

PD-NAP-136
 ISN 34277

UNCLASSIFIED
 CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE RURAL TECHNOLOGY TRANSFER SYSTEM			2. PROJECT NUMBER 518-0032	3. MISSION/AID/W OFFICE USAID/Ecuador
			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	
5. KEY PROJECT IMPLEMENTATION DATES		6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION
A. First PRO-AG or Equivalent FY <u>80</u>	B. Final Obligation Expected FY <u>85</u>	C. Final Input Delivery FY <u>87</u>	A. Total \$ <u>24.1233 million</u>	From (month/yr.) <u>August 1980</u>
			B. U.S. \$ <u>10.3 million</u>	To (month/yr.) <u>March 1983</u>
Date of Evaluation Review				

8. 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 AID/W or regional office action should specify type of document, e.g., telegram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Differing philosophy & conceptualization of role & importance of Title XII Technical Assistance between CONACYT & Executing Agencies, A.I.D, and the U. of Florida, requires a series of meetings to explain Title XII role and importance, developing a catalog of Title XII resources, and visits by CONACYT staff to Title XII Universities.	USAID/Ecuador Project Officer & U. of Florida Chief of Party	January 1984
2. Subproject approval and fund dispersal process is not well defined, understood, or followed, which requires meetings to define the role and responsibility of participating institutions and a method to insure adherence to any mutually agreed upon process for achieving this.	USAID/Ecuador Project Officer	February 1984
3. The issue of fungibility of loan and grant funds which is restricting subproject approval by constricting available financing will require meetings with the Central Bank, Ministry of Finances, CONACYT, and Ecuador's Attorney General's Office to clarify the interchangeability of loan and grant funds for financing subproject activities.	USAID/Ecuador Project Officer	March 1984
4. The issue of deteriorating communications between CONACYT and USAID/Ecuador - U. of Florida should be resolved as a natural result of solving the other problems listed here.		
5. Non-compliance with C.P. 5.2 related to private-sector research subprojects, a lack development priorities to rank subprojects, inadequate RDD staffing, and no yearly		

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

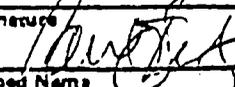
10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. <input type="checkbox"/> Continue Project Without Change
B. <input type="checkbox"/> Change Project Design and/or
<input checked="" type="checkbox"/> Change Implementation Plan
C. <input type="checkbox"/> Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Darell McIntyre, Project Officer
 Joseph Goodwin, Agriculture & Rural Development Officer
 Kamal Dow, Chief of Party - U. of Florida
 Angel Matovelle, Executive Director - CONACYT
 Ruben Salazar, Chief/RDD - CONACYT

12. Mission/AID/W Office Director Approval

Signature: 

Typed Name: Paul Fritz, Actg. Director

Date: March 5, 1984

Section 8 of "RURAL TECHNOLOGY TRANSFER SYSTEM" PES continued:

operational plan have made institutionalization of the RTTS by CONACYT very difficult. If CONACYT cannot meet these requirements, a Project Agreement Amendment may be required

USAID/Ecuador
Project Officer April 1984

6. The problem of unclear division of duties and responsibilities among the principal institutions has led to an overlap into each other's work. Resolution of this will require the U. of Florida to concentrate on developing a priorities paper and the Chief of Party being assigned and advisor to CONACYT's Executive Director; AID becoming more assertive in developing a consensus of the Project's objectives, use of Title XII technical assistance, and compliance with Conditions Precedents and Covenants; and CONACYT's placing emphasis on policy and priorities, and not "second guess" technical specifications of subprojects unless they are clearly inconsistent with policy.

USAID/Ecuador
Project Officer
and Agriculture
& Rural Development Officer April 1984

Although not specifically recommended by the evaluation team, AID/Ecuador believes that sufficient disagreement with the Project's purpose exists on the part of CONACYT, that the next regular evaluation scheduled for March 1984 must address the issue of fundamental project modification, change in implementing agency, or discontinuation of the project.

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XD-AAP-136-A

EN 34278

FIRST ANNUAL EVALUATION OF
A.I.D. PROJECT:

"RURAL TECHNOLOGY TRANSFER SYSTEM"

held in

Quito and Guayaquil, Ecuador
January 31 - February 18, 1983

and in

Gainesville, Florida
March 28-31, 1983

by

Dr. Morris Whittaker;
Utah State University

and

Marco Jaramillo,
National Development Council (CONADE)

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I. EXECUTIVE SUMMARY

This evaluation was carried out by a panel which included representatives of CONACYT, University of Florida, USAID and two outside evaluators, one from CONADE and one from Utah State University and their report consists of five sections plus Annexes.

Section II deals with external aspects which have influenced project implementation. Among them, Ecuador's economic and financial situation during the first year's project implementation, the lack of political support for CONACYT, the lack of a technological and scientific development policy in the rural sector, and a lack of clear understanding of rules and regulations among the parties involved: GOE (CONACYT and executing agencies), USAID, and the University of Florida. Finally, both administrative and institutional constraints of the host country agencies are analyzed.

Section III discusses project implementation progress to date. It is divided according to the specific project purposes: Part A focuses on progress toward establishing a Rural Technology Transfer System which can address major sectoral constraints; Part B considers progress toward: 1) coordinating, strengthening and forming linkages among research, education and extension institutions serving the agricultural sector, developing a trained human resource base, improving management and delivery systems as well as analytical and statistical capabilities; and 2) developing and disseminating technologies appropriate to the needs of small farmers and the agricultural sector.

The findings of Section III are summarized below:

A. RTTS Institutionalization

Project inputs of \$2.5 million with additional GOE counterpart funds of US\$1,365 million were programmed for technical assistance, project development and support, training, commodity procurement, etc. Two special accounts were intended for private sector research and development and small subprojects.

Several project outputs were called for in the Project Logical Framework but the greatest progress was obtained where the output goal (eight subprojects developed and approved) was attained in a rather short time. Less progress has been achieved in other project outputs. The private sector R&D activities and the small subprojects activities, added in the July 1982, Loan Agreement, did not show any outputs achieved at the time of this evaluation.

With respect to the Project Purpose and End of Project Status, partial progress has been realized toward what was stated in the log-frame. CONACYT and the University of Florida have developed procedures and processes for developing, reviewing, selecting and implementing agricultural science and technology projects.

B. Progress toward an Articulated Research-Education-Extension System and Improved Technologies, via Subprojects.

The subproject is considered the primary mechanism for accomplishing technological change and the overall goals and objectives. As mentioned earlier, eight subprojects have been approved and funded.

A substantial amount of the programmed funds for subproject financing has been committed; nevertheless, the vast majority are grant funds, although it is possible to reprogram existing subprojects to include more loan funds.

With respect to technical assistance, one of the project's major objectives is to develop strong ties with the international network of agricultural science institutions, especially the Title XII Universities. A major input problem is the lack of agreement between CONACYT, the University of Florida and the implementing agencies over the amount and type of TA required as well as the role of Title XII Universities in supplying the TA.

It is early for an objective evaluation of subproject outputs, it is expected that the project obtain the goal of eight completed subprojects by the project agreement completion date.

All approved subprojects include training (for professional and technical personnel and farmers served by them). Since the subprojects are in their initial phases, only four have generated new technologies, thus far.

The subproject component is intended to contribute in strengthening rural and agricultural research, education and extension institutions, developing and disseminating appropriate technologies, and establishing linkages with Title XII universities. Less progress has been made with the latter purpose.

Section IV deals with issues and problems identified by the two outside evaluators. Six are the problems identified:

1. Conceptual: There are fundamental differences of opinion between CONACYT and University of Florida, A.I.D. and the executing agencies concerning the role of Title XII Universities. CONACYT's preference for hiring Ecuadorean or Latin American advisors does not agree with the primary project objective of developing strong linkages with Title XII Universities, as set forth in the Grant and Loan Agreement.
2. Procedural: The process for subproject approval and disbursement of funds is not clearly defined, understood or followed. The relatively large number of institutions involved, the different sources of funds and the juxtaposition of Ecuadorean, U.S. and Florida rules and regulations, all combine to increase the opportunities of misunderstanding.
3. Fiscal-Legal: There are differences of opinion over the fungibility of loan and grant funds, a funding constraint has already delayed project implementation, and narrow legal opinions at CONACYT are restricting project flexibility.
4. Communication: There is inadequate and inefficient communication among the various participants in the RTTS Project leading to increased levels of interpersonal conflicts.
5. Compliance with Conditions Precedent and Special Covenants: Two of these conditions, developing subproject selection procedures and criteria and issuing a set of priorities consistent with national development goals for use in ranking subprojects, have not been met. Failure to comply with these conditions and covenants has seriously restricted project development and implementation.
6. Institutional Performance and Roles: The performance of the three main institutions (CONACYT, UF, A.I.D.) has been reduced by failure to clearly define the division of responsibility, and by the resulting tendency to overlap jurisdictions.

Section V contains the general conclusions and recommendations of the outside evaluator team, which are summarized below:

1. Role of Title XII Institutions: A.I.D. should convene meetings with CONACYT and the executing agencies to explain the basic project purpose, the subproject selection criteria should be amended to include the need of T.A. as a requirement for subproject approval, a catalog of Title XII resources should be developed, CONACYT's staff should visit selected Title XII Universities, and if reduced Title XII participation is contemplated, then an amendment to the Project Agreement, which includes A.I.D./W and BIFAD review should be prepared.
2. Subproject Approval and Fund Disbursal Process: A.I.D. should convene a meeting with CONACYT and Florida to define process and respective responsibilities which includes a checklist of institutional assignments, a revised programming process, and A.I.D. and Florida participation in all final CONACYT deliberations.
3. Fungibility: CONACYT and A.I.D. need to agree that project loan and grant funds are interchangeable.
4. Communication: Communication between institutions is expected to improve as a natural result of solving the other problems.
5. Conditions Precedent: CONACYT needs to immediately provide documentation required by Condition Precedent 5.4, hire the required staff, and prepare a CY 1983 implementation plan.
6. Institutional Performance: Florida should concentrate on assisting CONACYT develop a priority paper on subproject approval, fund disbursal and subproject development and implementation. A.I.D. should take the lead in developing a consensus on the broader project objectives. CONACYT should concentrate on developing its policy and priority paper and not second guess implementing agencies on technical specifications.

II. "MACRO" ASPECTS OF THE PROJECT'S DEVELOPMENTAL ENVIRONMENT

Following are some of the aspects that have directly or indirectly influenced project implementation and that have not been resolved.

A. Economic and Financial Situation of Ecuador

Ecuador faces a difficult economic and financial situation - an economy in crisis; as a result of domestic and external problems.

Among the former, is the excessive public and private sector foreign debt, and an increasingly restricted fiscal and monetary policy.

External-based problems are a result of the world economic recession which has caused a reduction in the demand for primary products and consequent price reductions resulting in adverse impacts on the Ecuadorean economy, given its dependence on foreign commerce. Also, the Ecuadorean development model, particularly the industrialization model, has in some cases depended excessively on importing capital goods, intermediate goods, raw materials and technology. The above-mentioned facts have caused very serious balance-of-payments problems.

