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SYNTHESES OF EVALUATIONS

AGRICULTURAL DEVELOPMENT RELATED PROJECTS

LATIN AMERICA AND THE CARIBBEAN (LAC)

(1984 - 1987)

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EXECUTIVE SUMMARY

The syntheses contained in this report are taken from thirty-three interim and final evaluations carried out in the field of agriculture and rural development over the period 1984 through 1987. The review represents projects totaling some \$587 million of which \$364 million was provided by AID. They cover such areas as: agricultural production, agricultural credit, agricultural research, agricultural diversification and export, natural resource management, regional development organization and other agricultural and rural development activities.

There is a short introductory section which describes in more detail the purpose and methodology and the organization of the syntheses, and summarizes some of the major conclusions and lessons-learned highlighted in the evaluation reports. It is hoped that these syntheses together constitute a useful management tool, and will provide some useful examples and guidelines to AID officers engaged in design and evaluation.

I. BACKGROUND AND GENERAL OBSERVATIONS

1. Purpose and Methodology

The purpose of this review is to assist LAC/DP/SD in compiling a volume of syntheses of agricultural development project evaluations. The syntheses have been designed to provide information in summary form which will be particularly useful to USAID field missions in designing and monitoring development projects. The syntheses which follow are from thirty-three evaluations carried out over the period 1984-1987 in such areas as:

- o Agricultural Production Increase
- o Agricultural Credit
- o Agricultural Research
- o Agricultural Diversification and Export
- o Natural Resource Management
- o Regional Development Organization
- o Other Agricultural and Rural Development Activities

While the agricultural project syntheses are presented by country and regional activity in this report, Table 1 which follows groups them by major development activity. The grouping in Table 1 is according to the major thrust of the projects, although some of the projects are multifaceted -- for example regional development projects, farming systems research, etc.

The thirty-three syntheses represent \$364 million in AID Life of Project (LOP) financing, and \$223 million of Host Country contributions, making the total value of project evaluations synthesized \$587 million. The syntheses cover twelve LAC countries, ROCAP support and regionally funded activities (RDO/C)*. They cover a varied mix of grant and loan funded projects running from less than one million dollars to \$75 million. All of the syntheses are based on documentation supplied by LAC consisting for the most part external and in-house evaluations done between 1984 and 1987. Evaluations vary from one person spending two weeks in the field to others of four to five persons with four to six weeks in the field. Some evaluations were interim in nature and others were final evaluations.

*RDO/C = Regional Development Office/Caribbean, USAID

TABLE 1

LAC AGRICULTURAL PROJECT EVALUATIONS SYNTHESIZED BY MAJOR AREA OF ACTIVITY

	<u>Page</u>
<u>Agricultural Production Increase</u>	
Livestock Development (505-0006) Belize	7
Chapare Regional Development (511-0534) Bolivia	20
Northern Zone Infrastructure Development (515-0191) Costa Rica	30
Rural Development Management (517-0125) Dominican Republic	34
Community Based Integrated Rural Development (519-0215) El Salvador	48
Goat Production Improvement (521-0181) Haiti	78
Rural Technologies (522-0157) Honduras	89
Small Farmer Production/Marketing (532-0097) Jamaica	115
Managed Fish Production (525-0216) Panama	119
Integrated Regional Development (527-0178) Peru	128
<u>Agricultural Credit</u>	
Credit Union Strengthening (515-0189) Costa Rica	24
Agrarian Reform Credit (519-0253) El Salvador	53
<u>Agricultural Research</u>	
Small Farmer Diversification Systems (520-0255) Guatemala	68
Agriculture Development Support II (521-0092) Haiti	73
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<u>Agricultural Diversification and Exports</u>	
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<u>Natural Resources Management</u>	
Natural Resource Management (517-0126) Dominican Republic	38
Forestry Sector Development (518-0023) Ecuador	43
Natural Resources Management (522-0168) Honduras	100
<u>Regional Development Organizations and Regional Financing</u>	
Agricultural Secretariat (596-0094) ROCAP	159
Regional Integrated Pest Management (596-0110) ROCAP	165
<u>Other: Agriculture and Rural Development Activities</u>	
Rural Access Roads & Bridges (505-0007) Belize	12
Rural Development Planning & Departmental Development Corporations (511-0471, 511-T-64,65) Bolivia	16
Agrarian Reform Sector Support (519-0265) El Salvador	58
Rural Electrification II (520-0248) Guatemala	63
Rural Water & Sanitation (522-0166) Honduras	95
Agricultural Planning & Institutional Development (527-0238) Peru	133

2. The Syntheses -- Organization and Presentation

All of the syntheses have a common format. Each synthesis is divided into five sections:

- A) Summary of Evaluation. Project Purpose/Rationale/Findings; Lessons Learned; Achievements/Inputs/Problems.
- B) Project Rationale. Factors Leading to Project Selection; Constraints; Relative Priority/Mission Objectives.
- C) Project Design. Strategy; Host Country Implementation; Components; Resources; Time Frame/Coordination.
- D) Evaluation Methodology. Team Composition; Host Country Participation; Time Period; Methods; Cost; Support Arrangements.
- E) Major Findings and Conclusions. Validity of Major Assumptions; Input Delivery; Output Attainment; Impact; Contribution toward Planned Goal; External Factors, Unplanned Effects; Lessons Learned.

Answers to all of these categories were not always available or appropriate in all evaluations, but the above listing was used as a check list to assure that all pertinent items were included in the syntheses where feasible.

3. General Conclusions and Lessons Learned

A. Context - Review of the thirty-three agricultural evaluations highlighted the great variety of circumstances, results and lessons learned, making it clear that any general conclusions or lessons learned would have to be considered, not only in relation to the objectives and goals of the specific project, but also within the context of each country's or region's special circumstances, i.e., economic, social, political, technical, physical, and educational. The successful development results or weaknesses encountered, and lessons learned for individual projects were very dependent on the full gamut of personal, political, technical, material and financial resources available and their interaction.

The General Conclusions and Lessons Learned should be used with care, and employed imaginatively -- very much from the standpoint of "adapt not adopt". In addition, in the LAC region, external factors (i.e. depressed economic conditions, restricted mobility, guerrilla activity, considerable risk to personal security resulting in high turnover rates, migration to the U.S. of key local personnel, etc.) have had significant effects on the success of agriculture and rural development projects and on their rate of progress.

