staff of TECSUP, as usual, were outstanding in their gracious hospitality and ready support of our work. We especially want to thank Board Chairman Luis Hochschild, General Director Rodolfo Beeck and Planning Coordinator Fernando Guzman, who generously provide of their time and cooperation.

Our thanks to AID/Lima Mission Director John Sanbrallo, Chief Norma Parker, and Project Officer Gerardo Arabe for their time and dedicated interest. Project Officer Andrea Mohn Baumann, AID/Washington, provided her usual very helpful feedback and guidance.

EXECUTIVE SUMMARY STRATEGIC PLANNING CONSULTATION WITH TECSUP

PURPOSE: This report presents the results of Aguirre International's (AI) second site visit to Peru to assist Asociacion Promotora de Institutos Tecnológicos Superiores (TECSUP) to accomplish its objectives through the process of strategic planning.

MAJOR FINDINGS AND RECOMMENDATIONS: To give AID a capsuled understanding of the progress being made by TECSUP; this executive summary highlights those points considered most relevant to immediate decision making by U.S. A.I.D. These were the points of gravest concern as expressed both in writing and orally by AID officials.

Short Course Implementation: Delaware Technical and Community College (DTCC) had delivered ten courses by October 11, 1985. Eight were being translated by engineers recruited both to translate and teach the courses. Four courses are scheduled to be offered by December 31, 1985. We recommend that TECSUP adhere to the schedule planned for this implementation. In addition, we recommend that TECSUP meticulously collect course evaluation or feedback from the participants of the courses. We also strongly recommend that TECSUP take advantage of DTCC staff to assist in presenting the courses as contracted; and that DTCC be allowed to extend this staff support offer to 1986, as appropriate by course.

Administrative and Financial Systems: The strategic planning review of internal operations included analyses of ten procedures recommended by Deloitte, Haskins, and Sells (DHS). Admissions and enrollment procedures for new and returning students being implemented now correspond closely with the DHS recommendations.

We observed less correspondence between other DHS-recommended procedures related to control of funds, collection of tuition and other fees, purchasing, plus warehouse reception and issuance of materials and supplies. Some of these procedures may be adequate for TECSUP at its present level of development.

We recommend that DHS or a similar firm conduct a follow-up audit to assist TECSUP in monitoring and refining these procedures. Toward the end of implementing effective organizational systems, Board Chairman Hochschild reported that his company is donating the services of a systems specialist to work with TECSUP staff for one month this year.

We recommend that all procedures be written, flowcharts developed and updated periodically. Judgments of adequacy of these procedures were not made, since formal, written guidelines were not available. TECSUP has contracted a business consultant to develop and document the TECSUP procedures manual.

Through great effort and cost, TECSUP has manually implemented a record-keeping system by cost centers; data and reports are available through July 1985. Automation of this record-keeping is proceeding with the recent delivery and installation of the donated Basic IV minicomputer. An accounting software program is being installed to process the cost centers data as recommended by DHS. This program will provide detailed financial information by cost center; it currently lacks the capability to produce summary reports necessary for top management monitoring and decision making. General Director Beeck reported that programming for this is part of the contract with the vendor assisting with the

Installation of the Basic IV. An Inventory control program has also been purchased. As TECSUP grows and acquires more equipment, small tools, and supplies, installation of this program becomes even more crucial. We recommend that a high priority be given to facilitate this effort.

We also repeat a recommendation made previously that TECSUP systematically examine its information processing needs and resources by department. Decision making in this area becomes more systematic and cost-effective if the information processing needs of the major departments of the organization are identified and prioritized. TECSUP Planning Coordinator Guzman has been assigned to conduct this study prior to January 1986.

Market study: AID recommended an extensive, serious study of Peruvian private-sector market demand. During this visit, TECSUP reported an urgent need for such information prior to the offering of the short courses. The General Director indicated that such a study was seen to require more time and funds than immediately available. Instead, TECSUP has contracted a "study" to be conducted within the next two weeks, targeting those 40-50 nearby companies most likely to desire the types of short courses scheduled for eventual delivery. The central purpose of this activity is the marketing of the short courses. This current study might be seen as a precursor to the extensive market study called for by AID. Such an extensive study needs to be conducted.

We recommend that AID make that extensive market study a required first activity of any new grant that may be provided. The enrollment in these short courses will serve as a market test which will produce valid market demand data in the absence of the large study.

Private Sector Involvement: Strong, continuous private sector involvement with TECSUP is crucial for TECSUP's effectiveness and relevance. Such involvement could take many forms, however, the involvement should include representatives of those industries which TECSUP seeks to serve; it should be formally planned and the role and responsibilities of those representatives should be clearly described. Such associates can provide guidance and reality testing on a systematic basis. Board of Directors Chairman Hochschild and Director Beeck agreed to formalize the Board and the Technical Advisory Committee ensuring appropriate representation at regular meetings, with agendas and responsibilities detailed.

Other Strategic Planning Components: Information vital to the analysis of current and anticipated markets, income opportunities, and projected financial positions is unavailable at this time. These analyses are postponed until the third visit, when more data should be available. The attached report lists tasks and information necessary for TECSUP to proceed with effective planning and management. Their completion prior to the next A1 visit will allow for completion of as much of the strategic plan as possible.

Subsequent to this visit, we prepared a Memorandum of Agreement summarizing the major tasks and dates agreed to by TECSUP, AID/Lima, AID/W, DTCC, and ourselves. This document is presented to facilitate common understanding of the critical responsibilities for which each party is responsible. These agreements were formulated through the participation of each group.

AGUIRRE INTERNATIONAL

To: Andrea Mohn Baumann, Project Officer

Date: October 28, 1985

From: Edward Aguirre, President

Subject: MEMORANDUM OF AGREEMENT RE TECSUP

Below are the agreements reached during our recent trip to Lima as we understood them from our discussions with TECSUP General Director Rodolfo Beeck and Board Chairperson Luis Hochschild; AID Mission Director John Sanbrallo and Project Officer Gerardo Arabe in Lima, as well as with DTCC Assistant to the President Anthony Digenakis and yourself in Washington, D.C. last week.

The purpose of this memo is to facilitate clear communication and follow-through. Thus each party needs to review and clarify or confirm agreement with the tasks specified as soon as possible. We recommend that Mr. Arabe review this memo with TECSUP and confirm agreement. We would appreciate feedback from all parties on this as soon as convenient.

AID/PRE

- o Extend termination date of TECSUP grant to March 31, 1986. No change in scope or budget.
- o Extend termination date of Aguirre International contract to March 30, 1986. No change in scope or budget.

AID/Lima

- o Extend termination date of DTCC contract to March 31, 1986. No change in scope or budget.
- o Obtain concurrence from TECSUP on extension of TECSUP grant and Aguirre Int. and DTCC contracts.
- o Contract DH&S to conduct follow-up audit during first two weeks in January 1986.