This situation, among other considerations, led to a 32% monetary devaluation in May 1982, and to the promulgation of a series of governmental resolutions issued within a policy of austerity that began in 1982, and continues. This has had direct influence on project implementation because all of the subproject implementing units find themselves affected by measures such as eliminating or establishing lengthy processes to occupy vacant positions, prohibiting the creation of new positions and posts, reducing to the maximum extent possible the granting of travel tickets and per diem, prohibiting the utilization of uncommitted balances of funds assigned for procurement of goods, furniture, vehicles, real estate, and contingencies, the 5% reduction in each public sector institution's budget, and the need to have the National Development Council's (CONADE) prior approval for any consulting contract.

Additionally, the devaluation increased the local currency (sucre) costs of technical assistance, overseas training, etc.

B. Policy Aspects

On December 1, 1982, the National Board for Science and Technology held its first meeting. This is important to note because the CONACYT Executive Director did not have, until then, the political support that could favorably influence project implementation.

C. Non-existence of a Detailed Policy and Program of Scientific and Technological Development in the Rural Sector

This has been a decisive factor in project implementation. Considering the lack of a definite policy and program on this matter, it has not been possible to provide a better orientation to CONACYT's development activities. This problem is being gradually resolved, but it must receive more attention.

D. Legal and Budgetary Aspects

There exist legal and regulatory aspects in the country, as well as in A.I.D. and in the University of Florida, which constrain project implementation. This situation is important because all of the institutional units which participate in project implementation do not know these aspects in detail.

E. Administrative and Operative Aspects

As pointed out in previous paragraph, the lack of adequate knowledge of these aspects meant that project implementation was not carried out as quickly as it could and might have been done.

F. Insufficient National Capacity for Project Preparation

This aspect has been evidenced in almost all the beneficiary institutions receiving financial resources from the RTTS Project. Deficiencies or inadequacies in financial requests' preparation have not been overcome by the project.

G. Aspects with Regard to Institutional System

It should be noted that in some cases the necessary relationships among the different institutions involved in a given project implementation are insignificant or non-existent.

III. PROGRESS OF THE PROJECT

This section contains a description of progress realized to date in implementing the project. It is divided into two parts: Part A focuses on progress toward realizing the first purpose of the project, which is to establish a Rural Technology Transfer System (RTTS) -- a management, administrative, and financial system which can address major sectoral constraints.

Part B considers progress toward the achievement of the other two major purposes of the project: (1) coordinating, strengthening, and forming linkages among research, education, and extension (REE) institutions serving agriculture, developing a trained human resource base, and improving management and delivery systems, and analytical and statistical capabilities; and (2) developing and disseminating technologies appropriate to the needs of small farmers and the agriculture sector in general. These two project purposes are to be achieved through the development and implementation of a series of subprojects executed by REE institutions with technical assistance and training provided principally by Title XII universities. Consequently, the focus in reviewing progress in Part B of this Section is on the subprojects.

The RTTS project is now in the 19th month of implementation and is authorized to continue through FY 85. Since the project is relatively new, project outputs are just beginning to come "on stream", especially in the subprojects, and signs of progress toward achieving project purposes yet are limited and embryonic in nature. Consequently, the principal focus of evaluating project progress is on the timeliness and magnitude of provision of project inputs.

Nevertheless, there are data which suggest that some project outputs are beginning to be realized, and that progress toward achievement of project purposes and "end-of-project status" is being realized for some project purposes, but thwarted for others. These data are much more subjective than for the provision of inputs, but do provide a sense of progress toward achieving project outputs and purposes, and end-of-project status.

A. Progress Toward Establishing a Rural Technology Transfer System (RTTS)

One of the principal purposes of the RTTS project is to institutionalize a system for transfer of technology to

small farmers, and Ecuadorean agriculture in general. The original proposal was to develop the RTTS as an integral part of the new Rural Development Secretariat, but the latter's mandate was narrowed to just integrated rural development projects. The National Science and Technology Council (CONACYT), created in September, 1980, was given a broad mandate to coordinate science and technology activities, and A.I.D. and the GOE agreed that it was the appropriate home for the A.I.D. funded RTTS project.

1. Project Inputs: The original Project Agreement provided \$5.3 million in A.I.D. grant funds, of which \$1.0 million was for the institutionalization of the RTTS in CONACYT, and the balance was for the achievement of the other two major project purposes through the implementation of subprojects (see below).

On July 19, 1982, an add-on of \$5.0 million of A.I.D. loan funds was executed, of which \$788,000 was for the RTTS. Loan funds of \$712 thousand were directed toward subprojects which had been grant funded under the original project, so additional grant funds of \$712 thousand could be freed up for the RTTS component of the project. Thus, under the expanded project, the total grant funds for RTTS are \$1,712,000 and loan funds are \$788,000 for a total of \$2,500,000. In addition, the GOE is committed to providing \$1,365,000 in counterpart to the RTTS, for a grand total of \$3,865,000.

The loan and grant funds from A.I.D. for institutionalization of the RTTS element of the project within CONACYT were programmed for: (1) technical assistance; (2) project development and support; (3) training of CONACYT personnel; (4) equipment, materials, and vehicles; (5) hiring of a local project specialist; and (6) two special accounts to finance private sector research and development (R&D), and small subprojects (see Table 1).

GOE funds were for the operating budget of CONACYT.

The evaluation team finds that project inputs have generally been provided on a timely and effective manner, and that the project is generally on target regarding its implementation schedule.

The technical assistance was contracted by A.I.D./ Ecuador in collaboration with CONACYT from the University of Florida in a very expeditious manner and the Chief of Party was in Ecuador on June 29, 1981, the day before the Contract with Florida was signed. The second advisor was hired on May 1, 1982, as required by the Contract, and an Ecuadorean Advisor was hired later on.

These long-term advisory services comprise ten person years at a projected cost of \$1,025,000; to date, approximately 3.2 person years of long-term technical assistance have been provided at a cost of about \$330,000. In addition, 10 person months of short-term advisory services to the RTTS have been budgeted at \$90,000, and 1/2 person month has been provided to date. The total cost for technical assistance is projected at \$1,115,000, which is all grant funded.

Table 1 - Funding for Development of RTTS in CONACYT

	(L)	(G)		(EXPENDITURES)
A. A.I.D. funds:				
1. Technical Assistance	\$ ---	\$1,115,000	---	\$330,000
2. Project Development and Support	---	450,000	---	50,000
3. Training	80,000	---	---	2,000
4. Equipment/Materials	118,000	2,000	---	29,000
5. Project Specialist	20,000	---	---	---
6. Small Subprojects	200,000	---	---	---
7. Private Sector R&D	300,000	---	---	---
8. Inflation	70,000	145,000	---	---
9. Subtotal	788,000	1,712,000	0	411,000
B. GOE funds	---	1,365,000	---	?
C. Grand total	788,000	3,077,000	0	411,000

Project development and support funds have been projected at \$450,000 to assist in subproject design and evaluation, including contracting of outside technical expertise. These are grant funds, added in the loan agreement by shifting loan funds to subprojects previously grant funded. To date about

\$50,000 has been utilized for subproject design and for evaluations, including this one, principally for short-term advisory services.

Loan funds of \$80,000 have been allocated to training of CONACYT personnel, \$118,000 for equipment, materials, and vehicles (with an additional \$2,000 from grant funds); \$20,000 for a local project specialist, \$300,000 for private sector R&D, and \$200,000 for small subprojects. Loan funds have not yet been cleared by the GOE, although they have been released by A.I.D. In the meantime, grant funds have been used to finance these activities as follows:

Training of CONACYT Personnel	\$ 2,000
Equipment, material, vehicles	29,000
Project Specialist	---
Private Sector R&D	---
Small Projects	---
Total	<u>\$31,000</u>

Once the loan funds are released, they will be, apparently, reprogrammed to cover the deficits in grant-funded activities incurred by these expenditures.

2. Project Outputs: The project inputs have been utilized in such a manner that progress toward project outputs in terms of an institutionalized RTTS system can be noted, although the indicators are somewhat subjective in some cases. The magnitude and kinds of outputs called for in the Project Logical Framework (Annex C) are as follows:

1. Eight professionals, and supporting clerical staff on board and trained in CONACYT Rural Development Division (RDD)
2. Eight subprojects developed and approved
3. Ten small subprojects approved and funded
4. Six private sector R&D activities approved and funded
5. At least \$8.3 million in A.I.D. funds disbursed for subprojects and other activities

The greatest progress can be noted in Category 2 where the output target has been realized after only 19 1/2 months into the project. To date, eight subprojects have been approved by A.I.D. and CONACYT

for funding under the RTTS system. Included are: (1) COMSA/INIAP; (2) IDAPA/INIA?; (3) IERAC; (4) SEAN/INEC; (5) PITALPRO/U. of Ambato; (6) Native Genetic Materials/U. of Machala; (7) Brucellosis Control/U. of Machala; and (8) Insect control/U. of Machala. There are three other subprojects which have been approved by CONACYT but still require A.I.D. approval: (1) ESPOL/Food Technology; (2) ESPOL/Fish Culture; and (3) INP/Small Fishermen Technology Extension. Thus, there are eleven subprojects which now are, or soon will be, under implementation.

In addition, two other subprojects have been approved by CONACYT and A.I.D. at the "profile" stage, and project papers will be presented to CONACYT in the near future (INERHI/Irrigation; and IFADRI/Fruit Crops). Finally, several other subprojects are being developed at the profile stage, some of which are being revised at the suggestion of CONACYT after an initial review.

The remarkable progress in achieving this project outputs is due, in large part, to a concentrated effort on the part of CONACYT, and the University of Florida advisors. Early in the project, Florida's Chief of Party and staff have developed, in collaboration with CONACYT, several sets of guidelines and criteria for development, submission, review and selection of subprojects. Included are:

1. "Criterios para la Evaluación de Proyectos"
2. "Guía para la Presentación de Perfiles de Proyectos al CONACYT"
3. "Formularios de Proyectos CONACYT"
4. "Informe de Evaluación de Perfiles"
5. "Guía para la Evaluación de Proyectos"

These guidelines were prepared by University of Florida advisors and RDD staff within the first six months of the project and have provided a set of procedures for a reasonably orderly processing of project proposals. Florida's role in helping to develop the procedures and criteria for selecting subprojects has been critical to the success of this element of the project.

Less progress has been realized in achieving the other project outputs, although substantial project outputs are not usually realized this early in an

institution building project. The RDD staff has recently been increased to three professionals, far short of the eight professionals and supporting staff to be on board and trained at the end of project.¹

Moreover, only one of those professionals has received any special training -- 5 days in Costa Rica. Some in-service training has taken place but this is restricted because of the limited number of professionals in the RDD, and because Florida's advisors have had to fill in line positions in order to review the large number of projects approved, and have had little time to plan and execute an in-service training program.

The small projects, and private sector R&D activities were added to the project in the Loan Agreement in July, 1982. Since loan funds have not yet been disbursed, outputs under these elements cannot be expected for several months. While no small projects have been approved, several are under discussion. Also, Florida's advisors have suggested a process for reviewing CONACYT/RTTS support for small projects and for private sector R&D activities (see "Procedures for Selection and Approval of Small Sub-projects", prepared by Kamal Dow). CONACYT has adopted these guidelines but has not yet forwarded them to A.I.D. to meet a condition precedent to the Loan Agreement. Some small projects, and private sector R&D activities should be approved and funded by the next annual evaluation.