B. General Conclusions and Lessons Learned - The following paragraphs list eleven General Conclusions and/or Lessons-Learned drawn from the thirty-three agricultural project evaluations. One or two examples of the projects which fit under the General Conclusions and/or Lessons Learned are listed in each case. It is hoped that this information will prove helpful to those using the report.

1. *Crop Diversification/Export Promotion Must Consider Both Production and Marketing.* - Marketing must go hand in hand with production increases, or else farmers, who have successfully grown the new product, will have the new crop on hand, and no way to market it or to pay back production loans. This is illustrated in Peru's Non-traditional Agricultural Export Promotion (527-0166), and Guatemala's Small Farmer Diversification Systems (520-0253) projects.

2. *Agricultural Research Projects (including in particular Farm Systems Research) Require Strong Association with Extension Services.* - Evaluations in FSR stressed the necessity, in addition to on-station research itself, of vigorous extension and educational work in testing and putting into use improved seeds, production methods, cultivation, pest protection etc. Interaction with the farmers is absolutely essential for success (see Haiti's Agricultural Development Support II (521-0092) and RDO/C's CARDI - Farming Systems and Development (538-0099) projects).

3. *Utilize Organizations Already Functioning.* Generally speaking, projects based on assisting local organizations already functioning have moved along faster than ones starting from scratch. Examples of using existing organizations are found in El Salvador's Agrarian Reform Credit (519-0263), and Costa Rica's Credit Union Strengthening (515-018) projects.

4. *Mixed Loan/Grant Projects Did Well, Considering Complexity of Tasks.* - Projects which had both loan and grant components appeared well-designed and required the support of the government to be implemented. While in some cases final government approval and its meeting of the conditions precedent took some time, once met, those activities moved ahead (Bolivia's Rural Development Planning & Departmental Development Corporations project (511-0471/511-T-64) and Peru's Agricultural Planning and Institutional Development project (527-0238) are cases in point).

5. *Private Voluntary Organizations Can Be Very Effective -- Especially at Community Level.* - Local and International PVOs have been particularly successful in carrying out grass roots projects, e.g., Community Development activities (see El Salvador's Community Based Integrated Rural Development (519-0215) and Jamaica's PFP Small Farmer/Marketing (532-0097) projects).

6. **Most Projects (including those involved with the private sector) Need Full Government Support.** - Where this support was not made available or changes of administration diminished earlier cooperation, projects were delayed. Inaction, such as failure to name country counterparts, release government financing and project counterpart funds, approve new legislation or decrease administrative restraints, caused serious delays. This type of challenge tends to arise in cases where the country's contributions in human resources, materials and financing are not pinned down in specific terms in advance; e.g., in the Project Agreement or as conditions precedent (see Bolivia's Rural Development Planning and Development Corporations (511-0471/511-T-064) and Peru's Integrated Regional Development (527-0178) projects).

7. **Projects In Which Several Government Ministries, PVOs, and/or Other Private and Public Agencies All Share Responsibility for Implementation, Require Special Care in Delimiting Planning and Operational Responsibilities.** - Where coordinating responsibility is unclear and financial control is uncertain, substantial delays can occur. In some cases it is better to make one Ministry or Government Service completely responsible for coordination, and responsible of all project funding thus providing leverage with the other participating organizations (see Guatemala's Small Farmer Diversification Systems (520-0255), and Honduras' Natural Resource Management (522-0168) projects).

8. **Management and Technical Capabilities Are Important.** - Finding local competent, experienced project managers, and qualified foreign advisors in program, administrative and technical disciplines; and keeping qualified local managers and technicians from leaving after training is completed has presented significant problems on a number of projects (see Ecuador's Forestry Sector Development (518-0023) and ROCAP's Regional Integrated Pest Management (596-0110) projects).

9. **Project Design Sometimes Covers Too Many Activities or Areas, Designs are too Casual about Relationship of Inputs to Outputs, and Timeframes are Unrealistic.** - The most successful projects were carefully focused, and did not include too wide a range of activities. Some project design/logframes have been casual about linkage between inputs and outputs, and the timeframes for achieving specific results have not been realistic, making assessment of results by evaluation teams more subjective than desirable (see Belize's Livestock Development (505-0006), Peru's Agricultural Planning and Institutional Development (527-0238) projects).

10. **Evaluation and Monitoring Provisions in Project Design Need Specific Indicators or Signposts to Measure Progress.** - Evaluation teams could not always measure the progress of development activities due to lack of baseline data or specific targets; e.g., in the Project Agreement/Log Frame (see ROCAP's Regional Integrated Pest Management (596-0110) and RDO/C's Dominica Banana Company (538-0083) projects).

11. *Scopes of Work for Evaluation Teams Should Be Specific, Laying out Points of Special Interest to AID and the Government.* - Subjects, questions, data, information, points of emphasis should all be spelled out in SOW. While most evaluations covered technical points very well, management, institutional, and policy issues not always dealt with adequately (see Honduras' Rural Water & Sanitation (522-0166) and Belize's Rural Access roads and Bridges (505-0007) projects).

II. THE SYNTHESSES

II. SYNTHESES OF AGRICULTURAL PROJECT EVALUATION REPORTS --
LATIN AMERICA/CARIBBEAN (LAC)

The following thirty-three syntheses of evaluation reports are from twelve countries (Belize, Bolivia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Panama, and Peru), one regional organization (ROCAP), and one regional development office (RDO/C) of AID. The syntheses have been placed in alphabetical order by country with the regional organization (ROCAP) last.

Project Title: Belize Livestock Development Project
Project Number: 505-0006 **Mission: Belize**

PACD: Not supplied **Date of Evaluation: 11/85**
LOP: \$3.05 million **Type of Evaluation: Interim**
Host Country Contribution: \$1.18 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To improve small and medium farmers' production efficiencies in the rearing of livestock and to expand market outlets for these products, primarily through import substitution activities.

Findings - Negative results in the economic analysis of swine production have resulted in the cancellation of the swine improvement component in the Toledo region. The targets of the Pasture Improvement Component will probably not be met through the present focus and project work plan. The construction of the dairy plant is behind schedule, thus delaying the fresh milk demand study. The pork and beef processing component has run smoothly. Participant training is on schedule. The Office of Government Policy Analysis and Formulation has been set up within the Ministry of Works, though some difficulties exist in the proper incorporation of this office into the organizational structure of the Ministry.