TECSUP

- o Request an extension of TECSUP grant and DTCC contract to March 31, 1986.
- o Concur with extension of Aguirre Int. contract to March 31, 1986.
- o Complete planning for implementation of short courses; fill in short course planning form (Appendix A Aguirre Int. report October 1985) by November 26 1985.
- o Promote and implement at least nine short courses by March 31, 1986: complete the offering of two to four short courses by December 31, 1985; and at least five to seven additional courses by March 31, 1986.
- o Complete tasks as described on pages 25-26 in the October 1985 Aguirre Int. report.
- o Coordinate DTCC technical assistance visits.
- o Provide feedback to DTCC on course revisions, as necessary.
- o Submit final project status report to PRE and AID/Lima by March 31, 1986.
- o Planning Coordinator Fernando Guzman to conduct information processing needs study for TECSUP, results to be used in planning for use of computer equipment.
- o Ensure that DATELSA, the vendor providing service with the Basic IV minicomputer, extends the capability of the financial systems to produce summary

- reports needed for upper management decision-making.
- o Formalize its technical advisory committee, with 7-9 members convening periodically with agendas, etc.
 - o Hochschild Group to donate services of a systems specialist for one month to assist TECSUP staff in reviewing and refining administrative and financial systems.

DTCC

- o By December 31, 1985
 - a. Complete delivery of courses, and equipment per agreed schedule.
 - b. Send personnel to TECSUP to provide technical assistance for short courses to be offered during 1985.
- o January 1 to March 31
 - o Revise course materials, as necessary.
 - o Revise teaching methodology, as necessary.
 - o Send personnel to TECSUP to provide technical assistance for the remaining short courses.
- o Provide DTCC technical assistance in Lima:
 - o Conduct nine workshops at TECSUP.
 - o Coordinate visits to conduct workshops as appropriate with the dates courses are taught.
 - o Provide personnel who are Spanish speaking or are judged as acceptable by both DTCC and TECSUP.
 - o Provide expertise on subject matter being taught as well as the proposed teaching methodology.

AGUIRRE INTERNATIONAL

- o Brief AID/PRE & DTCC on Aguirre Int. visit on October 22, 1985.
- o Convey agreement that DTCC send technical assistance for short-course implementation (Spanish speaking).
- o Continue to develop formats for the final report.
- o Return to TECSUP January 13 to January 25, 1986 for final visit.
- o Provide consultation through extended date of March 31, 1986.
- o Submit final report by March 31, 1986.

STRATEGIC PLANNING CONSULTATION WITH TECSUP
REPORT OF THE SECOND TECHNICAL ASSISTANCE VISIT

BACKGROUND

This report describes the work conducted during the second visit of Drs. Edward Aguirre and Angela Garcia, of Aguirre International (AI), with TECSUP, Asociación Promotora de Institutos Tecnológicos Superiores, the private, non-profit educational post-secondary technical institute in Lima, Peru. Two prior reports presented the results of two other visits to Peru, one visit to conduct an organizational analysis and develop a strategic planning process for the organization (see Institutional Assessment and Strategic Planning Process by Edward Aguirre, December 1984) and the other visit to begin providing technical assistance in implementing that strategic planning process (see Report of the First Technical Assistance Visit to TECSUP by Edward Aguirre and Angela Garcia, June 1985). Of those previously reported results, only those relevant to the understanding of the current institutional status and work conducted will be addressed again in this report.

The purpose of this second visit was to assist administrators of TECSUP to accomplish its goals and commitments through the process of strategic planning. The technical assistance focused on the tasks specified in the AI Scope of Work (also in the June 1985 report) emphasizing the priorities identified during the initial meetings of this visit with TECSUP and AID administrators in order to respond to the most pressing technical assistance needs and priorities of TECSUP and the AID Mission.

These were

1. Facilitate implementation of short courses through analysis of the DTCC courses delivered to date and assist in the detailed planning of the implementation for all short courses.
2. Review internal organizational structures, including review and assistance on the implementation of administrative and financial systems as part of the strategic planning analyses.
3. Review market demand study to date as part of analysis of the external environment which is a part of the TECSUP domain.
4. Review private sector involvement to date.
5. Review other strategic planning tasks accomplished to date, determine top priority tasks for second visit in light of current TECSUP/AID needs and carry out by 10/19/85.
6. Draft end-of-visit report detailing above accomplishments.
7. Present exit oral reports to TECSUP and AID.

These seven tasks were reviewed and accepted by both TECSUP General Director Rodolfo Beeck and AID Project Officer Gerardo Arabe.

METHODOLOGY/PROCESS

The process followed during this technical assistance visit was similar to that of previous visits, beginning in Washington, D.C., meeting with AID Project Officer Andrea Mohn and Delaware Technical and Community College (DTCC) administrator Anthony Digenakis prior to the visit to Lima. In Lima, Aguirre and Garcia met with TECSUP General Director Beeck and Credit Fund Director/Planning Coordinator Fernando Guzman followed by a meeting with AID Mission Director John Sanbrallo and Project Officer Arabe.

The remainder of the three weeks of the visit were spent on campus at TECSUP, providing technical assistance through meetings with individual administrators and staff members, examining documents, cross-validating and analyzing data, and preparing this report.

FINDINGS AND ASSISTANCE PROVIDED

AID Priorities

Initial contacts with TECSUP and AID administrators revealed several significant developments:

1. AID mission director John Sanbrallo sent a letter to Luis Hochschild Plateau, TECSUP Board of Directors Chairman, reaffirming in writing AID understandings and requirements related to its continued financial support of TECSUP. These included directives to implement the provisions of the PRE grant, namely, to
 - a. Implement short courses.

- b. Increase significant participation of the private industrial sector in the planning, administration, and financing of TECSUP activities;
 - c. Implement administrative, accounting, and financial systems;
 - d. Conduct an extensive, serious market demand study of Peruvian private sector for 1986-1990 period;
 - e. Develop 1986-1990 Strategic Plan;
 - f. Evaluate 1986-90 needs of TECSUP;
 - g. Complete plan for expected TECSUP Income Sources;
 - h. Submit a proposal for a new project to AID.
2. At their first meeting with us, AID Program officer Gerardo Arabe and Mission Director John Sanbrallo underscored the need for TECSUP to complete the requirement of the first grant before December 31, 1985, namely, the implementation of the short courses and of the financial and administrative procedures recommended by DHS, the completion the TECSUP strategic plan, and the investigation of private-sector market demand for technical training in Peru.

They suggested that Aguirre International could most benefit TECSUP during this second visit by providing technical assistance in these areas.

New Fiscal Year Implications for Funding

The new fiscal year beginning October 1, 1985, heralded the possibility of a new application for funds from TECSUP. When queried about this and the TECSUP request for assistance in

preparing a new application, AID officials strongly emphasized the need for TECSUP to complete the requirements of the present grant prior to submission of any new grant application.

DTCC Courses

DTCC was contracted by TECSUP to serve as the "sister" technological institution in the United States. In this role, DTCC contracted to provide 20 courses in English which TECSUP would translate and adapt for use in training Peruvian technicians. These were to include a. textbooks to be used as a primary reference; b. suggested references related to the course content; c. detailed topical outlines including necessary training activities and labs; d. lists of all equipment and materials needed for instruction; e. suggested teaching methodology for the Peruvian instructional staff; f. examples of tests and evaluation procedures; g. all required diagrams, blueprints, flow-sheets, and drawings needed to teach the courses; and h. required educational level or technical knowledge needed to enter each course.

The topics of the 20 courses were as follows.