Finally, the project output of \$8.3 millions in A.I.D. funds disbursed by the RTTS by the end of the project is just starting, since the eight subprojects that have been approved and funded are all relatively new. While RTTS funds approximating \$3.0 million have been committed for subprojects approved by CONACYT, less than \$300,000 has been disbursed to

¹The loan add on requires the RDD staff to be increased by 5 professionals by January 1, 1983, as a special covenant of the Loan Agreement. The austerity program of the GOE has made it difficult for CONACYT to meet this requirement, but there is evidence that additional staff will soon be appointed.

date. It is expected that disbursements will proceed as scheduled, and by the next annual review, disbursements should be substantially greater than at present.

3. Project Purpose and End-of-Project Status: The end-of-project status, which is an affirmative statement of the first project purpose (institutionalizing the RTTS) is as follows in the log frame:

"CONACYT has a functioning mechanism for selecting subprojects in accordance with national science and technology priorities for the rural sector, providing them with technical and financial resources, and monitoring their implementation."

Some progress has been realized toward this state. Most notable is the existence of a mechanism and system for developing, reviewing, selecting and implementing science and technology projects for agriculture, and the relatively large number of subprojects developed and approved using this system. CONACYT, with strong support from University of Florida advisors, has developed these procedures and processes, and while they are imperfect and suffer from several problems and deficiencies, they are being utilized on a regular basis, and are beginning to take on the character of a more formal mechanism. Moreover, CONACYT is working with an increasing number of research, education, and extension agencies serving Ecuadorean agriculture, and the rudiments of an institutional system are beginning to emerge.

The RTTS, however, is a very fragile and tenuous institution at this point, and while progress is being made toward the achievement of the purpose of the project--institutionalization of the RTTS--there are several serious problems which are constraining more rapid development of this institutional complex; which, if not resolved, will surely limit progress. These problems are discussed in Section IV below, while the next part of this Section turns to a discussion of progress toward project purposes of an improved and articulated research, education, and extension system; and improved technologies for Ecuadorean agriculture; both to be realized through the implementation of subprojects.

B. Progress Toward an Articulated Research-Education--
Extension System, and Improved Technologies, both via
Subprojects

1. Introduction: As stated in the Project Paper Amendment (p. 24), "the subproject is the primary mechanism for accomplishing technological change and achieving the overall project goals and objectives."

Through individual subprojects and the complete portfolio, the RTTS will not only generate and diffuse appropriate technologies, primarily to the small farmer, but it will also enhance CONACYT's "role as the coordinator and promoter of science and technology in Ecuador" (p. 24). Because of the centrality of the subproject mechanism, as both means and ends, three-fourths of A.I.D. funding was allocated to this element of the RTTS project. The first part of Section IV analyzes the role of the subproject component in institutionalizing the RTTS within CONACYT. Here, we shall focus on the results achieved thus far in promoting, formulating, selecting, and implementing the subproject portfolio.

In order to assist in evaluating the current status of the portfolio, Table 2 presents a summary of all the subprojects which have been proposed or suggested for RTTS funding. It uses as a comparative baseline the summary description found in Table 3 (p. 28) of the Loan Add-on Amendment paper. It is important to note that some of the projects in the original table were included for illustrative purposes only. The fact that their total potential cost exceeded combined loan-grant value of the contract by over 5 million indicates that there was no intention to fund all of them. However, all are included in Table 2 in order to provide a comprehensive summary of subprojects results up to this point.

Before entering into systematic analysis of the subprojects, as suggested by the Logical Framework, we again emphasize that considerable progress has been made during the first 19 months of the project. As indicated in Table 2, there are currently seven subprojects formulated, approved, funded, and underway (those classified as Status A), and another is fully approved and is just waiting for disbursement of loan funds. These eight subprojects are spread throughout the three subproject categories, or clusters,

but considered to be essential to rural development, technology diffusion, institutional development, and human resources improvement. There are a number of promising subproject proposals in each of these three categories.

Table 2 - Status of RTTS Subprojects^a

(February 1983)
(000)

Project (Level Agency)	Status ^b	Technical Assistance	Training	RTTS	Funds AID	Other
A. Technology Development/Diffusion						
1. Fruit Crops (INIAP)	D	Title XII	2,000	1,401.0	615.3	
2. Vegetable Crops (INIAP)	E			1,532.9		
3. Bean Research CRSP (INIAP)	G	(No longer part of portfolio)				
4. Soybean Prod. (INIAP)	E			669.0		
5. Fisheries and Aquaculture (INIAP)		(see ESPOL Subprojects)				
6. Cereals Prog. (INIAP)	F	Long-term		903.7		
7. COMSA (INIAP)	A	Requested but not approved	Degree/US	565.0 ^c	633.6	
8. PITALPRO (UTA)	B	Title XII Short-term	Degree/US Short courses		416.7	

^aUp-dated version of Subproject Portfolio found on Table 3 (pp. 28-33) of Project Paper Amendment (Loan Add-on)

^bA = Underway; B = Approved by CONACYT but awaiting AID Letter of Implementation; C = Awaiting CONACYT approval; D = Approved at Profile Level; E = Submitted at Profile Level; F = In preparation for Profile sub-mission; G = No action; H = Not approved by CONACYT.

^cRequested expansion in funding

Table 2 - Status of RTIS Subprojects (Continued)

Project (Level Agency)	Status ^b	Technical Assistance	Training	RTIS	Funds AID	Other
9. Appropriate Technology (CATER)	G					
10. Fish Products (ESPOL)	B	Short-term		250.0		
11. Pisciculture (ESPOL)	B	Title XII Short-term		150.0		
<u>B. Institutional Development</u>						
1. Agrarian Structure (IERAC)	A	Title XII	Short Courses		495.0	
2. Irrigation Support (INERHI)	D				1,436.0	
3. Soil Conservation (PRONACOS)	G	Title XII Short-term				
4. Animal Science (UCG)	G					
5. Guayaquil School Feasibility	H					
6. Natural Resources Planning (CONADE)						
<u>C. Human Resources Improvement</u>						
1. IDAPA (INIAP)	A	Title XII	Degree/US		617.0	
2. Pest Management (INIAP)	G					
3. Rural Youth (4-F)	H					

Table 2 - Status of RTTS Subprojects (Continued)

Project (Level Agency)	Status ^D	Technical Assistance	Training	RTTS	Funds AID	Other
4. Small Farm Extension (MAG)	G					
5. Germplasm (UTM)	A	Title XII Short-term	Short Courses		94.8	
6. Pest Control (UTM)	A	Title XII Long and short	Short Course		219.5	
7. Brucellosis Control (UTM)	A	Title XII Short-term	In-Country		31.0	
8. Small Fishermen (INP)	B	Title XII Short-term	Short Course		295.0	
9. SEAN	A	Private US	Short-term		377.0	

2. Subproject Inputs. The Loan Add-on Amendment contemplates \$4,212,000 in A.I.D. loan funds and \$3,588,000 in grant funds for RTTS subproject financing. Although, it is too early in the project to conduct a detailed analysis of the actual allocation of these funds, it is possible to establish certain trends. First, a substantial amount of this subproject budget has already been committed. Over \$2,460,000 has been allocated to the seven projects fully approved and functioning. Second, the vast majority of subproject funding has been in grant funds, which means that most of this source is committed and the remainder cannot be obligated until the annual A.I.D. appropriation is made for next fiscal year (October 1, 1983). However, since only \$300,000 of subproject funding has been spent thus far, it would be possible to reprogram the existing subprojects to include more loan funds, thereby freeing up already appropriated grant monies for future subprojects.

A third important trend concerns the programming of technical assistance, especially from Title XII universities, into the subprojects. One of the major objectives of the subprojects (see end-of-project status No. 3) is to build strong ties to the international network of agricultural science, and especially to Title XII universities. Once again, it is too early to determine the precise amount and nature of Title XII technical assistance, since it is an integral part of most of the established projects. All of these projects, and those proposed include short-term foreign (mainly Title XII) technical assistance. Several include some long-term Title XII technical assistance. The precise amount of technical assistance and its source has become a point of conflict in terms of the subprojects. The percentage of RTTS funds allocated to technical assistance on the subprojects for which there are data varies between four and forty percent. Given that the overall subproject budget calls for approximately 36 percent of the total to be spent on technical assistance, this would indicate that currently funded subprojects are somewhat under-budgeted for this item, a fact which reflects the disagreement between CONACYT and the University of Florida over the priority to be given technical assistance. More critically, technical assistance has been specified in

terms of individual, rather than institutional, qualifications. As a result, there has been a tendency to limit involvement of Title XII universities, per se.

A fourth trend concerns inputs for training. The Loan Add-on Amendment budgets approximately 30 percent of loan and grant subproject funds for training. This compares with 33 percent allocated for training in the 11 subprojects either underway or awaiting financing. The nature of training called for included both degree programs in the U.S. and short courses in Ecuador, the U.S., or elsewhere. Training in both categories has been initiated.

Fifth, it would appear that inputs in the other categories of subproject support are running higher than contemplated. This may reflect the economic crisis affecting Ecuador, which has required strict control of public spending. Finally, it is important to point out that CONACYT has used some of its own funds to initiate several of the projects, while Florida provided inputs for the formulation of certain subprojects.

In general, we conclude that the project has made substantial headway in channeling inputs into RTTS subprojects. The fact that most of the grant funds have been committed but not yet spent, allows for the possibility of replacing grant funds in existing subprojects with loan funds, and using the released grant funds to support appropriate components of new projects in the future. The major input problem, to be discussed in more detail in Section IV, is the lack of consensus over the amount and type of technical assistance, and especially the role of Title XII universities.

3. Subproject Outputs. With seven subprojects approved, financed, and under implementation the project is well on the way toward realizing the "output" of eight completed subprojects. It is likely that the total number of subprojects realized at the end of the contract in 1985 will be double this number. Although the RTTS project is now 19 months old, many of the subprojects were not initiated until relatively recently due to the initial focus on institutional development of CONACYT. Consequently, progress toward the specific outputs of the subprojects

must be judged on the basis of stated intentions and subjective criteria.

All of the subprojects call for training professional and technical personnel associated with the subprojects or farmers served by them. Some training has already been initiated. For example, the IDAPA subproject is sponsoring two MS candidates at the University of Florida and will sponsor two more in the coming year (all four on RTTS funds). The University of Florida team has also assisted in financing and placing subproject-related personnel with non-RTTS funds. Since the subprojects are in their initial phase, most have not yet succeeded in generating new technologies. IDAPA and COMSA are exceptions as each has improved technologies now being demonstrated. Other subprojects have come into the portfolio with important preliminary research work already well underway (e.g., PITALPRO and ESPOL). The first step for most of the subproject, however, is usually an inventory (or survey) to establish baseline data and uncover existing practices and problems. Data generated by these preliminary studies can and should be used for subsequent projects in the same geographic or similar zones. The SEAN subproject of INEC is explicitly a data-generating project, though all will have data and data-generating capacities. Several of the subprojects (IDAPA, COMSA, PITALPRO, and ESPOL fish products) will generate new technologies. Integral to all is the function of disseminating these or known technologies to small farmer users. Several (e.g. IDAPA) propose to involve their clientele actively in technology generation and dissemination.