Lessons Learned - A major problem with the project design is the casual linkage between inputs, outputs, and End of Project Status (EOPS). The technical assistance is provided through an implementing agency, in this case the Ministry of Natural Resources (MNR), but there is no direct interaction between advisor and farmer. If there is no clear understanding as to the role and responsibility of each implementor (the advisor or his counterpart) in effecting project targets, then project impact is severely reduced.

Another problem encountered in the project design is the large number of areas of focus and the difficulty of keeping so many different interventions on schedule. Comprehensive projects require that the gaps in the system that are to be addressed are clearly perceived, and the implementation schedule be carefully designed to be manageable and efficient.

Achievements/Impact/Problems - Except as indicated below, components are proceeding at or near schedule. The Government Policy Analysis and Formulation unit is developing as planned.

Impact of this project on production, earnings and GDP will not be measurable short-term, but the project is part of a wider group of agricultural projects in Belize.

In the Swine and Pasture Improvement components, emphasis will be shifted to direct work with farmers. The dairy plant and with it the milk marketing study were delayed, but are currently on their (revised) schedules.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - According to the 1988/89 Belize Action Plan, the primary sector of Agriculture, Forestry, and Fisheries is a major generator of foreign exchange, employs one-third of all wage earners and is a sector for major economic development and expansion in Belize. The Government of Belize, through a program of diversification, is addressing the need to increase exports and decrease reliance on sugar as the major export earner.

Anticipated Constraints - None anticipated.

Relative Priority/Mission Objectives - Agriculture is an important sector, of which livestock development is an important segment. Since USAID/Belize's approach to development in the agricultural sector is comprehensive and complementary, several other agriculturally oriented projects are also contributing to this goal by addressing specific constraints in infrastructure and alternative crop commercialization.

C) PROJECT DESIGN -

Strategy - The project focuses on increasing the production of domestic crops for local consumption, expanding exports, and increasing employment in the agricultural sector through demand studies, policy development assistance, and improved production efficiencies.

Host Country Implementation - The project was located in the Ministry of Natural Resources to improve research, extension, and policy formulation capabilities.

Components - (1) Swine Improvement: Work to be conducted with Central Farm and district stations to maximize the efficiency of their programs to provide breeding and finishing stock to farmers. Training to be provided through teaching at the Belize School of Agriculture, which would also receive assistance to expand its physical plant. A revolving loan fund to be established to provide qualifying small farmers with pigs, feed, and technical assistance on an in-kind basis. (2) Pasture Improvement: Training, extension, and technical assistance. (3) Dairy Industry Development: A market demand analysis for milk to be performed, with a dairy processing plant built with sufficient capacity to supply the needs of the study. (4) Pork and Beef Processing: Private livestock producers and butchers to be trained in meat processing techniques. (5) Government Policy Analysis and Formulation: A unit to be established in the office of the Minister/Permanent Secretary of the Ministry of Natural Resources (MNR). (6) Participant Training: MNR staff to receive U.S. training in specialized livestock subsectors and agricultural economics.

Resources - AID provided \$1 million in loan funds, primarily for training assistance, equipment, and vehicles. This was accompanied by a \$2.05 million grant, primarily for long and short term technical assistance and the dairy study and plant. The Government of Belize provided \$1.15 million for farm operating costs and salaries, matched with \$30,000 from the Belizean private sector for the dairy plant. This resulted in total project funding of \$4.23 million.

Timeframe/coordination - The project began in August, 1983. Final input delivery is scheduled for 1988 (the evaluation does not mention the PACD).

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included representatives from AID/W, AID/Belize, the South East Consortium for International Development, Land O'Lakes, and the host country's Ministry of Natural Resources.

Host Country Participation - The evaluation team included representatives from Belize's Ministry of Natural Resources.

Time Period - October 21-November 1, 1985.

Methods - First, project documents were reviewed. Second, field visits were made to project sites, including government research farms, participating farms, farms whose owners were interested in future participation, the dairy plant, meat processing facilities, etc. Finally, interviews were held with Ministry and AID personnel, farmers, and project technical advisors. A three day advisory council meeting was conducted in the latter part of the evaluation period, from which evolved recommendations as to how issues were to be addressed, and on the future direction of the Project.

Cost - Not supplied.

Support Arrangements - Not supplied.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Problems were encountered in the provision of technical assistance personnel and contractual arrangements for the dairy plant construction. These are now resolved and construction is proceeding.

Validity of Major Assumptions - Although a change of Government occurred in 1984, livestock remains a very high priority in the country's agricultural development plan.

Input Delivery - There were delays in providing Advisors to the Swine and Pasture Improvement Components. Training has been

established in both areas, but has suffered from the lack of direction which a fully established advisor could give. The prompt arrival of the technical advisor for the meat processing component resulted in successful implementation of that component. Seeds and equipment, ordered from abroad to establish nurseries, could not be obtained in time to meet planting schedules. Emphasis will now be on direct work with farmers, especially dairy farmers, in pasture improvement, in order to demonstrate the benefits (if any). It is felt that no progress can be made until benefits can be clearly shown to farmers. Contractual difficulties delayed the building of the dairy plant. An interim Policy Analyst was appointed to establish that office while the permanent advisors were receiving training in the U.S., but his dual role as Chief of Party for the project team has reduced the pace of progress.

Output Attainment - Thirty-four zonal officers and sixteen extension officers have been trained in pasture improvement and intensive swine production by seminars, workshop, discussions in the field and observation tours to the U.S. Eight of a targeted thirty private butchers have been trained in meat processing techniques. Six staff members from the Ministry of Natural Resources have received training in the U.S.

The dairy processing plant has an estimated completion date of May 1986. The fresh milk market demand analysis will follow completion of the dairy plant. A new conference/classroom has been constructed and new library materials provided at the Belize School of Agriculture. A special operating expense fund has been established at the Central Farm. The policy analysis unit has been established in the office of Minister/Permanent Secretary at the Ministry of Natural Resources.

Purpose/Indicators Progress - Some progress has been made in increasing production and processing efficiencies in beef and pork. However, these have not yet resulted in any reduction of imports or increase in exports. The Central Farm has provided greater technical backstopping to the extension service, but the project has been deficient in promoting on-farm activities. The quality of education and resources has been improved at the Belize School of Agriculture. The number of farmers engaged in pasture improvement and intensive swine production has increased, but not to the levels targeted by the project.