SHORT COURSES

- 1 Math for Technicians
- 2 Blue Print Reading-Piping
- 3 Diagram Reading
- 4 Mechanical Measuring Devices
- 5 Materials Testing
- 6 Basic Technical English
- 7 Advanced Technical English
- 8 Basic Electronics
- 9 Advanced Electronics
- 10 Machine Components
- 11 Electronic Troubleshooting
- 12 Surveying
- 13 Digital Electronics
- 14 Microprocessor Fundamentals and Applications
- 15 Non-destructive Testing
- 16 Fundamental of the Manufacturing Process

- 17 Plant Maintenance Scheduling
- 18 Chemical Standards Solutions & Measurements
- 19 Gas Chromatography Absorption...
- 20 Modern Materials

As of October 14, 1985, DTCC had delivered ten courses:

- Course 1 Math for Technicians
- Course 2 Blue Print Reading-Piping
- Course 4 Mechanical Measuring Devices
- Course 6 Basic Technical English
- Course 7 Advanced Technical English
- Course 8 Basic Electronics
- Course 9 Advanced Electronics
- Course 13 Digital Electronics
- Course 14 Microprocessor Fundamentals and Applications
- Course 15 Non-destructive Testing

These courses were reviewed by the General Director and Department of Instruction staff. As they conducted these reviews, they discovered a major difference between what they had received and what they had expected. This difference stemmed from the interpretation of what constitutes a completed course: most DTCC courses referred the instructor to sections of commercially published texts with directions to integrate them into the lesson plan, rather than providing an instructor's manual that included everything required of the instructor.

This use of sections from published texts resulted in a related problem: the translation of some of the English sections yielded three times as many pages of translated material than the original, leading in at least one case to over 300 pages of translated text. This not only increased the adaptation costs to

TECSUP beyond that originally anticipated but also required more time for the translations to be completed.

AI Review of Courses

AID/Lima requested an assessment of the courses by Aguirre International. The materials delivered for each of the ten courses were reviewed. In our opinion, the materials prepared and delivered by DTCC have met the requirements as described in the contract between DTCC and TECSUP. The pedagogical approach used by DTCC throughout these ten courses coincides with approaches commonly used in teaching industrial subjects in the United States.

However, discussions with both DTCC and TECSUP administrators revealed serious communication problems, primarily concerning on the specific form which the final product for each course was (and is) to take, as mentioned above. TECSUP administrators expected all the materials for the course to be contained within the manuals prepared for the instructors and students; they did not expect to have to switch back and forth to commercially prepared textbooks for section of the course to be presented. This use of external materials, however, is a common feature in the United States.

We recommend that great care be taken in the future, clearly describing and giving examples of the methodology and products to be produced. Given the great ease with which communications go awry, we recommend that agreements for any future courses state specific instructional objectives and expected format(s) prior to the development and delivery of a course.

Part of the DTCC assistance also includes the offer to send DTCC staff to assist in presenting the short courses as contracted. Most of these short courses will be offered in early 1986. We therefore recommend that AID allow DTCC to extend this staff support offer to 1986, as appropriate by course. Concomitantly, we also strongly recommend that TECSUP take advantage of DTCC staff to assist the short course trainers in using the pedagogy involved, observe and provide feedback as needed and recommendations for modification of the training programs. If at all possible, the DTCC consultants should be Spanish speaking.

TECSUP STATUS AND STRATEGIC PLAN ACTIVITIES

Short Courses Implementation

As reported above, materials for ten of the 20 courses to be developed by DTCC arrived at TECSUP by October 14, 1985. Second copies of the materials to be translated were to be shipped from the United States on October 4 and 7. (See Appendix A for course titles in order of anticipated delivery dates.)

TECSUP recruited as translators of the courses developed by DTCC engineers who are recognized as capable and up-to-date in their fields, experienced in teaching or training, competent in English, and interested in teaching the courses they translated. They began those translations on September 17. To lessen delays, the contracts with the translators included deadlines with penalties for failure to complete the works as scheduled.

We observed meetings between TECSUP administrators, the short course coordinator and those translators and noted the

sensitivity of the translator/engineers to the complexities of translating and adapting these technical courses for Peruvian technicians. They raised numerous issues critical to adapting the instruction, such as the measurements (English vs. metric), the prerequisites of the courses, the level of familiarity or difficulty for a typical Peruvian technician, and the type of skills and knowledge likely to be most useful in the Peruvian environment.

As part of the technical assistance in strategic planning, we developed a planning and monitoring form for these short courses and adapted it to a form being developed by the General Director. Appendix A presents the resulting plan form for development and implementation of these courses.

Given the high priority given the implementation of these short courses, the General Director is currently managing their implementation. He has agreed to complete the planning form presented in Appendix A, inserting estimated dates for completion of the major stages in the implementation of each of the 20 courses by our return visit in January 1986.

As of October 11, 1985, eight courses were being translated. Seven of those translations are scheduled for completion by the end of October. Four of those courses are scheduled to be offered by December 31, 1985: Math for Technicians, Blue Print Reading/Piping, Basic Technical English, and Basic Electronics.

Ten other courses are scheduled for delivery by DTCC in 1985 and for translation by TECSUP in the early part of 1986.

According to the General Director, the marketing of these courses will be conducted through individual interviews of

managers at 30-40 companies in Lima. This is discussed further below in the section on the market demand study and in Appendix B in a memo from the General Director to the TECSUP Board of Directors.

Based on our observations and interviews, we conclude that TECSUP is vigorously pursuing the implementation of the short courses at this time. Some of the planning is incomplete, but the effort and dedication is high.

We recommend that TECSUP fully complete the short course planning form presented in Appendix A for more efficient planning and effective marketing and use of resources. We further recommend that DTCC be allowed to extend the its offer to send DTCC technical staff to assist TECSUP in implementing the short courses.

Organizational Systems: Educational

An effective educational institution requires numerous standardized procedures and systems. Clearly the systems most crucial to the mission of TECSUP, as an educational institution, are those involved with education or training. The curriculum of the three-year program and related procedures were addressed in the June 1985 technical assistance report.

The Director of the Department of Instruction was interviewed during the last visit as part of the process of detailing that Department's major objectives, tasks and requirements, particularly as related to the three-year program. Appendix C presents the draft of that plan. Similar documents need to be completed by the other TECSUP departments and the General

Director's office as part of the operational plan for TECSUP.

The second major educational thrust of TECSUP is the short course program mentioned above. The implementation and control plan for those courses was prepared during this visit and is summarized, as mentioned above, in Appendix A.

Organizational Systems: Administrative and Financial

The strategic planning process requires analysis of internal operations and systems as they relate to the effectiveness and success of the organization. The examination of TECSUP administrative and financial systems included a review of the procedures and systems addressed by DHS.

The recommendations submitted by DHS were integrated into the strategic planning analyses. Ten systems were targeted in these analyses:

1. Applicant admission procedures,
2. Enrollment of admitted students,
3. Enrollment of returning students,
4. Payment to suppliers,
5. Payment to contract teachers,
6. Petty cash disbursements,
7. Purchasing procedure,
8. Reception of materials in warehouse,
9. Issue of warehouse materials and supplies.
10. Collection of tuition and other fees

During the first technical assistance visit TECSUP administrators reported accepting the DHS procedures in principal. They reported that some of those recommendations were appropriate for TECSUP when it grew to a larger size than at present. However, at this stage, some of the procedures are seen as too complex or cumbersome.