At the midpoint of the project, it should be possible to observe quantitative indicators of subproject outputs. At the end, it may even be possible to link these outputs to changes in agricultural production and rural incomes. At present, the evaluation team feels that all subprojects are moving in the right direction, but there are only a few subprojects where some of the anticipated outputs can be observed.

4. Subprojects and Project Purposes. The subproject component of RTTS is designed to contribute to overall project goals in two specific areas: (1) strengthening and articulation of rural research,

education, and extension institutions to better serve the sector; and (2) developing and disseminating technologies appropriate for small farmers and agriculture in general. According to the objectively verifiable indicators specified as end-of-project status in the Project Logical Framework (Appendix C), more progress has been made toward the first project purpose than the second. All of the subprojects approved thus far are well integrated into their executing agencies and most have established formal working relations with other relevant public (but not private) institutions. Furthermore, the executing agencies have committed internal funds and staff to their subprojects, although the current fiscal crisis facing Ecuador may undermine the ability of the executing agencies to fulfill these commitments. Considerably less progress has been made in building strong linkages between U.S. Land Grant universities and Ecuadorean institutions. This is an issue to be discussed below.

IV. ISSUES AND PROBLEMS

This Section discusses the problems which are constraining progress toward project purposes. The following six problems have been identified by them as principal constraints in greater progress:

1. Conceptual: Fundamental differences of opinion between CONACYT and A.I.D.-Florida-Executing Agencies concerning the role of Title XII universities and U.S. technical assistance.
2. Procedural: The process for approval of subprojects, and for disbursement of funds is not clearly defined, understood, or followed with no consensus as to the "rules of the game".
3. Fiscal-Legal: There are differences of opinion over the fungibility of loan and grant funds, a funding constraint that has already delayed subproject implementation, and narrow legal opinions are restricting project flexibility.
4. Communication: There is inadequate and inefficient communication among the various participants in the system with increasing levels of interpersonal conflict.

5. Compliance with Conditions Precedent: Three conditions precedent to the Loan Agreement have not been met, which, in one case has severely limited progress.
6. Institutional Performance and Roles: The three principal institutions in the project (A.I.D., CONACYT, and Florida) can improve their performance by clarifying their respective roles, duties, and responsibilities.

Independent Evaluators' Consensus on Problems

1. Conceptual: CONACYT has a substantially different interpretation of the role and importance of Title XII of technical assistance in the project, than does AID, the University of Florida advisors, and Ecuadorean agencies executing subprojects. The four CONACYT staff interviewed by the Evaluation Team all made essentially the same points:

- It is CONACYT "policy" to use first Ecuadorean advisors for technical assistance in the subprojects, then qualified personnel from other Latin American countries, and finally, advisors from the U.S. (Note: This "policy" has not been reduced to writing).
- The cost of technical assistance from the U.S. is a major reason for the focus on Ecuadorean or other Latin advisors.
- CONACYT would like to try and negotiate lower salaries and perquisites for U.S. advisors.
- A directory of locally available technical advisors is needed as a basis for identifying technical assistance for subprojects.
- The requests for foreign technical assistance from executing agencies are not, in many cases, really necessary.
- Florida spends too much time looking for foreign technical assistance and too little trying to look for domestic T.A.

On the other hand, A.I.D., Florida, and several of the Ecuadorean institutions defended the use of foreign technical advisors. The following points were made in interviews with these institutions' representatives:

- The project has as one purpose to develop linkages among Ecuadorean institutions and between Ecuadorean institutions and Title XII universities which will endure beyond the life of this project. This is clearly set forth in both the Project Grant and Loan Agreements as one of the conditions to be realized by the end of the project.
- Domestic technical advisors should not be substituted for foreign technical advisors, but are complementary to them as counterparts. Domestic advisors may be used in the project in lieu of U.S. advisors only if this leads to a strengthening of ties among Ecuadorean institutions and U.S. Title XII Universities (A.I.D.). Subprojects which do not require technical assistance from a Title XII university should not be funded under RTTS (A.I.D.).
- The search for technical assistance initially should be in terms of Title XII universities with special competence, not for individuals (given the goal of developing and strengthening institutional linkages).
- The University of Florida was contracted by A.I.D. with CONACYT concurrence to provide assistance to CONACYT to develop the RTTS and to provide technical assistance to selected subprojects on the basis of special institutional competence at Florida.
- The task order feature of the contract was approved by A.I.D. as a basis for quickly contracting technical assistance from other Title XII universities when they have a comparative advantage over Florida in assisting some subprojects.
- The Project Agreement requires that most of the technical assistance will be provided by Title XII universities with the task order under the Florida Contract as the mechanism.
- Foreign advisors have been very productive when care was taken in their selection. Ecuadorean specialists with the experience and training to provide the technical assistance needed for our subprojects are not available. We believe we are in a much better position to judge our technical assistance needs than CONACYT (INIAP).

Our review of the Project Agreements leads us to conclude that a fundamental and basic characteristic of the Project is the clearly stated requirement to link Title XII universities to Ecuadorean agencies through provision of technical assistance and training. The CONACYT "policy" is a conceptualization, which, if continued, will not lead to strong, enduring linkages between Ecuadorean research, extension, and education institutions serving agriculture, and U.S. Title XII universities, thus frustrating one of the basic purposes of the project. Selection criteria for subprojects should include the need for technical assistance from Title XII institutions. Projects which do not need technical assistance should not be financed under RTTS subproject funding.

2. Process and Procedures: The process for the approval of subprojects, and for disbursement of funds is not clearly defined, understood, or followed, with no consensus as to the "rules of the game". If there is one evident fact that emerged from the evaluation, it is that every institutional participant had different views and interpretations about the process and procedures for subproject development, approval, and funding. The confusion and uncertainty about process is compounded by the differences of opinion about the role of technical advisors and Title XII universities (discussed above) and the differences of opinion about the effect of several different Ecuadorean laws as they affect procedures and process.

The most common question raised by almost every participant and the evaluators during the evaluation was "who is in charge--who makes the final decision?" This suggests, strongly, that there is confusion over roles and relationships of the various institutions which are involved. While the procedural model set forth in the Project Agreement seems clear and straight forward, there are major communication and role problems in actual practice.

The process for approval of subprojects in the RTTS project is comprised of two basic steps: (1) approval of the substance of the proposed subproject; and (2) the disbursement of funds. The approval of the substance of the project is further divided into initial approval of a subproject "profile", and then final approval of a more complete description of the proposed subproject in a subproject paper. At each step, both CONACYT and

A.I.D. must give approval (with technical assistance and advice from Florida) in order for the subproject to advance and be funded.

Once the subproject is fully approved, then the second basic step--disbursement of funds--takes place. The usual process for disbursement of funds is for A.I.D. to send a letter of implementation to CONACYT which permits the commitment and disbursement of loan or grant funds (which have been provided previously to CONACYT by A.I.D. in the case of grant funds or the Central Bank in the case of loan funds). CONACYT then executes an agreement with the implementing agency and provides them with funds. A.I.D. funds (in Sucres) are released directly to CONACYT, while Dollar funds are provided for services, equipment, etc., procured by the University of Florida under task orders or subcontracts.

The opportunities for misunderstanding and subsequent deviation from the prescribed procedures and process are great. This derives from the relatively large number of institutional actors (A.I.D., CONACYT, Florida, the Executive Agency); different sources of funds each with somewhat different rules and regulations (A.I.D. loan, A.I.D. grant, CONACYT program and counterpart, and Executing Agencies counterpart); and the juxtaposition of Ecuadorean, U.S., and Florida laws and administrative procedures.

Several problems have arisen which suggest the process is not functioning smoothly.

First, there seems to have been a substantial change in recent months in the approval process for subprojects. The subproject Technical Evaluation Committee included (at one time) A.I.D., the University of Florida Chief of Party, and CONACYT's Dirección Ejecutiva (D.E.). (The Dirección Ejecutiva of CONACYT is comprised of the Executive Director, the Heads of CONACYT's five Divisions and the legal advisor.) This ad hoc committee, which reviewed and approved subprojects at the "profile" and subproject paper stages, seemed to function quite well and filled a basic communication need. As a result of this close communication, formal A.I.D. and CONACYT approval of subprojects at the "profile" and project paper stages were pro forma.

A.I.D. and Florida have not participated in recent meetings of the Technical Review Committee on very narrow legal grounds that CONACYT decisions regarding subprojects cannot include individuals outside the organization. As a result, A.I.D. and Florida did not participate in the final decisions to approve two subprojects with the ESPOL, or one with the INP.

Moreover, it appears that A.I.D. has serious reservations about the INP project. This change in process ignores the obvious need for CONACYT to consult with A.I.D. and the technical advisors in deliberating its final decisions. Unfortunately, no alternative communication devices were set up, and a vital communication linkage is now missing.²

Second, CONACYT appears to be taking decisions on the basis of very technical and detailed project elements, which are best left to the executing agencies. This viewpoint was expressed by several of the executing agencies. This undoubtedly reflects their frustration at having to deal with another layer of bureaucracy. Similar concerns also were expressed by A.I.D. and Florida personnel. While somewhat preliminary, there appears to be some substance to concerns about CONACYT involvement in subproject details.

In an abstract model of administration, top management (the Dirección Ejecutiva) would set policy and develop overall plans. Within these plans and guidelines, technical offices (such as RDD) would develop projects and programs. Administrative review by the D.E. of such proposals would be to assure consistency with policy and ordinarily would not "second guess" technical recommendations made by staff, especially when such projects and programs have been developed in close collaboration with other independent agencies which have claim to great depth and breadth in the technical areas comprising the program (such as INIAP). Yet, the D.E. has overridden such recommendations on at least two occasions, ostensibly for legal reasons. The comments

²During the course of the evaluation, CONACYT told us it had decided to invite A.I.D. and Florida advisors to attend their final project meetings, as guests, since obvious communication gaps have resulted from their absence.

from several representatives of executing agencies suggest, however, their suspicion that the underlying philosophy of preference for Ecuadorean technical assistance is at the root of these decisions. These parties felt that if there were the will in CONACYT, a way could be found to overcome the legal obstacles.

Two other facts are germane to D.E. involvement in technical decisions. First, the general policy for program development and priorities for selecting among subprojects have not been yet fully developed, so the D.E. really has little basis for its deliberations. Concomitantly, the RDD has not been fully staffed, and is not capable of carrying out the requisite staff work. As a result, Florida has had to step into the gap and do the staff work for RDD.

In this environment, it would be natural for the D.E. to take a more active interest in project details. D.E. clearly has little confidence in its understaffed RDD. D.E. members have expressed concern that Florida is too overly concerned with "selling" foreign technical assistance, and that executing agencies are too used to blindly accepting such technical assistance. Also, without broad policy guidelines to judge among projects, they are forced to make policy on an ad hoc basis, project by project, with their unwritten policy regarding foreign technical assistance exercising a strong influence on their decisions regarding subprojects.

The managers of two subprojects indicated that CONACYT's unexpected denial of requests for technical assistance had set back their subprojects substantially (more than a year in one case). The University of Florida indicated it had lost credibility with other Title XII universities as staff recommendations were reversed.