Impact - According to the evaluation, the project's development impact will not be immediately visible. The project has a broad focus; consequently, overall efforts are diluted.

Contribution toward Planned Goal - The project goals are: (1) to increase the agricultural national product by fifty percent in real terms between 1982 and 1990, and (2) to increase household income of farmers owning less than 100 head of cattle or less than thirty drove of pigs. Measure (1) is probably impossible to achieve given the present difficult economic situation,

the small domestic market, and the elusive export market. Measure (2) is achievable once several constraints and issues discussed in the evaluation are addressed.

External Factors - Removal of several operational constraints, such as lifting the restriction of the movement of carcasses within districts, has added incentive to livestock producers and processors.

In the swine activity, the Toledo swine activity was closed down because of poor economic and social prospects. Elsewhere, one constraint is the high price of feed, and another that the Government piggery (unintentionally) sets a price for feeder pigs which may be below farmers' production costs.

The pasture improvement component has been delayed by illness of the Pasture Advisor, and delay in seed procurement leading to missed planting schedules.

Unplanned Effects - Since the initiation of the construction of the dairy plant, work has also commenced on improvements by Western Dairies of their plant. While not a direct effect of the project, it may be construed as a reaction to the competition.

The market for deboned beef in the U.S. has dropped since project conception and implementation, making the economics of developing a beef industry geared to that market risky. Hence, the management of the Ladyville abattoir has directed a large portion of their products to the domestic market. This has increased competition among the meat processing constituency for shares in the domestic market, which is not large enough to sustain both small processors and the Ladyville abattoir. There is now some debate as to who should be allowed to service the domestic market.

Upon withdrawal of the Toledo swine activity, a vacuum has been left as far as assistance to swine farmers in the region. The discontinuation of the effort has emphasized the need for a cautious approach to development in Toledo.

Lessons Learned - A major problem with the project design is the casual linkage between inputs, outputs, and EOPS. The major input has been in the form of technical assistance and that is in an advisory capacity. Some of the outputs and EOPS demand physical results, i.e., increased number of pigs, increased number of farmers, etc. The technical assistance is provided through an implementing agency, in this case the MNR; there is no direct interaction between advisor and farmer. Similarly with the other inputs, they are implemented through the intermediary agency. If there is no clear understanding as to the role and responsibility of each implementor (the advisor or his counterpart) in effecting project targets, then project impact is severely reduced.

Project Title: Rural Access Roads and Bridges

Project Number: 505-0007

Mission: Belize

PACD: 10/87

Date of Evaluation: 11/86

LOP: \$10.48 million

Type of Evaluation: In-house/Interim

Host Country Contribution: \$3 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To increase the capability of the Government of Belize to build, maintain, and protect its rural access road infrastructure through training, technical assistance, and equipment procurement. The goal is to increase Belize's agricultural production through the rehabilitation and maintenance of all-weather rural access roads and bridges.

Findings - The main thrust of the project is on-the-job training with limited theory as necessary. The progress in the Construction Rehabilitation and Training Unit has been and continues to be very slow, due to too much rain, long haul distances to adequate construction material, and time spent in-transit to working sites. In the Management Improvement component, the training appears to be adequate.

On roads already rehabilitated to the Project Paper specifications in the Belize and Cayo Districts, very little follow-up maintenance, if any, is being done. The Bridge component is far behind schedule. Given the delays, the PACD should be extended to December 31, 1987.

Lessons Learned - None mentioned.

Achievements/Impact/Problems - The in-house evaluation provided for the preparation of this synthesis does not provide supporting evidence to assess the degree of project progress towards achieving purpose and goal.

However, the project has evolved beyond start-up activities and steady progress is being made towards achieving the Project's purpose and goal. Much of the maintenance equipment has arrived and is being distributed to District Rehabilitation Units. Bailey bridges for the bridge program have also arrived. AID/Belize has exercised prudent management in working with the Ministry of Works to develop costs acceptable to AID/W and not be carried away with overdesign and high costs. The intensity and distribution of rainfall, flooding of borrow pits, and generally difficult working conditions, have been a continuous problem with rehabilitation, bridge construction, and follow-up maintenance activities.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Not supplied.

Anticipated Constraints - The district Ministry of Works offices face a lack of both operational equipment and adequate budgets to carry out minimal maintenance on existing roads.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - The Government of Belize will improve its performance in the construction and maintenance of rural roads through: (a) training of its technical, managerial, and laboring workforce; (b) development and adoption of appropriate management systems; and (c) procurement of new capital equipment.

Host Country Implementation - Administration of the project is housed in the Ministry of Works. The bridge component is to use local private construction contractors to build the 108 bridge abutments and forty-two center piers (at a total contract cost of \$3 million).

Components - (1) A training program for rural road construction and rehabilitation through on-the-job experience for Ministry of Works foremen, equipment operators, technicians, and laborers. (2) A Road Maintenance Training Unit to institute a regularized approach to district level rural access road maintenance, equipment procurement, and technical assistance. (3) Management Training. (4) Equipment Maintenance - technical assistance and training to enable District workshops to improve their equipment maintenance and repair operations. (5) The provision of bridging material for the construction of fifty-four high-level all-weather river crossings on roads selected for rehabilitation. The Ministry of Works is responsible for contracting and labor costs.

Resources - \$10.5 million.

Timeframe/coordination - Road rehabilitation began in August 1984, six months behind the Project Paper projected start-up date of March 1984. PACD is 10/87.

D) EVALUATION METHODOLOGY -

Team Composition - Team members for this in-house evaluation included Project Manager Alex Powers; Chief of the Agricultural Development Office Stephen Szadek; Economist Arturo Villanueva of the Project Development Office; Controller Mohamed Tanamly; the Head of Roads at the Ministry of Works, James Robinson; and Dr. Gilbert Canton, Project Manager from the Agricultural Development Office.

Host Country Participation - Mr. Robinson, Ministry of Works advisor.

Time Period - The evaluation was conducted from October 20-24 and November 10-14, 1986.

Methods - Site visitations and discussions.

Cost - Not supplied.