On meticulously examining actual TECSUP practices viz a viz

the above ten procedures, we found close correspondence between actual practices and the first three recommended procedures: applicant admission procedures, enrollment of admitted students, and enrollment of returning students. The major difference between current TECSUP practices and the DHS-recommendations centers on the role of a proposed Promotion Office. That office has not been established, nor do we believe it is necessary given the current size of the organization. Those tasks are currently being handled by the Department of Instruction.

These procedures and attendant record keeping are now being handled manually but are scheduled to be processed electronically with the installation of the Basic Four minicomputer now in process.

Analyses of TECSUP Financial Data

The strategic planning analysis of internal organizational factors focuses on all those factors which involve income and expenses for the institution. At the top decision making levels of an organization, administrators need summary data on all organizational costs related to the organization's mission and its outputs or products and services. To determine which strategies are most desirable for an organization, the managers need to review these cost figures carefully. Toward that end, we developed several financial analyses spreadsheets or models by which to understand TECSUP's financial circumstances over the next five years. These spreadsheets were prepared using the software program Lotus 1-2-3 on an IBM PC in order that TECSUP can use the files when they receive their two IBM-compatible

Multitech microcomputers, which are in custom awaiting clearance.

More importantly, these models allow TECSUP managers to analyze alternative models and examine the expected impact of different organizational strategies and alternative courses of action; for example, a. actively mounting an extensive and expensive marketing effort for the short courses and b. repeatedly offering all popular courses vs. c. cutting operating costs and d. offering all courses developed only once regardless of industrial response.

Table 1 presents the spreadsheet developed for the more detailed cost centers analyses. This model summarizes major expense categories down to the individual short course and can be used to understand patterns across the organization and determine cost to output ratios. Top managers can monitor expenditures and identify areas for further cost-effectiveness analyses and change.

Table 2 presents the spreadsheet for financial analysis of the short courses (cursos vespertinos). We developed this form to enable TECSUP managers to monitor at a glance the income and expenses by type for each of the short courses. This spreadsheet will thus provide summary financial information on revenue from individual courses and the costs incurred by the organization in offering them.

The information presented in Tables 1 and 2 can then be further summarized into Table 3, an organizational summary comparing major categories of income and expenses within a year and across each year predicted for the TECSUP Strategic Plan. The completion of this table will facilitate consideration of the

TABLE I

COST CENTER ANALYSIS FOR TECSUP

COST CENTERS	1985	1986	1987	1988	1989	1990
91 GEN. DIRECTOR						
91.01 GEN. DIR. OFFICE						
91.02 ECF OFFICE						
91.03 DATA PROCESSING						
91.04 SOCIAL WORKER						
SUB-TOTAL						50
92 ADMIN. OFFICE						
92.01 DIRECTORS OFFICE						
92.02 ACCT. & CASHIER						
92.03 WAREHOUSE & PURCH.						
92.04 MAINT. & GEN. SVS.						
92.05 SECURITY						
92.06 PRINTING						
92.07 CAFETERIA						
SUB-TOTAL						50
93 GENERAL EXPENSES						
SUB-TOTAL						
94 PROMOTION & PUBLIC REL.						
SUB-TOTAL						
95 FINANCIAL EXPENSES						
95.01 INTEREST & LOAN EXP.						
95.02 INTEREST & OVERDRAFT						
95.03 INTEREST & EXPENSES BLDG. CONST.						
95.04 EXCHANGE LOSSES						
95.05 OTHER FINANCE CHGS.						
SUB-TOTAL						50
96 INSTRUCTIONAL OFFICE						
96.01 DIRECTORS OFFICE						
96.02 INSTRUCTION						
96.03 TECH. GERMAN ASSIST.						
96.04 LIBRARY						
96.05 CLASSROOMS						
96.06 DRAWING ROOM						
96.07 COMPUTER ROOM						
96.08 BASIC ELECT. LAB.						
96.09 ELECTRONIC LAB.						
96.10 ELECTRICITY SHOP						

96.11 BASIC MECHANIC SHOP
96.12 ADV. MECHANIC SHOP
96.13 WELDING SHOP
96.14 SPORTS

SUB-TOTAL

97 COURSE DEVELOPMENT

SUB-TOTAL

98 COURSE COSTS

98.01 TEACHING STAFF
98.02 TEACHING MATERIALS
98.03 INDIRECT COST

SUB-TOTAL

COST SERVICES-WORK ORDERS

99.01 DIRECT LABOR
99.02 MATERIALS
99.03 INDIRECT COST

SUB-TOTAL

TABLE 2
 FINANCIAL ANALYSIS FOR TECSUP EVENING PROGRAM -- CURSOS VESPERTINOS
 1985

CURSOS VESPERTINOS SHORT COURSES	ENROLL- MENT	FEE PER STUDENT	TOTAL REVENUE	EXPENSES			TOTAL EXPENSES	BALANCE
				TEACHING STAFF	TEACHING MATERIALS	INDIRECT COSTS		
1. MATH FOR TECHNICIANS								
2. BLUEPRINT READING								
3. DIAGRAM READING								
4. MECHANICAL MEASURING								
5. MATERIALS TESTING								
6. BASIC TECH. ENGLISH								
7. ADVANCED TECH. ENGLISH								
8. BASIC ELECTRONICS								
9. ADVANCED ELECTRONICS								
10. MACHINE COMPONENTS								
11. ELECTRONIC TROUBLESHOOTING								
12. SURVEYING								
13. DIGITAL ELECTRONICS								
14. MICROPROCESSOR FUND.								
15. NON-DESTRUCTIVE TESTING								
16. FUND. MANUFACTURING PROC.								
17. PLANT MAINTENANCE SCHED.								
18. CHEMICAL STANDARDS SOLUTIONS & MEASUREMENTS								
19. GAS CHROMATOGRAPHY ABSORP ...								
20. MODERN MATERIALS								
***** T O T A L S *****								

Table 3
 FINANCIAL ANALYSIS FOR TECSUP
 ORGANIZATIONAL SUMMARY
 JULY, 1985

	1984	1985	1986	1987	1988	1989	1990
*****INCOME*****							
STUDENT FEES							
3 YR PROGRAM							
SHORT COURSES							
DONATIONS							
PERUVIAN							
US AID							
GERMANY							
?							
OTHER							
INTEREST ON RESERVES							
TOTAL INCOME							
*****EXPENSES*****							
THREE-YR PROGRAM							
GEN. DIRECTOR							
ADMIN. OFFICE							
GENERAL EXPENSES							
PROMOTION & PUBLIC REL.							
FINANCIAL EXPENSES							
INSTRUCTIONAL OFFICE							
COURSE DEVELOPMENT							
COURSE COSTS							
COST SERVICES-WORK ORDERS							
TOTAL 3-YR COSTS							
SHORT COURSE PROGRAM							
GEN. DIRECTOR							
ADMIN. OFFICE							
GENERAL EXPENSES							
PROMOTION & PUBLIC REL.							
FINANCIAL EXPENSES							
INSTRUCTIONAL OFFICE							
COURSE DEVELOPMENT							
COURSE COSTS							
COST SERVICES-WORK ORDERS							
TOTAL SHORT COURSE COSTS							
TOTAL EXPENSES							
NET INCOME							

The completion of this table will facilitate consideration of the expected changes in internal operating costs and other expenses versus expected income from the various sources. It will focus attention on the major factors affecting the viability and effectiveness of TECSUP.