Third, there has been a tendency to skip some of the sequential steps in the approval or disbursement process. For example, CONACYT recently signed an agreement with INP and provided them with \$600,000 of CONACYT funds, with the agreement indicating that RTTS (A.I.D.) funds would be forthcoming. A.I.D. has not yet issued a letter of implementation which ordinarily precedes the agreement. Yet A.I.D. funds have been, de facto, committed. More critically, in this case, A.I.D. has not given its approval to the subproject paper and has expressed grave reservations about the substance of the subproject to the evaluation team.

Fourth, there have been misunderstandings about the availability of funds for subprojects.

In one case, A.I.D. did approve the PITALPRO subproject paper and CONACYT went ahead and signed an agreement believing that A.I.D. funds were available, when the grant funds had been exhausted. CONACYT lost face in the process since rather elaborate signing ceremonies were carried out and the approval process must be completed a second time. Several other examples could be cited of failures and problems in the process.

It is clear that procedures and process must be streamlined and simplified, with requisite sequential steps clearly specified in order to improve the capacity of the RTTS to carry out its role. These problems of process and procedure obviously will require some structured dialogue (probably under A.I.D. auspices). Clear definition of institutional roles and process first will require, however, a consensus on the more basic issue of project philosophy regarding the use of Title XII universities to provide technical assistance, and the role of Florida in accessing such support. This latter problem is at once more important and fundamental.

3. Fiscal-Legal: A funding constraint has already delayed subproject implementation; there are sharp differences of opinion over the fungibility of loan and grant funds; and narrow legal opinions are restricting subproject flexibility. The implementation of four approved subprojects is being delayed because of a funding constraint. The original project provided grant funds of \$4.3 million over the life of the project for the funding of subprojects, and \$1.0 million for the institutionalization of the RTTS. These funds were augmented later by a loan of \$5.0 million. Grant funds are made available by A.I.D. each fiscal year and only .7 million has been obligated through FY 83. While the loan was signed in July, 1982, loan funds have not yet been released to CONACYT by the Ministry of Finance due to internal delays.

To date, almost all of the obligated grant funds have been committed to seven subprojects, which have been fully funded for the life of each subproject. Less than \$60,000 of grant funds remain, and loan funds are not yet available, so no new projects can be started until loan funds become available, or until more grant funds are provided by A.I.D. for FY 84 (sometime after October 1, 1983).

There is, however, a difference of perception and opinion on how loans and grant funds should be used and their fungibility, which could sustain the funding constraint, if not resolved. CONACYT clearly sees the loan funds as having fewer strings attached, and much more under their control. (A.I.D. has proposed that the Grant Agreement be amended to incorporate the greater flexibility that the Loan Agreement provides in certain respects, but CONACYT has not accepted the amendment.). More importantly, CONACYT feels that loan funds cannot be reprogrammed to finance subprojects already operating with grant funds (thus, freeing-up grant funds for other purposes). A.I.D. and Florida, on the other hand, see loan and grant funds as fungible to a large degree.

The project loan agreement suggests that loan and grant funds are fungible. For example, certain items (training, equipment, materials, and vehicles) that were grant funded in the original grant agreement are loan funded in the new loan agreement. (The Loan Agreement reiterates the preference that T.A. be grant funded.). Also, the loan agreement shows \$1.7 million of grant funds for RTTS instead of \$1.0 million, and only \$3.6 million of grant funds for subprojects instead of \$4.3 million. This shift can only happen, of course, if loan funds of \$.7 million are used to fund subprojects, in order to free up grant funds of \$.7 million to be shifted to an expanded RTTS activity. Moreover, the Loan Agreement provides an additional \$.8 million for RTTS, and \$4.2 million for subprojects, suggesting that loan and grant funds are fully fungible. The Amendment to the Project Paper makes it clear that this is exactly what was intended.

At least a part of the problem is a set of narrow legal opinions which have led CONACYT to view the loan funds as not being fungible, and which will undoubtedly limit flexibility in implementing subprojects. One example occurred during the evaluation when we were informed that vehicles could not be purchased with the loan funds. Upon investigating this point, it was discovered that this interpretation was incorrect. (One condition precedent is a legal opinion from Ecuador's Attorney General, that all the terms of the Loan Agreement are legally binding. Included in the financial plan are line items for equipment, materials, and vehicles in both the RTTS and subprojects. Since the condition precedent has been met, one can conclude the Attorney General's legal opinion is binding.)

The viewpoint was also expressed by CONACYT that it did not have to continue with Florida under the loan if it chose not to, since Florida had been contracted under the grant. Finally, mention has already been made of the exclusion of A.I.D. and Florida from subproject review meetings, again on the basis of narrow legal opinions.

4. Communication: There is inadequate and inefficient communication among the various participants in the system, with increasing levels of interpersonal conflict. The "communication" problem is clearly a symptom of the more fundamental problems discussed above, rather than a basic problem per se. The evaluation team did not encounter a "problem" individual, which occasionally explains differences of opinion between A.I.D., host government institutions, and contractors in some projects. To the contrary, we found highly competent and motivated people of good will who had made significant progress in implementing a complex project.

The set of problems discussed above has resulted in highly varied sets of opinions about basic project parameters. More critically, the level of emotion associated with these differing viewpoints is clearly on the rise among people associated with all principal institutions involved in the project including RDD, CONACYT's D.E., Florida, A.I.D., INIAP, and INEC. While all of the debate to this point has been at a very professional level (as far as we know) it is possible that in some cases it could degenerate to a more emotional, value-laden level, if the basic problems discussed above are not resolved.

5. Compliance with Conditions Precedent and Special Covenants: Two conditions precedent and two special covenants to the loan add-on have not been met, which has seriously constrained progress of the project.

a) Conditions Precedent:

- ". . . CONACYT will . . . furnish . . . selection procedures and criteria and operation procedures for the Small Subprojects Account and for the Private Sector Research and Development Account";
- ". . . CONACYT will . . . furnish . . . evidence that CONACYT has issued a set of priorities consistent with national development goals, for use

in ranking subprojects to be funded under the project . . ."; and

b) Special Covenants:

- "The Borrower covenants . . . that it will provide the Rural Development Division of CONACYT with . . . five additional professionals by January 1, 1983, one additional staff member by September 30, 1983, and will maintain the minimum staffing level of eight professionals through the remaining life of the project . . .";
- "The Borrower covenants . . . that it will provide to A.I.D. by February 15th of each calendar year . . . an implementation plan . . ."

The failure of the GOE to meet these Conditions Precedent and Special Covenants has seriously restricted the institutionalization of the RTTS system. Most critical are the failures to develop a set of priorities for ranking subprojects; and to fully staff the Rural Development Division of CONACYT.

The absence of a set of priorities for selecting among subprojects has resulted in an ad hoc approach to selection of subprojects. Some preliminary work on a national set of priorities has been done by an IICA advisor with some assistance from Florida. This is inadequate, however, and immediate efforts should be made to move this forward. We would observe, with hindsight, that Florida should have spent more time on this activity and somewhat lessen subproject development.

The failure of the GOE to bring RDD to the indicated staff levels is a major constraint to progress. Florida can not train counterparts if they are not there. Moreover, the Florida team has had to step in and carry out the work of RDD in order to move subprojects along. The lack of staff in RDD effectively precluded Florida from focusing on priorities and has made their working relationships with CONACYT more difficult. We recognize the severe fiscal constraints facing the GOE. Nevertheless, this project can not achieve its purpose of institutionalizing the RTTS without the RDD being adequately staffed.

Also, we believe the failure to meet these conditions precedent and special covenants has resulted in a complex series of cause-and-effect interactions among

CONACYT's Dirección Ejecutiva, the RDD/CONACYT, the University of Florida Technical Assistance team, various GOE executing agencies (such as INIAP), and A.I.D. The net result has been to confuse the ideas and responsibilities of the various institutions in the RTTS system, and slow progress toward a self-sufficient RTTS system.

The CONACYT has developed and approved a set of selection procedures and criteria for the small subprojects account and private sector R&D activities. These however, have not yet been submitted to A.I.D. Also, the annual implementation plan for FY 83 has not yet been developed.

6. Institutional Performance and Roles: The performance of the three principal institutions in the project (A.I.D., CONACYT, and Florida), while reasonably good, has been constrained by failure to clearly define the division of labor among them, and by a tendency to overlapping jurisdictions in the execution of their duties and responsibilities. In our judgement, the three principal institutions have performed reasonably well in this project. One has to give CONACYT relatively high marks in terms of its development of a procedure for developing subprojects and its evolving network of relationships with Ecuadorean institutions serving agriculture. This is especially noteworthy given its tender age.

Yet, CONACYT also has evidenced its immaturity especially in its tendency to become overly involved in the technical details of subprojects, and its penchant for using narrow legal opinions to advance conceptual positions held by its staff. Finally, it has evidenced a limited understanding of the basic purposes of the project, and especially of the role of Title XII universities in the project.

Florida has done yeoman service in helping CONACYT to realize the success they have had. Florida advisors have done most of the basic staff work of the RDD to set up the procedures, criteria, and process for subproject selection. In addition, Florida advisors have worked diligently to help CONACYT develop the eight subprojects which are now approved, and the others which are in the process.

While Florida also has helped to focus some effort on the issue of priorities, it has been too little effort

in relation to the focus on subprojects. Florida, rather than A.I.D., has been the institution which has attempted to make the case for U.S. technical assistance from Title XII universities. Since Florida's contract calls for them to provide at least 60 percent of the technical assistance, they can not argue for the Title XII philosophy (which is basic to the project in the context of individual subprojects) without appearing to be self serving. With hindsight, Florida probably has been too involved in trying to "sell" the basic project concepts and may have even gotten some backlash from this effort.

Finally, A.I.D. has been actively involved in the implementation of the project (as called for in the project) especially in the development of subprojects. A.I.D.'s proactive involvement in this process is a major reason why so many subprojects have been developed and approved.

While A.I.D. has also worked with CONACYT regarding the broader project parameters, it appears to us that much of the effort was left to Florida. It seems that A.I.D. should have focused more of its involvement on helping all the participating institutions to understand the purposes and processes of the overall project. Furthermore, doing this on a more assertive basis and in a global context may have reduced misunderstandings and misperceptions about use of Title XII technical assistance procedures, fungibility of loan and grant funds, and the importance of conditions precedent. In short, A.I.D. appears to us to have been too heavily involved in the subproject details with too little attention to articulation of broad project purposes.

V. CONCLUSIONS AND RECOMMENDATIONS

This Section presents the conclusions and recommendations of the Evaluation Team. The format is to (first) briefly state the problem; (second) present our conclusions; (third) indicate the reference or basis for our conclusion; and (fourth) present our recommendations. Each of the six problems discussed in Section IV is considered in turn using this format.