Support Arrangements - Not supplied.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The equipment and technical assistance personnel arrived and became established in-country "as promptly as could be expected" and road rehabilitation began in August 1984. The evaluation found the Project Paper implementation schedule to be overly optimistic in expecting road rehabilitation to begin in March 1984 and consequently the Project is approximately six months behind schedule.

Validity of Major Assumptions - Given the serious constraints facing the district offices in terms of lack of operational equipment and inadequate budgets to carry out minimal maintenance on existing roads, effective rural road maintenance may be more adequately addressed in a follow-on project that could focus on these constraints.

Input Delivery - In the equipment maintenance component, allocation of project equipment and tools to the district workshops is not complete, with some being held back at the central shop in Belmopan. The equipment specialist has been engaged in activities other than equipment maintenance training and has been unable to follow a continuous schedule.

The district offices of the Ministry of Works are constrained by limited funds and few operational pieces of equipment. This has led to the use of Maintenance Training Units on principal highways rather than rural roads as was planned. Given the inadequate budgets of these offices, this diversion of project resources was inevitable.

Early in the implementation of the bridge component, it became evident that the \$3 million was not going to be available from the Government of Belize. Economic Support Fund (ESF) generated local currency was used to get bridge construction going, but it has since been slow in developing the designs with associated costs approved by AID, and in contracting with the private sector.

Output Attainment - forty-four foremen, equipment operators, and laborers have received on-the-job training, and some forty-four more are in the process of being trained. Road and equipment maintenance personnel have received very limited training.

At the time of evaluation, two bridges were complete, four under construction, and two in the contracting stage.

Purpose/Indicators Progress - The Construction and Rehabilitation Training Unit is far behind schedule in completing the targeted 300 miles of rehabilitated rural roads. Reasons for this include the heavy rains, long haul distances for adequate construction material, and the working time spent in-transit to working sites. Considering these problems, the evaluation team states that the Units have performed reasonably well.

Impact - Not supplied.

Contribution toward Planned Goal - The project goal was "to increase Belize's agricultural production through the rehabilitation and maintenance of all-weather rural access roads and bridges." No mention is made of the resulting contribution of the project on agricultural production.

External Factors - The 1984-85 rainy season experienced heavier than average rainfall. This hindered transportation and communication in a number of maintenance and rehabilitation activities.

Unplanned Effects - None mentioned.

Lessons Learned - None mentioned.

Project Title: Rural Development Planning & Departmental
Development Corporations
Project Number: 511-0471; 511-T-064; 511-T-065 **Mission:** Bolivia
PACD: 12/85 **Date of Evaluation:** 11/85
LOP: \$13.45 million **Type of Evaluation:** Final
Host Country Contribution: None

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The Rural Development Planning Project (511-0471) and the Departmental Development Corporations Project (511-T-064 and 511-T-065) formed the basis of an integrated effort to improve the capability of both the Ministry of Planning and Coordination (MPC) and the Departmental Development Corporations (DDCs) to promote, design, and implement productive rural development projects, especially in cooperation with the private sector, which will be of direct benefit to target group communities.

Findings - (1) The technical assistance since the 9/83 re-programming, as well as the training, seminars, and publications, improved the institutional capacity of the DDCs to elaborate coherent departmental plans and private sector projects. (2) As a result of the project's technical assistance, the outreach capacity of the DDCs through their Financial Credit Unions (UCF) is improving; however, delays in the subproject approval process are beginning to jeopardize the advances gained to date. Sixty-four projects totaling U.S. \$9.5 million have been submitted, but none have been approved for financing. (3) The PACD for the project should be extended by 12 months to allow the subprojects to become operable. (4) Cultural and ecological differences have an impact on a DDC's ability to implement a program of this type to the extent that a requisite amount of infrastructure and entrepreneurial capacity must be available; consequently, most subprojects will be urban rather than rural. (5) The project's proposed benefits will reach only a limited portion of the target population due to the limited size of the fund, the lack of approved subprojects, the inability of many to design a subproject, and a general lack of familiarity with banking and financial organizations. The use of PVOs is recommended to broaden the impact of the project on the target population.

Lessons Learned - None supplied.

Achievements/Impact/Problems - If a proposed twelve-month extension of the PACD is approved, and if additional funding is found for a transitional period, USAID, the DDCs, and the private sector will have an excellent funding mechanism to reach the target population.

Because none of the subprojects have yet been implemented, the project has yet to produce any impact.

Implementation was interrupted and the loan portion frozen between 11/81 and 4/84 due to poor dynamics and leadership from

the technical assistance team, the lack of executive authority on the part of the DDCs to implement the methodologies, the interruption of the technical assistance activities as a result of political issues, and almost non-existent political support for the project from the Government.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Not supplied.

Constraints - Not supplied.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - The original project designs focused on the development of methodologies and overall planning assistance. Re-programming increased funding and concentrated on private sector subproject creation and implementation, with four allowable categories of subprojects: private sector investment partially financed through commercial banks, DDC/Private Sector joint ventures, DDC-owned enterprises, and rural development infrastructure projects.

Host Country Implementation - The implementing agency was to have been the MPC, which was to have coordinated with the nine DDC's to improve their overall planning capacity. However, at reorientation, a semi-independent Project Coordination Unit (UCP) was established outside of the MPC and under AID to implement the project.

Components - (1) Development of technically sound methodologies for regional planning and project identification, preparation, and analysis; (2) Assist the DDCs in the use of these methodologies to prepare annual operating plans according to revised MPC guidelines; (3) Assist the MPC in the development of overall guidelines for its planning system.

Resources - The Rural Development and Planning project originally provided a grant of \$1.2 million for technical assistance. This was later raised to \$4.2 million through various amendments. The Departmental Development Corporations project provided for a loan of \$10 million to establish a complementary project implementation fund of \$9.7 million and an additional technical assistance fund of \$0.3 million.

Timeframe/coordination - The project began in August 1978, with the original grant for technical assistance expended in part over the 1978-1981 period. Its implementation was interrupted between November 1981 and April 1984. The loan portion remained frozen until it was reprogrammed in September 1983 and the various conditions precedent were met in mid-1984.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included agricultural economist Donald Jackson, social anthropologist Ivo Kraljevic, and regional planner Larry Herzog.

Host Country Participation - None mentioned.

Time Period - Field data collection and preliminary draft write-up were conducted between July 8 and August 2, 1988.