Some of the financial data has been provided for these spreadsheets on this trip. In the next visit, we plan to assist TECSUP planners in using the models to analyze and identify alternatives for 1986-1990.

Management Information System

As part of the AI scope of work, we provided TECSUP with technical assistance for on the uses and compatibility of the soon-to-be-delivered Multitech microcomputers. DTCC proposed to design one of its courses (computer-assisted plant maintenance) using Lotus 1-2-3 or dBase II or III. To ensure actual compatibility of the software we tested the 2.11 version of PC DOS, Lotus, and Wordstar on the Multitech and determined that those micros could indeed run the programs.

In addition, the General Director requested that we test the compatibility of Peruvian-made IBM-compatible microcomputer which was being offered to TECSUP at significant discount. Those micros also tested compatible with IBM, running the above programs.

With respect to our technical assistance in automated management information systems, we need to repeat a recommendation made in the previous visit that TECSUP systematically examine its information processing needs and resources by department. Decision-making in this area becomes more systematic and cost-effective.

tive if the information processing needs of the major departments of the organization are identified and prioritized.

Toward the end of conducting such a study, we drafted an example of a brief survey form (see Appendix D) with which to conduct a modest study of organizational data processing or information systems needs. This form could be used by TECSUP Planning Coordinator Guzman to interview all the major department heads and any of their staff whom they assigned as requiring electronic data processing services. This information could not only be useful for planning and allocating data processing resources in the short run but would also provide information valuable to the strategic planning process.

As a result of this AI visit, Planning Coordinator Guzman was assigned to conduct this study prior to the third AI visit.

Market Demand Study

The AID letter stressed the need for a serious and extensive study of needs and demands for technical training among private-sector industries throughout Peru. Such a study should determine current and future demand for the type of training offered by TECSUP in Lima and other areas of the country.

The TECSUP General Director reported agreement with the need for a market demand study, specifically he and the Board of Directors expressed a serious need for such information particularly focusing on those companies and industries likely to require the types of training available through the short courses.

Private Sector involvement

Strong continuous private sector involvement in TECSUP fun-

ctioning is crucial for TECSUP's effectiveness and relevance. In his letter to the Chairman of the Board of Directors, AID/Lima Mission Director Sanbrallo described several types of private sector involvement or participation in TECSUP for consideration by the Board of Directors. The Board and General Director have formal and informal ties with Peruvian industry. In addition, an advisory council does exist, according to Board of Directors Chairman Hochschild in his aforementioned letter responding to Mr. Sanbrallo. The chairman acknowledges that the Board could be increased and writes that the advisory council will be consulted with greater frequency in the future.

Private sector involvement can take many forms; however, that involvement should should take the forms which are most natural and helpful to TECSUP. The involvement should include representatives of those industries which TECSUP seeks to serve. Since an advisory committee already exists, we recommend that it be formally convened periodically; and that its role and the responsibilities of the committee members be clearly defined. For a decision-making or problem-solving committee, research in the field has identified that groups of approximately seven members are most effective. Hence, we agree with Chairman Hochschild and General Director Beeck that both the Board of Directors and the advisory committee be comprised of seven to nine members each.

The involvement of the advisory committee should be advisory, not managerial. However, it is critical for a private institution such as TECSUP to have such associates to provide guidance and reality testing on a systematic basis.

guidance and reality testing on a systematic basis.

Other Strategic Planning Tasks To Date

o TECSUP Operational Plan

During the June 1985 visit, department heads were interviewed to determine major department functions preliminary to development of operational plans by major department. As part of strategic planning, these operational plans are periodically updated to take into consideration changes in the organization.

Several changes have impacted on TECSUP since the last AI visit. These changes ranged from such potentially beneficial activities as the installation of the Basic Four minicomputer to coping with natural emergencies, such as the sudden, serious illness of the Director of Administration. These changes require continuous updating of the components of the operational plan for the organization. That final plan should be completed by January 1986.

o Current and Anticipated Markets and Income Opportunities

Peru is currently undergoing political and economic changes which may significantly affect the present and future environment of TECSUP. While everyone interviewed agrees with the critical need for an institution such as TECSUP, the prognostications for future demand and support for the institution vary considerably.

Analyses of current and anticipated markets and income opportunities and consequent financial positions require a great deal of thoughtful consideration and work, among which is the extensive market study mentioned above. The new government of Alan Garcia is now and will undoubtedly continue to affect

TECSUP. A recent government freeze on many goods and services directly affects TECSUP's ability to increase the fees it can charge its students in an effort to keep pace with Peru's inflation rate. It might also positively affect its own operating costs and expenses. The curbing of the inflation rate may affect interest rates and the cost of money which TECSUP may need to borrow. The change in government may also affect TECSUP costs through the direct monies and staff time needed to handle customs transactions as donated materials and equipment arrive.

The changes which are occurring now within TECSUP, Peru and at the international level increase the the difficulties and hazards of predicting developments which will affect TECSUP. Nevertheless, the dynamic nature of the external environment make even more important reasoned, systematic examination of assumptions about the future and about TECSUP's alternative courses of action.

This process of analyzing and selecting alternative courses of action for TECSUP need to be based on analyses of current and anticipated markets and income opportunities, current and projected financial positions. As part of the strategic planning process, TECSUP must also develop criteria and methods for selecting these alternative courses of action in order to determine their effect upon TECSUP. Among the criteria should be the analyses and information produced by use of the financial computer-based models discussed above, with examination of alternative TECSUP outcomes, incomes, expenditures, offerings, clients.

The results of all these analyses must then be integrated in the actual 1986 operational plans for TECSUP, into the 1986-1990

the actual 1986 operational plans for TECSUP, into the 1986-1990 Strategic Plan for TECSUP. The final feasibility check for the Strategic Plan is then conducted. These final steps are scheduled for completion during the final AI visit on January 13 to 25, 1986.

In these crucial planning activities affecting the entire organization, the directors of all major TECSUP departments or components should be involved. We recommend that the director of the German technical assistance team be included as an integral part of this planning effort.

CONCLUSIONS AND RECOMMENDATIONS

The technical assistance provided during this second Aguirre International visit targeted five major components of the organization or its planning process: Implementation of short courses, Implementation of financial and administrative procedures and systems, the market demand study, private-sector involvement; and other major components of strategic planning.

Short Course Implementation: Delaware Technical and Community College (DTCC) had delivered ten courses by October 11, 1985. Eight were being translated by engineers recruited to both translate and teach the courses. Four courses are scheduled to be offered by December 31, 1985. The enrollment in these short courses can serve as a market test, in light of the lack of an extensive market demand study. We recommend that TECSUP adhere to the schedule planned for this implementation. In addition, we recommend that TECSUP meticulously collect course evaluation or feedback from the participants of the course. We also strongly

recommend that TECSUP take advantage of DTCC staff to assist in presenting the courses as contracted; and that DTCC be allowed to extend this staff support offer to 1986, as appropriate by course.