1. a. Problem

Conceptual: Differing philosophy and conceptualization of role and importance of Title XII technical

assistance between CONACYT and Executing Agencies-A.I.D.-Florida.

b. Conclusion

All documentation indicates that Title XII universities are to be the principal source of technical assistance and training to executing Ecuadorean REE agencies. For example, the Loan Agreement (Annex 1, page 2) states: "It is expected that CONACYT will serve to provide Ecuadorean institutions with a continuous supply of agricultural technical expertise from U.S. Title XII agricultural universities as well as from other sources of technical cooperation".

c. References

Project Paper; Project Paper Amendment; Grant Agreement; Loan Agreement; Interviews.

d. Recommendations

1. A.I.D. take the lead in convening a series of meeting with CONACYT's Dirección Ejecutiva and representatives of various executing agencies, with the objective of explaining the basic purposes of the project, and the principal role that Title XII universities are to play in providing technical assistance.
2. The selection criteria for subproject selection should be amended to include the need for technical assistance from a Title XII university or international or regional agricultural research center. Projects which do not need such technical assistance as a major element of the project should be accorded low priority for RTTS funding.
3. RDD should develop, with Florida assistance, a catalog of Title XII university resources which can be of greatest use to REE institutions in Ecuador.
4. CONACYT's Executive Director, and other members of the Dirección Ejecutiva should visit the University of Florida, and other selected Title XII universities as soon as possible in order to gain a greater appreciation of their capacity to help Ecuadorean agriculture.

5. In the event that A.I.D. and CONACYT determine the basic purpose of the project should be modified to reduce or limit Title XII university involvement, the Mission should prepare a formal amendment with full A.I.D. Washington and BIFAD review. Such a change can not be made without altering in a significant and substantial manner the basic purpose of the project, which can not be done without proper review.

2. a. Problem

Process and Procedures: The subproject approval and fund disbursement process is not clearly defined, understood, or followed with no agreement as to the "rules of the game".

b. Conclusions

Changes in the approval process restricting A.I.D. and Florida participation have severed vital communication linkages, and executing agencies are miffed at apparent CONACYT intervention in technical subproject parameters. Some of the sequential steps in the project approval and fund disbursement process have been skipped and commitment of funds made without concurrence of all parties. There is confusion and uncertainty as to exactly what the process is, and the roles and responsibilities of each party.

c. References

Amended Project Paper, Loan Agreement, Interviews of Evaluation Team

d. Recommendations

1. A.I.D. convene a meeting with CONACYT and Florida at the staff level to identify and define the various steps in the process--their logical sequence, and the roles and responsibilities of all participating institutions.
2. RDD Staff with Florida assistance develop a staff report with a sequential check list of steps and institutional assignments, including inter-institutional committees, or meetings that are required.

3. A.I.D. and CONACYT formally adopt the revised programming process and use it as a guide for all future subproject applications.
4. A.I.D. and Florida participate in all final CONACYT deliberations on an ex-officio or even informal basis to assure adequate communication.

3. a. Problem

Fiscal-Legal: A funding constraint now exists; there are sharp differences over the fungibility of loan and grant funds, and narrow legal opinions are restricting subproject flexibility.

b. Conclusions

The funding constraint is more artificial than real if A.I.D. and CONACYT can agree that grant and loan funds are fungible, or that subprojects do not need to be fully funded at the outset. The Loan Agreement and Amended Project Paper are clear that loan and grant funds may be used interchangeably for subprojects, and for certain line items in the budget. Legal opinions in some cases have been inconsistent with opinions of Ecuador's Attorney General as required in the Loan Agreement's conditions precedent. These narrow opinions have served to thwart project progress rather than enhance it.

c. References

Loan Agreement; Interviews; Amended Project Paper

d. Recommendations

1. The funding constraint should be removed by:
 - a) Taking some grant funds from the seven fully funded subprojects for new starts and replacing those funds with either loan funds, or with grant funds as appropriations are received in future fiscal years; or
 - b) Using loan funds for new starts, and for the expanded RTTS if loan funds can be released in a timely manner.

2. A.I.D. should, at the earliest opportunity, review the Loan Agreement with CONACYT's D.E., in order to explain the fungibility of loan and grant funds, and what was agreed to by Ecuador in signing the loan agreement. A.I.D. must clarify the misunderstandings on this point if the project is to progress, and this must be dealt with directly.

3. CONACYT's legal counsel should confer with his A.I.D. counterpart in reviewing the basic parameters of the loan agreement. We recommend a more proactive kind of participations with an attitude of finding ways to get the job done, rather than the approach we have observed.

4. a. Problem

Communication

No specific recommendations are made here for improving communication. If the recommendations made in the other problem areas are followed, it is our opinion that the "communication" problem will disappear.

However, we do note that there are some interpersonal conflicts which are on the rise, and these are cause for concern. In some cases, hard feelings have been detected which could flare into open discord, if the basic problems which are driving this friction are not removed. We assume that all those who are so closely involved are aware of this problem, so we have chosen to raise it in a general way here. It should be pointed out, however, that "personality differences" are not perceived by us as a basic problem, but rather a result of the more fundamental problems.

5. a. Problem

Compliance with Conditions Precedent: Two conditions precedent and two special covenants to the loan add-on have not yet been met.

b. Conclusions

1. The selection procedures for small subprojects and private sector R&D were prepared by Florida

at CONACYT's request and were approved internally by CONACYT, but have not been forwarded to A.I.D. to satisfy the condition precedent.

2. The failure to staff the RDD in a timely manner has been a major obstacle to institutionalization of the RTTS, especially with regard to training people in RDD.
3. The development of a set of priorities for ranking subprojects has not been completed in a timely manner, and the paper completed with IICA help is only marginally adequate for the purpose of setting priorities. Consequently, CONACYT does not have an overall conceptual approach for RTTS.
4. CONACYT has not provided an implementation plan for CY 83 as required by February 15 which has made forward planning very difficult.

c. Reference

Loan Agreement, quarterly reports

d. Recommendations

1. CONACYT should take immediate steps to satisfy this condition precedent regarding small subprojects and private sector R&D. Since the criteria and procedures have been developed, this should be essentially a proforma process. CONACYT had 180 days from the date of the loan agreement (July 19, 1982) to meet this C.P. The deadline was January 19, 1983. This appears to be due to an administrative lapse in RDD.
2. CONACYT should review the "priorities" document prepared with IICA assistance to determine if it is adequate to meet the C.P. of the loan. If not, CONACYT should request an extension of the deadline. The deadline for satisfying this C.P. is March 1, 1983.
3. CONACYT, with Florida assistance, should undertake immediately a major effort to carry out the analysis necessary to develop a set of criteria and priorities for selecting among subprojects in order to strengthen the IICA study.

4. CONACYT should continue its efforts to augment its RDD staff. The recent addition of one professional is a good sign, but still five short of the level required as a special covenant in the loan agreement. This due date for having the five additional staff members on board was January 1, 1983. The importance of complying with this special covenant can not be overemphasized, since institutionalization of RTTS depends on the training of this staff group. The failure of CONACYT to meet the C.P.'s and the Special Covenants reflects this lack of manpower.
5. CONACYT should immediately prepare its implementation plan for CY 1983, with Florida assistance.

6. a. Problem

Institutional Performance and Roles: The principal institutions in this project do not have a clear division of labor among them, with a strong tendency to overlap into each other's work in the execution of their duties and responsibilities.

b. Conclusions

1. CONACYT -- has a strong tendency to "second guess" the technical recommendations of its staff, Florida, and executing agencies. Also, CONACYT has a very limited understanding of the basic purposes and objectives of the project, and of the role of Title XII universities.
2. Florida -- has not focused enough on the development of priorities and the "macro" elements of the RTTS, with too much emphasis on subprojects. Also, Florida has been too heavily involved in trying to "make the case" for Title XII, which has damaged their credibility.
3. A.I.D. -- has been too heavily involved in subproject detail, with too little effort devoted to articulation of the broad project purposes and processes. A.I.D. should have spent more time in helping to develop a consensus on the purposes of Title XII, the fungibility of loan and grant funds, and the importance of conditions precedent.

c. References

Interviews; Project Documents--especially Loan Add-on; Project Reports.

d. Recommenations

Florida. The existence of the "communication" problem suggests the need for a more relaxed posture on the part of Florida as regards articulating and interpreting the basic purpose and nature of the project to CONACYT, at least in the immediate future.

Florida should concentrate its efforts on assisting CONACYT to develop a priorities paper which clarifies the sequential steps in the subproject approval, and fund disbursal process; and on subproject development and implementation. Florida should leave to A.I.D. the task of developing a consensus on broad project objectives (especially Title XII technical assistance), for it can not attempt to do this without giving the clear impression of self interest, especially in the current environment.

We also recommend that Florida's Chief of Party be assigned as advisor to the Director of CONACYT to serve as his counterpart, with the other Florida advisors to serve as advisors to the RDD chief.

A.I.D. A.I.D. needs to take a much more assertive role in developing a consensus concerning broad project objectives, and the roles and relationship of the various institutions. A.I.D. must take the lead in developing a consensus regarding Title XII technical assistance, and the use of loan and grant funds, and act as the catalyst in helping to clarify and codify the process and procedures for subproject approval, and disbursal of funds.

In the same way, A.I.D. should continue to follow up on GOE compliance with conditions precedent and special covenants, because Florida will have similar difficulties in attempting to manage this for A.I.D. In short, there needs to be a much clearer division of labor between Florida and A.I.D. regarding project implementation.

CONACYT. CONACYT should concentrate its efforts on meeting its conditions precedent, and developing its

"priorities" paper. CONACYT should be very careful, when evaluating subprojects, to clearly understand the rationale underlying the specification of technical assistance and training. Executing agencies such as INIAP obviously have much more experience and basis for their proposals than has CONACYT in rejecting these requests. When legal grounds are cited as the basis for such interventions, the Executing Agencies are, understandably, skeptical, CONACYT's credibility as an objective entity is eroded, and the institutionalization of the RTTS is jeopardized.

Once CONACYT has developed its priorities and policy, we recommend that the D.E. only check to assure that subprojects are consistent with policy and not "second guess" technical specifications unless they are clearly inconsistent with policy.

Annex A

TERMS OF REFERENCE OF RTTS EVALUATION

Pursuant to the agreement, it is necessary to carry out regular evaluations of the RTTS Project in terms of progress achieved toward meeting proposed goals as well as problems encountered and possible solutions.

Eighteen months have elapsed from inception of this four-year project, and a first evaluation is deemed necessary at this point. Even though progress has been satisfactory, there still are certain mechanisms to be established, certain criteria to be defined, and certain aspects to be polished before achieving optimal operation. Therefore, an internal evaluation with participation of the interested parties (CONACYT, USAID and the University of Florida) may be convenient at this time. The purpose would be to make an overall review in some instances and specifically evaluate other aspects within the general progress of the project; identify possible problem areas which may influence implementation of the project; and seek alternate solutions. It is worth pointing out that these solutions should fit within the context of current situation and future perspective of activities as well as within the scientific and technological infrastructure of the country.