Methods - Review of pertinent documents; extensive interviews with AID and Project Coordination Unit staff, representatives of five of the nine departmental development corporations, Ministry of Planning and Coordination personnel, bankers, potential borrowers, and other members of the private sector.

Cost - No information was included on the cost of the evaluation contract with Development Alternatives.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The integrated planning process envisioned in the Project Paper never occurred for two primary factors: (1) There was an internal division among the technical assistance team about the proper role of the advisors. Some preferred to follow a course of pure methodological design, whereas others wanted the projects designed and implemented as case studies for the methodologies. (2) These advisors had not been placed within the structural hierarchy of either the MPC or the DDCs. This meant that they were allowed to act as free agents, under no particular control or authority. Their work was therefore seen as unintegrated, highly technical, and beyond the capability of the local institutions to implement.

Validity of Major Assumptions - The failure of the Bolivian government to give adequate support to the project and the non-compliance with the terms of the contract by the technical assistance team caused the need for suspension and reprogramming of the project.

Input Delivery - The original technical assistance team from Practical Concepts, Inc. (PCI) comprised seven advisors for a period of three years each. The TA team arrived on time, but due to the reasons mentioned, they did not produce a significant output.

The reprogrammed phase provided TA to the MPC and the DDCs through 36 person-months of additional support from the Rural Development Planning Project. This provided one planning advisor to the MPC and one to each of the nine regional development corporations.

At the end of 1984, another attempt was made to reorient the technical assistance team of the UCP to improve its efficiency and to reflect the new project focus. The nine DDC advisors were reduced to four. The nine departments of the country were then organized into four groupings based on potential subproject activity and ease of communication, with one advisor assigned to each. It was felt that full-time advisors tended to become part of the DDC bureaucracies and were therefore not as effective as short-term technical assistance.

Output Attainment - In the original phase, the PCI team produced the project management system (SMP) which uses the Logical Framework Matrix as a tool for both planning and monitoring. By the end of 1984, the technical advisors assigned to the nine DDCs had developed regional surveys and operational one- and five-year plans for each DDC.

Purpose/Indicators Progress - None of the sixty-four subprojects have yet made it past the approval and procurement process to implementation. The reasons for this slow pace include: "the large numbers of agencies involved in the approval process, vague definitions of the target population and subproject selection criteria, hyper-inflation, and the difference between the official and parallel exchange rates."

Impact - Because none of the subprojects have yet been implemented, the project has yet to produce any impact.

Contribution toward Planned Goal - The goal of the projects is to improve the standard of living of the rural and urban poor.

External Factors - There was a cooling of U.S. - Bolivian relations following the Garcia Meza coup in June 1980. This required the PCI staff working with the MPC to keep a low profile and to restrain from ministerial-level contacts. During this period, Bolivia also suffered through four successive governments and five planning ministers.

As a result of the apparent contractual non-compliance, the government of Bolivia sued PCI for failure to provide the day-to-day technical assistance required under the contract. PCI responded with its own suit for non-payment. In July 1985, this case was decided by a U.S. court in favor of Bolivia.

Hyper-inflation and the large difference between the official and parallel exchange rate hampered the local economic situation and the ability of the Bolivian government to adequately cover local administrative costs.

Unplanned Effects - None mentioned.

Lessons Learned - None supplied.

Project Title: Chapare Regional Development Project
Project Number: 511-0534 **Mission: Bolivia**

PACD: 1987 **Date of Evaluation: 9/86**
LOP: \$16.9 million **Type of Evaluation: Interim**
Host Country Contribution: \$19.3 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To modify and improve the agricultural and forestry systems of farmers in the Chapare region with sustained, environmentally acceptable, medium technology production models. This would enable them to respond better to diverse, potentially profitable marketing opportunities.

Findings - Despite the lack of coca control and other severe constraints, significant progress has been made in the research and extension components with extension agents gaining the confidence of farmers in the area and establishing limited on-farm plantings of non-coca crops. However, little progress has been noted in the credit, agribusiness, and agroindustrial components due to the government's inability to control coca production, hyper-inflation and related problems in the national economy, and the high level of financial risk associated with investment in the region.

Lessons Learned - None supplied.

Achievements/Impact/Problems - Potential for success depends almost entirely on coca production control. The total project budget of \$36 million is minimal compared to the estimated \$50-100 million in annual gross income realized by coca farmers in the Chapare.

The Ministry of Planning and Coordination, responsible for overseeing the project, has been weak in implementing the institutional framework of the project administration unit, the Secretariat for the Development of the Bolivian Tropics (SDBT). In addition, USAID has not delegated sufficient authority or clearly defined the role of SDBT so that it can function as an effective planning/coordination agency. This has developed an image in which SDBT is seen as a local division of USAID.

Finally, project administrative offices remain in Cochabamba, approximately 180 km. from the Chapare.

B) PROJECT RATIONALE -

Factors Leading to Selection - The project was begun in 1983 to promote balanced economic development through public and private sector participation in a 422,000 hectare area at the foot of the eastern slope of the Andes. This section of the Chapare region had become a focal point of coca production; the project coincided with a coca eradication program aimed at

establishing stronger alternative economic opportunities for former coca farmers.

Anticipated Constraints - Due to the coca eradication program, the project has an unusually large number of agencies involved which compounds coordination and communication problems. The coca production and control environment results in a significant amount of absentee land ownership, spiraling wages due to extremely profitable coca production, and genuine security concerns. The area was chosen for its high coca production, not for its agricultural potential; in fact, the soils and climate of the Chapare are only marginally suited for agricultural potential.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - Realization of the project purpose is based on a demand pull strategy through which enhanced marketing of agricultural and forestry commodities will stimulate increases in production and, consequently, an improved income and standard of living for Chapare farmers.

Host Country Implementation - Administratively, the project was placed in the Ministry of Planning and Coordination (MPC) under the direction of its Subsecretary. Daily project administration is delegated to the SDBT in Cochabamba. The director and key personnel are appointed in consultation with the MPC and AID. SDBT submits specific project implementation problems for resolution by the Chapare District Consultative Council, composed of Cochabamba departmental implementing agencies as well as Chapare farmer organizations.

Components - The project has six general components: (1) Agroindustrial Development, (2) Small-scale Agribusiness, (3) Agricultural Credit, (4) Marketing and Information Services, (5) Research and Extension Activities, (6) Institutional Development.