Administrative and Financial Systems: The strategic planning review of internal operations included analyses of ten procedures recommended by Deloitte, Haskins, and Sells (DHS). The procedures for admissions plus enrollment of new and returning students which TECSUP is currently implementing correspond closely with the DHS recommendations.

We observed less correspondence between other DHS-recommended procedures related to control of funds, collection of tuition and other fees, purchasing, plus warehouse reception and issuance of materials and supplies. These procedures may or may not be adequate for TECSUP at its present level of development. Some of these procedures may be adequate for TECSUP at its present level of development. We recommend that DHS or a similar firm conduct a follow-up audit to assist TECSUP in monitoring and refining these procedures. AID/Lima has indicated that they will do so during the first two weeks of January 1986 prior to the January 13-25 A1 visit.

Toward the end of implementing effective organizational systems, Board Chairman Hochschild reports donating the services of a systems specialist to work with TECSUP staff for one month this year.

Judgements of adequacy were not made, since formal, written guidelines were not available. However, TECSUP is contracting a business consultant to develop and document the TECSUP procedures

manual. We recommend that all procedures be written, flowcharts developed and updated periodically. As TECSUP grows and acquires more equipment, small tools, and supplies, installation of the Inventory control program purchased for the Basic IV will become more vital. Through great effort and cost, TECSUP has manually implemented a record-keeping system by cost centers; data and reports are available through July 1985. Automation of this record-keeping is proceeding with the recent delivery and installation of the donated Basic Four minicomputer. An accounting software program is being installed to process the cost centers data as recommended by DHS. This program will provide detailed information by cost center; it currently lacks the capability to produce summary reports necessary for top management monitoring and decision making. Given the importance of such summaries, we recommend that this capability be added to the program. General Director reported that this is included in the contract with the vendor providing the installation support for the Basic Four system.

Private Sector Involvement: Strong continuous private sector involvement in TECSUP functioning is crucial for TECSUP's effectiveness and relevance. Such involvement could take many forms, however, the involvement should include representatives of those industries which TECSUP seeks to serve; it should be formally planned and the role and responsibilities of those representatives should be clearly described. Such associates can provide guidance and reality testing on a systematic basis. The current Board of Directors and advisory committee could serve toward this end if adequately constituted and convened regularly.

Other Strategic Planning Components: Information vital to the analysis of current and anticipated markets, income opportunities, and projected financial positions is unavailable at this time. Given the changes currently impacting TECSUP and the amount of information work required of the staff, these analyses are postponed until the third visit when more data should be available. The attached report lists tasks and information necessary for TECSUP to proceed with effective planning and management. We strongly recommend that these tasks be accomplished prior to the next AI visit to allow completion of as much of the strategic plan as possible.

For many reasons, TECSUP has yet to complete the requirements of the first donation. However, it is currently working intensively to do so, with great dedication and commitment. The service TECSUP now provides with the three-year program and will provide with the short courses not only continues to be vital for the development of the country, but has gained even greater importance with the commitment of the new government to technical training.

TECSUP continues as a unique institution dedicated to serving Peru by providing excellent training at a level totally unavailable from any other institution in the country. If it succeeds in reaching its goals as it completes the commitments of the first AID donation, it will provide a truly unique, vitally needed service to the country. It will serve as an outstanding example of a successful partnership between the private-sector of Peru and external supporters.

TASKS TO BE ACCOMPLISHED BY JANUARY 13, 1986

Several tasks need to be accomplished and information obtained for TECSUP to proceed with effective planning and management. We strongly recommend that the following be accomplished prior to the next AI visit, January 13-25, to allow completion of as much of the strategic plan as possible during that final visit.

1. Draft operational plans for 1986 for the General Director's Office, the Departments of Administration and Student Credit Fund using the draft format prepared for the Department of Instruction (see Appendix C). (These include objectives, tasks to accomplish those objectives, dates by which they will/are expected to be accomplished, resources required for their accomplishment.) These can be reviewed and modified subsequent to the planning sessions proposed for the last AI trip.
2. Draft preliminary long-range objectives for departments and the organization.
3. Update the organizational chart.
4. Prepare descriptive data on the three-year program: actual and projected (to 1990) numbers of students enrolled, who dropout, or must repeat a year; revenue; career fields taught and projected by year to 1990.
5. Prepare a budget for TECSUP for 1986.
6. Prepare Table 1 (mentioned above) on cost center data for 1985 and estimates for 1986.

7. Describe short courses: when given, number of trainees, income, and expenses in 1985 and estimated through 1990 for all 20 courses developed by DTCC.
8. Schedule participation by top organizational planners in the final strategic planning activities during the January 13-25 visit. A considerable amount of work is still needed to complete the TECSUP Strategic Plan for 1986-1990. To maximize the efficient and effective use of that two-week consultation, we propose the follow process and schedule.

Monday, January 13, 1986

Morning: AI team and TECSUP planning coordinator meet with TECSUP General Director to get update on the organization, review, adapt if necessary, and reach agreement on proposed workscope and outputs for the two-week visit.

Afternoon: AI team meets with AID/Lima officer(s) for update on the project status; review, adapt if necessary, and reach agreement on proposed workshop and outputs for the two-week visit.

Tuesday, January 14, 1986

Morning: AI team and TECSUP planning coordinator meet with TECSUP General Director and Planning Committee (comprised of directors of departments and the head of the German technical assistance team) to review the workscope, outputs, and process for completion of the Strategic Plan during the two-week visit.

Afternoon: AI team and planning coordinator gather information and meet individually with planning committee

members and their designated staff.

Periodically, AI team provides brief oral status reports to TECSUP General Director and AID/Lima project officer.

Wednesday-Thursday, January 15-16, 1986

AI team and planning coordinator gather information and meet individually with planning committee members and their designated staff.

Friday, January 17, 1986

Morning: Review progress with General Director and Planning Committee, continue data gathering and individual meetings.

Saturday, January 18, 1986

Integrate work completed into draft of TECSUP Strategic Plan 1986-1990.

Monday, January 20, 1986

Morning: Review draft to date of Strategic Plan; plan the work for the remainder of the week.

Afternoon: Continue work as planned.

Tuesday-Wednesday, January 21-22, 1986

Continue work as planned.

Thursday, January 23, 1986

Morning: Continue work as planned.

Afternoon: AI team presents exit oral report to TECSUP General Director and designates.

Friday, January 24, 1986

Morning: Revise draft as necessary.

Afternoon: AI team presents exit oral report to AID/Lima.