Taking these needs into consideration, the following terms of reference are proposed for the evaluation:

Three basic elements of the RTTS Project should be included in this first evaluation: The project per se, the institutional aspects, and available mechanisms; these three elements include the following activities and derivations:

I. The Project.

1. General Progress. Three main activities should be evaluated:

- a. Support and contribution to policies and to the national system for science and technology. Make an objective evaluation of the support which the RTTS is giving to the mandate of CONACYT, particularly with respect to implementation of science and technology policies for the rural sector. Assess contribution of the project toward strengthening the national system for rural science and technology and determine how this contribution may be improved.

b. Institutionalization of RTTS. Evaluation of this aspect should include progress achieved in the following activities:

- i) Definition of mechanisms for selecting subprojects.
- ii) Definition of criteria and mechanisms for evaluating subprojects.
- iii) Establishment of mechanisms for follow-up of subprojects.
- iv) Training of local personnel
- v) Interaction and team work among advisors and counterparts.
- vi) Ability to establish contacts and maintain relationships among participating agencies.
- vii) Establishment of communication channels between CONACYT and potential sources of technical assistance.
- viii) Awareness among participating institutions of the importance of an adequate interinstitutional coordination for the good operation of the science and technology system to achieve national development goals.

c. Subprojects

- i) Approved, being implemented. Globally evaluate progress attained toward meeting objectives; comparison of planned activities vis-a-vis implemented activities; disbursement of funds, evaluation and follow up. Training and technical assistance activities, generation and technology of transfer.
- ii) Very specifically, analyze results and evaluate effectiveness in integrating users into the technology system. Analyze possible reasons for this integration or lack of it. Evaluate receptiveness of users toward new technologies as well as of methods used to bring forward this receptiveness. Identify possible failures in the Project or in the system and recommend possible corrective measures.

- iii) Tentative subprojects. Review status of sub-projects under consideration, their possible relationship or coordination with others being implemented and their potential in contributing to the system.
- d. Consistency of objectives. The RTTS was conceived before CONACYT was created. Its goals, objectives and regulations should be evaluated to assure consistency with those of CONACYT, bearing in mind that the latter sets the country's policies with respect to rural science and technology.

II. General Institutional Performance

1. University of Florida.

- a) Long-term technical assistance to achieve project goals. Compliance of administrative and technical aspects by advisors in accordance with scope of work specified in the agreement and critical assessment of same in the light of expectations from pertinent institutions.
- b) Short-term technical assistance. Quantitative and qualitative evaluation of short-term technical assistance in institutionalizing the RTTS as well as in designing and implementing subprojects.
- c) Training. Role toward achieving formal, informal and on-the-job training objectives for the staff of CONACYT and participating agencies.
- d) Adaptability of the University staff in working with CONACYT counterparts in a team. Perception of institutional needs and participation in both general and programmed activities, whether same are related to the RTTS or not.

2. CONACYT

- a) Ability to absorb long-term and short-term technical assistance; attitude and receptivity.
- b) Role in institutionalizing the RTTS, both in terms of capacity, internal management, coordination among participating agencies, and promotion of science and technology activities in the rural sector.

- c) Performance with respect to present and future commitments in providing financial, human and logistic resources necessary for the efficient operation of the project. Analyze circumstances beyond the control of CONACYT which may have influenced its performance.

3. A.I.D.

- a) Role of A.I.D. in coordinating and implementing the project, administrative support.
- b) Role of A.I.D. as catalyst working with the technical assistance team and the local counterpart agencies.

III. Mechanisms of the Project.

1. Adequacy of mechanisms contemplated in the agreement for managing and bringing the project into operation, including ability to respond promptly to the needs of the project and subprojects.
2. Clarity of contract provisions with respect to the different levels of decision, particularly with respect to procedures in providing technical assistance services.

The evaluation team will consist of a representative from CONACYT, a representative from the University of Florida, a representative from CONADE and another member not belonging to any of above institutions.

The evaluation shall be carried out through interviews with CONACYT staff, University of Florida staff, participating institutions and A.I.D.; files of the project should be reviewed, periodical reports studied, and field visits made to the several subprojects.

Time frame for the evaluation is estimated at three weeks, to be distributed as follows: two weeks dedicated to interviews, field work, preparation and discussion of a draft evaluation, and one week for final preparation of the evaluation report. This evaluation shall begin on Monday, January 31.

Annex B

EVALUATION METHOD

This review is the regular annual evaluation as called for in the Mission's Annual Evaluation Schedule. It comprised an overall measurement of progress toward project goals and purposes as set forth in the Project Paper (grant funded), dated 06-09-82. This is the first formal evaluation of the project although a management review was completed in October of 1981 in lieu of the first regular evaluation¹

The review was carried out with the active participation of the GOE. The evaluation panel included:

1. Marco Jaramillo, Consejo Nacional de Desarrollo (CONADE), (outside GOE evaluator, with Luciano Martínez as CONADE alternate);
2. Alfredo Recalde, CONACYT (with Rodrigo Albuja as alternate);
3. Terry McCoy, University of Florida;
4. Morris D. Whitaker, Utah State University (outside evaluator);
5. Vincent Cusumano, USAID

The evaluation was carried out in Quito, Guayaquil, and various field sites during 1-31-83 through 2-11-83. The terms of reference for the evaluation were prepared by CONACYT with assistance from Florida and were adopted by the Evaluation Panel at its first meeting on 1-31-83 (see Appendix A). The Evaluation Panel also adopted the Logical Framework (log frame) as set forth in the Project Paper (PP) as another terms of reference for the project (see Appendix B).

The method of evaluation was a series of loosely structured interviews with individuals and groups associated with institutions involved in the project. The following interviews were held:

¹See the TDY report of Morris D. Whitaker, Title XII in Ecuador: A Status Report, December, 1981.

Monday, January 31

2:00 - 4:30 p.m.

Director of Planning, CONACYT
Alfredo Recalde

Tuesday, February 1

10:00 - 12:30 p.m.

Executive Director, CONACYT
Angel Matovelle

2:30 - 4:30 p.m.

Director of Rural Development,
CONACYT - Rubén Salazar

Wednesday, February 2

9:00 - 12:00 p.m.

Director of Operations, CONACYT
Oscar Aguirre

2:00 - 5:00 p.m.

Advisors, University of Florida
Kamal Dow, Edgardo Moscardi,
Rómulo Solíz

Thursday, February 3

(Field day at subproject sites)

10:00 - 12:30 p.m.

Director, IDAPA/INIAP
Patricio Espinoza

2:30 - 4:00 p.m.

Director, PITALPRO/University
of Ambato - H. Aníbal Saltos

4:00 - 6:30 p.m.

Director, COMSA/INIAP
Gilberto Orbe

Friday, February 4

9:00 - 10:30 a.m.

Director, SEAN/INEC
Guillermo Otañez

11:00 - 12:15 p.m.

Director, INIAP
Julio César Delgado

2:30 - 5:00 p.m.

Rural Development Officer,
A.I.D.
Vincent Cusumano

Monday, February 7

9:00 - 10:30 a.m.

Director, ESPOL/Fish Culture
Marco Alvarez

10:30 - 12:00 p.m.

Director, ESPOL/Food Technology
Luis Miranda

2:00 - 3:30 p.m.

Director, University of
Machala, Insect Control, Native
Germplasm; and Brucellosis
Control - José María Valarezo

Monday, February 7 (continuation)

3:30 - 5:00 p.m.

Director INP/Technology
Transfer -- Small Fishermen
Germán Villalta

Tuesday, February 8

2:30 - 5:00 p.m.

CONACYT
Angel Matovelle, Executive
Director
Jorge Peflaherrera, Finances
Roberto Barriga, Legal Aid

Mr. Jaramillo of CONADE acted as chairman for the panel. During the meeting, each panel member kept notes and points were summarized by the Chair, or other panel members, and recorded. These notes are the basis for the list of issues and problems identified in this report which the panel believes requires A.I.D. and CONACYT's attention. These issues were discussed with the A.I.D. Mission Director and CONACYT's Executive Director in a final Evaluation Review Meeting held on February 11, 1983, in Quito.

Data on progress realized toward end-of-project status and project objectives were also obtained from the various project-related documents. However, given the newness of the subprojects, and the relatively short life of the overall project, most indicators of progress tend to be subjective, based on impressions and evidence verbalized in the various interviews.

The analysis of problems and issues which constrain progress in moving toward project purposes was carried out and prepared by Lic. Marco Jaramillo, and Dr. Morris D. Whitaker, who served as the two outside evaluators on the team. Their findings are presented in Section IV.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY 1982 to FY 1986
Total U.S. Funding \$ 10,300,000
Date Prepared: April 17, 1982

Project Title & Number: Rural Technology Transfer System Project Paper Amendment.-518-0032

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</p> <p>Increase food production, employment, and incomes, and otherwise improve the well-being of the rural poor.</p>	<p>Measures of Goal Achievement: (A-2)</p> <p>Increased productivity, employment, incomes, and improvement in the quality of life for the beneficiaries of the various subprojects, according to the objectives and analyses of the individual subprojects.</p>	<p>(A-3)</p> <p>Baseline and follow-on data on economic and social benefits will be gathered from individual subprojects. The Project evaluations will draw conclusions about the economic and social effects of the projects and from them draw macro conclusions about the economic and social effects of the Project as a whole.</p>	<p>Assumptions for achieving goal targets: (A-4)</p> <ol style="list-style-type: none"> 1. Continuation of the GOE commitment to eliminate rural poverty and to increase agricultural production. 2. A political environment conducive to conducting rural development projects of this nature. 3. No adverse weather or macro-economic conditions.

Best Available Document

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PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

L. In. of Proj. 1982-79 11-781
From FY 1982 to FY 1986
Total U.S. Funding \$ 10,300,000
Date Prepared: April 10, 1982

Project Title & Number: Rural Technology Transfer System Project Paper Amendment. 518-0032

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose (D-1)</p> <ol style="list-style-type: none"> Promote and support the establishment of a Rural Technology Transfer System (RTTS) - a management, administrative, and financial system which can address major sectoral constraints. Strengthen rural institutions so they are able to effectively serve the sector. This includes forming linkages among research, extension and educational institutions, developing a trained human resource base, and improving management and delivery systems and analytic and statistical capacities. Develop and disseminate technologies appropriate to the needs of small farmers and the agricultural sector in general. This includes basic and applied research, dissemination of results, improved policy analysis, and improved program planning. 	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (D-2)</p> <ol style="list-style-type: none"> CONACYT has a functioning mechanism for selecting subprojects in accordance with national science and technology priorities for the rural sector, providing them with technical and financial resources, and monitoring their implementation. Public and private REE institutions which participated in RTTS - sponsored subprojects have integrated the subproject activities into their programs and are providing them with continuing budget and staff support. The information of strong linkages between U.S. Land Grant universities and Ecuadorean institutions for provision of the external TA and training services required for the RTTS and its subprojects 	<p>(D-3)</p> <p>Project quarterly reports and evaluation studies. Also, field trip reports and observations.</p> <p>Conferences of USAID, CONACYT and GOE entities carrying out subprojects.</p>	<p>Assumptions for achieving purpose: (B-4)</p> <ol style="list-style-type: none"> Continuation of the GOE commitment to strengthening the various rural development institutions. The making available by the GOE of sufficient resources to support the Project and to continue the RTTS after the end of the Project.