Resources - USAID provided \$4.4 million in grants and \$10 million in loans to supplement \$21.8 million in local funding.

Timeframe/coordination - The Project Agreement was signed with the Government of Bolivia in 1983 for a project life of five years.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included team leader and institutional advisor Douglas J. Pool, agricultural credit specialist Dale Adams, agroindustrial advisor Clarence Boonstra, and research and extension specialist Gregory L. Morris.

Host Country Participation - None indicated.

Time Period - The evaluation was done from August 4 until September 19, 1986. Approximately thirty percent of the consultants' time was spent in the Chapare and Cochabamba, with the remaining time devoted to interviews and report preparation in La Paz.

Methods - Methodology included interviews with Mission and Project personnel, discussions with members of other public and private sector institutions, field observations, and a review of project documents.

Cost - Not supplied.

Support Arrangements - Not supplied.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Implementation was hindered by three factors: (1) the lack of an effective coca control program, (2) continued social agitation in Bolivia in 1984-85, causing serious setbacks in field implementation and work plans, (3) Serious infrastructural barriers caused by the washout of roads and bridges, coupled with a lack of funds for repair.

Validity of Major Assumptions - As mentioned above, the project depended heavily on the success of coca eradication efforts. Effective control was not achieved until mid-1986 when U.S. helicopters arrived in Bolivia to support raids against drug laboratories in the Beni, lowering the price of coca from its peak 1985 price of \$800/carga to the late 1986 price of \$15-50/carga.

Input Delivery - Only \$213,000 (sity-one loans) of a targeted \$7 million has been loaned by the Bank of Cochabamba. The evaluators attribute this failure to provide more credit to the complex application procedure, the inaccessibility of the bank (four hours away from the Chapare region), conservative collateral requirements, and high transaction costs.

Approximately half of the budgeted technical assistance has been supplied by Experience Incorporated (EI). The evaluation recommends that the EI consultants take a more aggressive role in the creation of future research/extension priorities, particularly in the planning of research activities that produce technological packages utilizing both perennial and annual crops.

Output Attainment - The project's primary output has been in the area of agricultural research and extension. Activities on the development of non-traditional crops have been concentrated at two experimental stations, the stock of which has been sold to local farmers. Additional observation trials are being conducted locally within thirty of a targeted 140 Demonstration Production Units, community-based nurseries which have

been more cost-effective than the main experimental stations. Sixteen of a targeted fifty technical packages have been produced for on-farm usage.

AID assisted the Regional Development Corporation of Cochabamba in research and limited pre-feasibility studies on the development of lemon oil, menthol, and other minor specialized crops.

The four large agroindustries selected for development were particle board, fruit processing, swine fattening, and kudzu dehydration. Due to a lack of adequate infrastructure and high production costs, very little progress has been made with these up to this point.

Negligible output has been achieved in agribusiness coordination or marketing and information services.

Purpose/Indicators Progress -

Impact - The agribusiness and agroindustrial components were determined to have little, if any, potential impact. The research and extension components have demonstrated significant impact in the development of new crops and improved agricultural practices. The credit and marketing information services are considered to have great development potential, if continued with major alterations.

Contribution toward Planned Goal - The project goal is "to stimulate balanced economic development and an enhanced standard of living in the Chapare region, resulting from a mixture of public and private sector participation, a diversified economic base, and more equitable income distribution." Though the project has achieved modest successes in certain components, the goal, like the project design itself, is a bit too ambitious for the administrative capability and actual activities in the Chapare.

External Factors - The project started in the midst of a hyper-inflation which severely affected all financial institutions, bankrupted the Agricultural Bank of Bolivia, wiped out personal savings, affected project disbursements, and generally produced a period of tremendous economic uncertainty and distortion. The Bolivian economy has been severely depressed, dampening the ability and interest of entrepreneurs to invest in new activities in the Chapare and limiting the markets for many of the products that might be produced there.

Unplanned Effects - None mentioned.

Lessons Learned - None supplied.

Project Title: Credit Union Strengthening

Project Number: 515-0189

Mission: Costa Rica

PACD: 7/86

Date of Evaluation: 9/86

LOP: \$600,000

Type of Evaluation: Final

Host Country Contribution: \$400,000

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To strengthen the National Federation of Savings and Loan Cooperatives' (FEDECREDITO) administrative, operational, and institutional capacity and to expand its services to the affiliated cooperatives in rural areas.

Findings - FEDECREDITO staff is now more qualified academically and technically, and has doubled in size. FEDECREDITO offers member credit unions a central liquidity facility to absorb surplus credit union funds while providing several types of credit programs to increase member union loan capital. The federation also offers training and technical assistance in planning and management for its members. Despite increases in member deposits, both member unions and the federation have reduced their liability/capital ratios.

Lessons Learned - (1) A revolving loan fund used to pay competitive salaries can be an effective way to attract qualified personnel for local level institutions. (2) Savings can be mobilized, even among lower- and middle-income groups, if market level rates are offered. (3) Governments can play an important role in the development of private-sector cooperative institutions by respecting their independence, promoting their growth and development, providing the public with adequate controls against mismanagement or corruption, and providing relief to private sector organizations affected by unforeseen changes in national economic conditions which are clearly beyond their effective control. (4) Reliance by a cooperative financial organization on a loan-based capitalization system produces distortions and risks; a proportional savings- or asset-based approach is likely to be more equitable to the membership and reduce risks for the organization. (5) Treating share capital as equity in credit union organizations can potentially lead to repayment or default problems. Building reserves and retained earnings creates the necessary financial cushion to meet potential losses. (6) Credit unions may find non-financial services to be only marginally profitable at best, and divert the limited managerial and financial resources away from financial operations. (7) National membership organizations, like FEDECREDITO, should be in the vanguard of the adoption of computer technology in order to ensure that the systems developed will be adequately compatible, achieve minimum operating standards, and provide sufficient information to meet decision-making needs. (8) Successful projects do not necessarily require elaborate designs and detailed implementation procedures. A more simplified approach still requires the implementing organization to plan and take responsibility for its own

development. (9) The support of a worldwide network such as that of the credit union movement with its vertical integration linking individual credit unions to national federations, which in turn are linked to regional confederations and finally to the World Council of Credit Unions, is a real advantage to be considered by project designers. (10) A membership relationship, such as exists between FEDECREDITO and the Latin American Confederation of Credit Unions (COLAC), can increase the probability of receiving quality technical services, since motivation to provide appropriate assistance is increased. (11) Projects are successful only to the extent that highly competent and motivated individuals are identified to fill key positions within the implementing organization. For project designers, the "who" is at least as important as the "what."