APPENDIX A

EL DESARROLLO E IMPLEMENTACION DE CURSOS VESPERTINOS

SHORT COURSE DEVELOPMENT AND SCHEDULING FORM

BEST AVAILABLE COPY

EL DESARROLLO E IMPLEMENTACION DE CURSOS
FORMA DE PLANIFICACION Y CONTROL

CURSO	RESIBIDO	REVISADA/	PROMOCION		TRADUCTOR/ INSTRUCTOR	TRADUCCION/ADAPT.			REVISION	MICROPRO		IMPRESION	INFRA-	INGRESO DE	CURSO DICTADO	CYC	
		ACEPTADA	PLANEARDO	IMPLEMENTADO		INICIADA	COMPL.	INICIADA	INICIA	TERMINA	FECHA	ESTRUCTURA PREPARADA	ESTUDIANTES Y EVALUADO				VISITE
1. Math for Technicians	22.08.85	-----	-----	-----	Rafael Moya Cia. Per. Telex.	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
6. Basic Tech. English	22.08.85	-----	-----	-----	Fernando Loarza Perceperel	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1. Electronic Proc. Tech. Fixing	27.07.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
8. Materials Testing	28.07.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
7. Adv. Tech English	22.08.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
8. Basic Electronics	28.08.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
7. Advanced Electronics	28.08.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
4. Mechanical Measuring Devices	29.09.85	-----	-----	-----	Felix Fernandez Agrupados Carcamas	22.08.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10. Digital Electronics	29.09.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
14. Microprocessor Fundamentals & Applications	29.09.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
13. Chemical Standards Solutions & Measurements	15.10.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
15. Administrative Testing	22.10.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
18. Machine Components	26.12.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
19. Gas Chromat A, A, & S.F. Applications	15.10.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
20. Modern Materials	15.10.85	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3. Diagram Reading		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
11. Electronic Troubleshooting		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
12. Surveying		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
16. Fundamentals Numer Proc.		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
17. Plant Maintenance Sched.		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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APPENDIX B

OCTOBER 14, 1985, MEMORANDUM FROM GENERAL DIRECTOR BEECK
TO TECSUP BOARD OF DIRECTORS

MEMORANDUM

AL : Directorio
DE : Rodolfo Beeck - Director Ejecutivo
FECHA : Octubre 14, 1985
REF. : Puesta en marcha de los cursos cortos
preparados por el Delaware Technical &
Community College (DELTEC)

=====
Antecedentes.-

Respondiendo al vivo interés del Directorio por conocer el desarrollo de este importante proyecto, resumo sus etapas de realización:

- 1) En enero 85, se firmó en Lima, entre TECSUP y Del-Tec, el convenio de prestación de servicios para el desarrollo de los 20 cursos cortos, supeditado a la aprobación de AID-Washington (PRE).
- 2) En agosto 85, PRE aprobó el convenio, con muy pocos cambios, cediendo a AID-Lima el control de los fondos de la donación.
- 3) En Set. 17/85 , AID-Lima giró a Del-Tec U.S.\$152,000. destinados a cubrir los primeros gastos del convenio.
- 4) Entre 23 y 26 de agosto 85, TECSUP recibe de Del-Tec los primeros cinco cursos, para ser traducidos al "peruano" (castellano entendible por el técnico que lo recibe); y luego imprimirlos y ofrecerlos. La traducción se inicia el 17 de setiembre con la única copia llegada. La segunda, que permite la revisión simultánea con la traducción llega al aeropuerto recién el 11 de octubre, a pesar de haber sido solicitada desde el 23 de agosto.
- 5) En la primera quincena de noviembre/85 TECSUP se propone dictar los cursos que hayan encontrado acogida entre el primer grupo de empresas encuestadas.

Programa de Implementación.-

Con decisión de cumplir con nuestro compromiso de poner en marcha aquellos de los cursos cortos que estén completos (recibidos, traducidos, impresos y ofrecidos a las empresas que han manifestado interés en ellos), hemos organizado el desarrollo paralelo de dos cursos de acción urgente:

1) Verificación del mercado potencial inmediato en el sector industrial, manufacturero para los cursos vespertinos, en las siguientes etapas:

- 1.1. Identificación de las empresas con personal total mayor de 100 personas; ya realizado. (Ha dado un total de 167 empresas distribuidas en la Gran Lima)
- 1.2. Selección.- con la colaboración de los Presidentes de los Comités- de un primer grupo de 40 a 50 empresas con las siguientes características:
 - Cercanía a TECSUP;
 - satisfactoria condición de ventas en 1985;
 - modernidad de su equipo; y,
 - conciencia, a nivel gerencial, de la importancia de la capacitación del personal de mando medio, como recurso para lograr eficiencia operativa.
- 1.3. Visita a cada una de las empresas seleccionadas por un representante calificado de TECSUP. (El Ing. Electromecánico James Kemp con largos años de experiencia industrial en el Perú, en el campo de mantenimiento de equipo) a quien se encomienda actualizar la "ficha de empresa" verificando al mismo tiempo el interés de las empresas por los cursos cortos que estén listos para ser dictados antes de fin de año (mitad de noviembre) continuando luego los primeros meses del próximo año.

Las entrevistas se harán a nivel gerencial entregando un folleto promocional preparado, que la imprenta nos entregará a partir del 25 de octubre y que se acompañará con una invitación a visitar TECSUP un día jueves a las 11:30 a.m.

Los programas intensivos-diurnos de cursos cortos, destinados al personal de empresas mineras serán iniciados durante el primer semestre de 1986.

2) Recepción, traducción, complementación, impresión y dictado de los cursos cortos propuestos por el Tecnológico de Delaware.-

Hasta el 14 de octubre hemos recibido de Delaware diez cursos en inglés. Ocho de ellos están siendo traducidos por ingenieros peruanos contratados a tiempo parcial con experiencia en el tema e interés subsecuente de enseñar el curso que han traducido y complementado (para que sea entendible por el técnico-práct-

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tico al que está destinado).

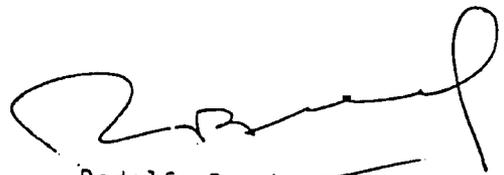
La mecanografía final de los cursos se programa lograr con dos procesadores de palabras Multitech (compatibles con el IBM PC) que han llegado a la aduana del aeropuerto y que se esperan desaduanar liberados antes de fin de octubre.

Los equipos complementarios requeridos para dictar los cursos han sido adquiridos y deberán ser despachados por Del-Tec a fines de octubre también. (Tan pronto tengamos resuelto el otorgamiento de la liberación de derechos, para evitar los riesgos del almacenamiento prolongado en la aduana).

Durante el mes de noviembre, nos proponemos hacer coincidir la terminación del programa de oferta de los cursos con el de la preparación de los mismos, para poder empezar el dictado de los que se encuentren listos y hayan encontrado acogida entre el grupo inicial de industrias entrevistadas. (Este comprende las 23 industrias localizadas en Ate -vecinas a TECSUP- que tienen un personal total de 1,000 personas entre las cuales podrían haber 200 interesados).

El estudio más extenso del mercado para TECSUP, que aporte una base más amplia de la demanda (comprendiendo todas las industrias con más de 50 operarios) nos propondríamos completar durante el primer trimestre 86. Para ese entonces confiamos recibir el bus ofrecido en donación por la Mercedes Benz, que será una ayuda importante para los interesados procedentes de empresas más alejadas.