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PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: Rural Technology Transfer System Project Paper Amendment 518-0032

Life of Project
From FY 1982 to FY 1986
Total U.S. Funding \$ 10,300,000
Date Prepared April 30, 1982

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <p>1. RTTS:</p> <ul style="list-style-type: none"> a. Staff on board and trained b. Subprojects developed and approved. c. Small subprojects approved and funded. d. Private sector R&D activities approved and funded. e. Funds disbursed for subprojects and other activities. <p>2. Subprojects:</p> <ul style="list-style-type: none"> a. Implemented and completed. b. Professional trained. c. Technicians trained. d. Paraprofessionals trained. e. Farmers trained. f. Research activities undertaken. g. Technologies tested. h. Technologies demonstrated. i. Technologies adopted. j. Workshops, seminars, conferences, simposia held. k. Data generating capacity established. l. Studies undertaken on constraint areas. 	<p>Magnitude of Outputs: (C-2)</p> <ul style="list-style-type: none"> 1.a. Eight professionals and supporting clerical staff. 1.b. Five in addition to three previously approved. 1.c. Ten. 1.d. Six. 1.e. At least \$8.3 million including grant funds from original authorization. <ul style="list-style-type: none"> 2.a. Eight. 2.b. through 2.l.: These figures must be aggregated from the objectives of the individual subprojects. 	<p>(C-3)</p> <p>The annual evaluation will look at the progress of the RTTS and at a sample of on-going subprojects. Each individual subproject will be expected to have firm objectives, baseline data, and a budget for collecting comparative data.</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>Achievement of coordination among the various rural sector institutions.</p> <p>A willingness by the various rural sector institutions to participate in the Project and to make the necessary personnel and resources available to carry out the subproject.</p>
<p>5/1</p>			

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: Rural Technology Transfer System Project Paper Amendment, 518-0032

Life of Project:
From FY 1982 to FY 1986
Total U.S. Funding \$10,360,000
Date Prepared: April 30, 1982

NARRATIVE SUMMARY Project Inputs: (D-1)	OBJECTIVELY VERIFIABLE INDICATORS (D-2)		MEANS OF VERIFICATION (D-3)	IMPORTANT ASSUMPTIONS Assumptions for providing inputs: (D-4)
	Implementation Target (Type and Quantity)	(\$000's)		
	Project	518-0032		
	Loan Funds	Grant Funds		
1. <u>AID Funds:</u>				
a. For CONACYT Development			AID and Project financial records, and RTTS quarterly reports.	No undue bureaucratic or technical delays in the provision of the Project inputs.
Technical Assistance	--	1,115.0		
Project Develop. & Supp.	--	450.0		
Training	80.0	--		
Equipment/Materials	118.0	2.0		
Hiring of Project Spec.	20.0	--		
Small Subprojects	200.0	--		
Private Sector R&D	300.0	--		
Inflation	70.0	145.0		
	<u>788.0</u>	<u>1,712.0</u>		
b. For subprojects:				
Technical Assistance	--	2,498.1		
Training	863.6	454.2		
Equipment/Materials	925.7	301.0		
General Support	659.4	28.0		
Inflation/Contingencies	763.3	306.7		
	<u>6,212.0</u>	<u>3,588.0</u>		
c. AID Totals:	<u>5,000.0</u>	<u>5,300.0</u>		
2. <u>Host Country Funds</u>				
a. For CONACYT Development		1,365.0		
b. For Subprojects:				
1) From participating institutions		11,958.5		
2) From CONACYT program funds		800.0		
c. Host Country Totals:		<u>14,123.5</u>		



ADDENDUM CONACYT

This addendum includes the problems that CONACYT staff recognized as affecting the normal development of the RTTS project and the recommendations to improve it. Although not officially approved by CONACYT, it reflects their concerns. This document was submitted to USAID/Ecuador after the First Evaluation was over and the evaluation team had submitted their report.

PROBLEMS AND RECOMMENDATIONS

1. Technical Assistance

PROBLEM

There are differences of interpretation regarding the origin, length and financing of technical assistance.

RECOMMENDATIONS:

CONACYT and A.I.D. have to take the initiative to discuss and overcome these differences taking into consideration the following aspects:

WITH REGARD TO ORIGIN:

This recommendation is based on:

- a) The fact that foreign technical assistance is always complementary to the capacity existing in the country.
- b) The necessity to establish a contracting system which permits the country to operate in terms of: first, the technical capabilities within the country should be considered, then complemented by the technical capacities offered by the Title XII and other institutions. It is suggested, however, that in cases where national technical assistance is used, it always be complemented with short-term technical assistance from the Title XII for the design of subprojects and discussion of results.
- c) Recognizing that technical assistance from Title XII is the principal source of technical assistance, the diversification of sources, noted previously, has cost advantages which benefit the basic objectives of the project, including the requirements of quality for the

technical assistance to be contracted and its adequacy to the specific conditions of the national reality and subprojects needs.

- d) It is necessary that the TA to be contracted, regardless of its origin, have an institutional support and that only as a last case, based on well-founded justification, an individual could be contracted.

WITH REGARD TO THE LENGTH:

- a) The evaluation team has repeatedly discussed this problem in terms of assigning a higher importance to either short and medium-term technical assistance than for the long-term technical assistance.
- b) There is a consensus that desirability preference for one or other type of assistance can not be defined a priori, but only through a clear knowledge of the needs of each particular project.
- c) Experience shows that in certain cases, the executing units prefer long-term technical assistance for convenience rather than for necessity, and also because it does represent a cost to them. Therefore, it is necessary to determine very carefully the length of the term to optimize the use of resources. To correctly determine the term, it is necessary to have an adequate knowledge of the project's nature, which can be widely diverse according to each case, and the establishment of a mechanism to consult with national and international organizations established within the country, the University of Florida and other Title XII institutions. Based on this, the final decision will be taken by CONACYT.

WITH REGARD TO THE FINANCING:

The main point arising from this is that, if the diversity of sources for the TA is accepted, the subprojects contracting technical assistance outside of the Title XII institutions will necessarily have to be financed with project loan funds.

In order to improve TA implementation, the following aspects are additionally recommended:

- a) CONACYT should develop, with the University of Florida assistance, a catalog of universities and other Title

XII institutions for CONACYT's use, in order for them to secure on institutional technical assistance.

- b) CONACYT will have to prepare, with the University of Florida assistance, a catalog of Ecuadorean and Latino-american institutions and experts in order to use complementary technical assistance.
- c) CONACYT personnel (and other Ecuadorean agencies involved in the project) should visit the University of Florida and other selected Title XII universities and institutions, and conversely.

2. WITH REGARD TO THE PROCEDURES:

PROBLEM

The process for approval and financing of subprojects is not clearly defined, understood or applied.

RECOMMENDATIONS

- a) With regard to approval and financing of subprojects, it is necessary that CONACYT and AID clearly identify and define the various process stages, its logical sequence and the roles and responsibilities of all of the institutions and persons involved in the process.
- b) With the results obtained from the previous recommendation, to prepare and disseminate a procedures handbook, being sure that all of the participants know and apply its instructions correctly.

3. On Financial-Legal Aspects

PROBLEM

There are differences of opinion on the use of loan and grant funds as a result of differences of interpretation of the financial-legal aspects. These differences, if not solved, could cause difficulties to the implementation of new subprojects.

RECOMMENDATION

CONACYT and AID shall promote meetings to clarify and define a formula for a convenient utilization of loan and grant funds. These meetings shall count with the presence of representatives of the national organizations involved

in these problems (Attorney General's office, Controller's office, Central Bank, Ministry of Finance, CONADE, etc.)

4. On Fullfillment of Special Covenants

PROBLEM

The special covenant of the loan agreement regarding the contracting of the minimum technical staff necessary for the CONACYT Rural Development Division, has not yet been fulfilled.

RECOMMENDATION

Given the difficult fiscal situation of the country, we recommend that loan funds be used to contract immediately the required counterpart personnel in order that, once the above mentioned problem is solved, the contracted personnel be incorporated as part of the permanent CONACYT staff.

5. On Institutional Effectiveness and Responsibilities

RECOMMENDATIONS TO THE INSTITUTIONS PARTICIPATING IN THE PROJECT

CONACYT

It shall carry out necessary actions to meet the special conditions stated in the Loan Agreement and define a national program and policy for the scientific and technological development, addressed to the agricultural, cattle raising, forestry and fishing sectors.

FLORIDA

- a) It is necessary that the University of Florida clearly organize and define the functions and responsibilities of the Project Support Committee, to benefit the project by the technical and scientific capacity existing in this University and other Title XII institutions.
- b) In implementing the previous recommendation, the mechanism and funds established in the so called "Task Order No. 1 for Project Support" should be utilized.
- c) At the same time, it is recommended to study the possibility of designating and financing a coordinator within the University of Florida to expedite the Support

Committee actions and establish broader interinstitutional relationships between Ecuador and the Title XII Institutions.

- d) It has to give more attention to the "macro aspects" (institutionalization of the RTTS) of the project and to become thoroughly aware of the fundamental aspects of CONACYT role as the leading agency on the national policy for scientific and technological development.

A.I.D.

- a) It has to assume a more active role in clarifying the substantive aspects established in the basic documentation which sustain the Project (legal, administrative, financial, operative aspects).
- b) It is necessary to establish a clearer division of functions and responsibilities between AID and the University of Florida with regard to their intervention in the development of subprojects in order to avoid the duplication of functions.

6. On Communication

PROBLEM

- a) Deficiencies in communication among the various officers of the principal institutions participating in the Project (CONACYT, AID, University of Florida and subproject implementing units) have been detected.

RECOMMENDATIONS

- a) Obviously, the best solution to the principal problems in the project detected by the evaluation team would be to overcome these communication deficiencies. Therefore, the involved institutions should increase in their personal efforts to attain more fluent work understandings.
- b) To achieve this objective, we consider it important to organize regular work meetings and coordination among participant institutions in order to obtain a sound and objective discussion, and solutions to problems which may arise.

LIST OF ACRONYMS

CATER:	Centro Andino de Tecnología Rural (Andean Rural Technology Center)
COMSA:	Conservación y Manejo de Suelos y Aguas (Soil and Water Conservation and Management)
CONADE:	Consejo Nacional de Desarrollo (National Development Council)
ESPOL:	Escuela Superior Politécnica del Litoral (Coastal Polytechnic School)
IDAPA:	Investigación y Desarrollo Adaptados al Pequeño Agricultor (Research and Development Adapted to the Small Farmers)
IERAC:	Instituto Ecuatoriano de Reforma Agraria y Colonización (Ecuadorian Agrarian Reform and Colonization Institute)
INEC:	Instituto Nacional de Estadística y Censos (National Statistics and Census Institute)
INERHI:	Instituto Ecuatoriano de Recursos Hidráulicos (Ecuadorian Water Resources Institute)
INIAP:	Instituto Nacional de Investigaciones Agropecuarias (National Agricultural Research Institute)
INP:	Instituto Nacional de Pesca (National Fisheries Institute)
PITALPRO:	Proyecto de Investigación en Tecnología de Alimentos (Food Technology Research Project)
PRONACOS:	Programa Nacional de Conservación de Suelos (National Soil Conservation Program)
RDD:	Rural Development Division (CONACYT)
SEAN:	Sistema de Estadísticas Agrícolas Nacionales (National Agricultural Statistics System)
SEDRI:	Secretaría de Desarrollo Rural Integral (Integrated Rural Development Secretariat)

UCG: Universidad Católica de Guayaquil (Catholic
University of Guayaquil)

UTA: Universidad Técnica de Ambato (Technical
University of Ambato)

UTM: Universidad Técnica de Machala (Technical
University of Machala)