Confiamos que la Dirección de la Misión de AID aprecie la celeridad y seriedad con la que TECSUP está cumpliendo su parte del compromiso dentro del muy corto plazo de implementación y las dificultades que ha tenido. Tal prioridad expresa la importancia que para TECSUP tienen los cursos aludidos.



Rodolfo Beeck
Director Ejecutivo

APPENDIX C

DEPARTMENT OF INSTRUCTION OPERATIONAL PLAN

DRAFT

OPERATIONAL PLAN

DEPARTMENT OF INSTRUCTION January 1985

The Department of Instruction researches, develops or adapts, as necessary, and administers all TECSUP instructional programs. Its primary clients are TECSUP trainees. As of June 1985, these trainees included 72 first-year students and 11 second-year students in the three fields of a. Plant Maintenance, b. Electronics, and c.

OBJECTIVES (What will be done, by when, at what standard of quality, and how will attainment and quality be measured?)

1. To develop curriculum and instructional programs in four technical fields for the three-year program.

1.1 By March 1986 the Department of Instruction will have a written document describing the TECSUP curriculum for the three-year program, detailing the courses required for each of the fields of study to be offered for 1986-1987.

Resources Required
Departmental staff.

1.2 By March 1986 the classes required of first-year students will be identified and fully prepared including availability of a syllabus, listing of materials and equipment to be used and types of tests or other measures of mastery to be used.

Resources Required
Departmental staff.

2. To develop and implement a publicity/recruitment campaign to recruit students for the courses offered.

2.1 By November 1985 identify the objectives and develop the publicity and recruitment activities to be implemented to promote the three-year program.

Resources Required
Departmental staff.

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- 2.2 By January 1986 implement the following activities to publicize and recruit students for the three-year program.

Resources Required

Departmental staff.

3. To develop and implement the student admissions process, from the development of tests, organizing the administration, scoring and analyses of tests, notification of students, notification and coordination with the directors of Social Services and Student Credit Fund.

- 3.1 By February 1986 identify student skill requirements for admissions into the three-year program by career.

- 3.2 By February 1986 determine which tests are needed for admission, research the availability of acceptable tests, acquire or develop examination materials needed for the expected numbers and types of applicants expected.

Resources Required

- a. Instructional staff responsible for individual career fields and classes to be offered during 1986-1987.
- b. Consultant services.

4. Organize and hold the classes for the three-year instructional program as planned for the 1985-86 year: By March 1986 identify, recruit as necessary, and assign teaching staff for each of the courses offered. Offer classes as scheduled according to standards set by TECSUP and within the requirements of the Peruvian Ministry of Education.

Resources Required

- a. Faculty in the following areas:
- b. Facilities, equipment and materials for each of the courses to be offered.
- c. Faculty prepared syllabi and instructional materials.

5. To review and provide feedback on English-language instructional units developed by Delaware Technical Community College, and to adapt as needed for use as short courses to be offered to Peruvian companies.

5.1 Within 10 days after receiving the DTCC English-language materials, Department of Instruction staff will review and provide written feedback to DTCC staff for preparation of TECSUP short courses.

Resources Required

Departmental staff.

5.2 Within 45 days after receiving the final DTCC units, adapt the short courses to fit Peruvian needs and requirements, that is, translate or adapt the necessary text; identify the equipment needed, if any; and adapt or develop audio/visual and instructional materials needed.

Resources Required

Departmental staff.

6. By December 1986, offer at least ten short courses in the areas identified as in demand by Peruvian companies.

6.1 By December 1986, identify and schedule short courses to be offered by December 1986.

Resources Required

6.2 By January 1986, develop and mount a publicity campaign promoting the short courses scheduled so as to result in at least 15 paying participants per course.

Resources Required

6.3 By January 1986, identify, recruit as necessary, and assign teaching staff for each of the courses offered.

Resources Required

- a. Faculty in the following areas:
- b. Facilities, equipment and materials for each of the courses to be offered.
- c. Faculty prepared syllabi and instructional materials.

- 6.4 Offer short courses as scheduled according to standards set by TECSUP.

Resources Required

- a. Faculty in the following areas:
- b. Facilities, equipment and materials for each of the courses to be offered.
- c. Faculty prepared syllabi and instructional materials.

7. On an ongoing basis, evaluate the offered for the programs offered.

- 7.1 For the three-year classes, identify the methods to be used to assess student process and performance mastery criteria by the beginning of each. By the first day of classes, schedule assessment dates; administer tests and other assessment procedures as scheduled.

Resources Required

Departmental staff.

- 7.2 Faculty will analyze results of student assessments and report to the Director of Instruction and General Director no later than three days after the end of the testing period.

Resources Required

Departmental staff.

- 7.3 For the Short Courses Program, a. Identify prior to the offering of each short course the training outcomes expected/desired; b. Identify and obtain or develop assessment methods to be used; c. Schedule assessment dates and collect assessment data as scheduled.

Resources Required

- 7.4 For the Short Courses Program, design a trainee evaluation form to obtain trainee feedback on the training received.

Resources Required

- 7.5 The Director of Instruction and General staff will designate faculty to examine evaluation results and made recommendations for program planning and implementation.

Resources Required

8. By December 1985 design, maintain and supervise student files and academic progress. Provide student and instructional program information as required of a technical institute.

- 8.1 As required by government regulation provide the Peruvian Ministry of Education with required students profile information and reports required of all technical institutes. By December 1985 identify the information and format to be provided to the Ministry, develop a schedule for provision of the information, assign and monitor staff responsible for providing the information.

Resources Required

- a. Staff to be gather and prepare report for the Ministry of Education.
 - b. Administrator time monitoring record keeping and reporting.
 - c. Data management system which stores and allows retrieval of desired information in the format required.
- 8.2 To provide the Department of Administration with information necessary for the billing of students. By October 1985 identify the information and format to be provided to the Department of Administration, develop a schedule for provision of the information, assign and monitor staff responsible for providing the information.

Resources Required

1. Staff to be gather and prepare report for Department of Administration.
 2. Administrator time monitoring record keeping and reporting.
 3. Data management system which stores and allows retrieval of desired information in the format required.
9. Supervise the maintenance and inventory control of instructional equipment and materials.

Resources Required

Departmental staff.

TIMELINES

JAN. FEB. MAR. APR. STATUS MAY. JUN. JUL. AUG. STATUS SEPT. OCT. NOV. DEC. STATUS

APPENDIX D

SAMPLE OF INFORMATION SYSTEMS/DATA PROCESSING
NEEDS ASSESSMENT FORM

DRAFT

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AUTOMATED DATA PROCESSING NEEDS ANALYSIS FOR TECSUP
MANAGEMENT INFORMATION SYSTEMS ANALYSIS QUESTIONNAIRE

Name: _____ Role: _____ Department: _____ Date: _____

1. What are the types of information which you or your department must process?
2. What kind of documents must your department process or prepare and what records or filing systems are needed for these documents?

How often must these documents be changed or updated?

3. What types of analyses of this information is required and how often?
4. What types of reports must you make? How often per report type?
5. What other information processing needs do you or your department have?

Summary of Information Processing Needs

Information Type	Amount	How often Changed	How often Analyzed?	How often Reported?	To Whom?
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1. Correspondance
2. Texts/Manuals, etc.
3. Numerical Data
4. _____
5. _____
6. _____
7. _____

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