Achievements/Impact/Problems - The objectives of the project have been met, with FEDECREDITO restored to financial health. The federation has a solid base of fifty member credit unions, serving nearly 100,000 members. Growth in key indicators such as savings, deposits, loans, and assets has been exceptional at the credit union level, in part a result of the market-level interest rates used to increase deposits.

The fourfold growth in members affiliated to FEDECREDITO means that about sixteen percent of the total population is now served by the federated credit union movement. Interest income has increased for members. Loans to small farmers, merchants, and manufacturers, who generally cannot obtain credit, increased sixfold by 1985.

While much of FEDECREDITO's capital expansion has come from subscription of shares by member unions (unions must purchase shares to obtain loans), only forty percent of these shares are actually paid up. While this weakness does not threaten the federation now, an economic downturn could lead to financial difficulty if borrowers and unions in turn do not repay their loans.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Prior to the Project, the credit union movement, particularly at the federation level, was experiencing serious financial and operational difficulties. The federation was unable to provide meaningful technical assistance and training services, and its financial operations were in disarray, due to high dollar-denominated debt and over-investment in unprofitable non-financial operations. Its financial position was weakened severely by the rapid devaluation that occurred in the early 1980's, making it virtually impossible for the federation to repay its dollar-denominated loans with COLAC. As a result, credit union membership in the federation had declined to just seventeen credit unions.

Constraints - See "Factors" above.

Relative Priority/Mission Objectives - This project correlates strongly with each of the four "pillars" of AID's overall

development strategy. First, it exemplifies the Agency's objectives with respect to institutional development; a strong human and financial resource base has been established within a system designed to provide continuing benefits to its members. Second, in a nation with a nationalized banking system, the FEDECREDITO system represents one of the few private sector alternatives for financial and related services, particularly in rural areas. Third, it has actively dialogued with national government officials to obtain policies more favorable to private sector finance institutions. Finally, it has been a leader in stimulating the adoption of new technology, including not only equipment such as computerized accounting and information systems, but policies that will make its member credit unions able to successfully compete as business enterprises in the financial marketplace.

C) PROJECT DESIGN -

Strategy - As part of its development strategy for the FY 1983-87 period, the Mission noted its intention to "provide credit and technical assistance to farmers, especially small producers, through an extensive rural cooperative network." About two-thirds of FEDECREDITO's member credit unions are found in the rural areas; much of the federation's programs and services have been focused on these credit unions. They have been the major recipients of external capital intermediated by the federation.

Host Country Implementation - The project was aimed at strengthening Costa Rica's existing national credit union organization, FEDECREDITO.

Components - (1) Administrative Credit program;
(2) Strengthening FEDECREDITO Administrative Capabilities;
(3) Technical Assistance in administrative and financial management, planning, and credit management.

Resources - The total cost of the project was placed at \$1,158,985, of which the AID/OPG of \$600,000 was to be matched by the counterpart contribution of \$558,985 in local currency.

Timeframe/coordination - The Grant Agreement was signed in 7/82, with PACD of 7/86.

D) EVALUATION METHODOLOGY -

Team Composition - The team included Gordon Hurd, the World Council of Credit Union's (WOCCU) Development Resources Coordinator; Peter Livingston, the former Vice-President of Economics and Research for the U.S. Credit Union National Association; and Marcus Schaefer, the General Manager of the FDIC Federal Credit Union. Edison Silva, Manager of Financial Operations for COLAC, joined the team during the third week in Costa Rica, and Peter Marion, WOCCU's Regional Coordinator for Latin America, provided technical guidance and direction.

Host Country Participation - None mentioned.

Time Period - Field work covered two weeks in August 1986, with another week devoted to analysis of the information obtained and preparation of a draft report.

Methods - Project documentation was reviewed, interviews were conducted with all management staff of FEDECREDITO affiliates, discussions were held with AID officials, and on-site surveys of nine affiliates were carried out. A conference was held before the team's departure to brief AID and FEDECREDITO on the evaluation's findings.

Cost - The evaluation contract with the World Council of Credit Unions was for \$23,465.

Support Arrangements - Completion of the evaluation required two person-days of Mission professional staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - No problems were mentioned as to meeting grant requirements, provision of initial capital, or the beginning of technical assistance.

Validity of Major Assumptions - From 1982 to 1985, the federation expended nearly 46.3 million colones for administrative and operational costs, nearly double the counterpart required by the Grant Agreement.

Input Delivery - Capitalization for FEDECREDITO was originally based on loan activity from the local currencies generated by the PL480 Title I program. These funds, received in 1984, have been disbursed and the projected capitalization subscribed.

Technical assistance was provided by COLAC. The contract provided for a resident consultant to be based at FEDECREDITO and work closely with the federation's management staff. The evaluators felt that the technical assistance provided by this consultant influenced the overall success of the project to a considerable degree.

An Administrative Credit fund was established for the members to draw from to upgrade their administrative personnel, specifically by providing to each of the participating members the funds to hire three individuals: a manager, an accountant, and an agricultural extensionist.

Output Attainment -

	<u>June 1982</u>	<u>June 1986</u>
Membership	29,000	94,139
Loan Volume (million c.)	7.5	1,275.3
Affiliated Unions	26	50
Unions with complete staffs	10	25
Assets (million c.)	75	810
Loans/Assets (%)	15	36
Deposits (million c.)	38	570
Loan Capital from external sources (million c.)	32	112
Liability/Capital	17:1	7:1
Unions receiving loans	6	64
Net margin (%)	-10.4	0.1

Source: World Council of Credit Unions Evaluation Report, Volume II, 9/86.

Purpose/Indicators Progress - The federation is now 100 percent self-sufficient. The goal of twenty-five member cooperatives benefiting from the Administrative Credit program and the fund is being recycled to reach a new goal of forty-five by the eighth year. Loan terms have been shortened to one year in most cases in order to accelerate the rotation of these resources. All member credit unions had reached self-sufficiency by the fourth year and a total of thirty-eight percent of the principal has been repaid and made available for more loans.

Finally, not only has FEDECREDITO's staff doubled from nineteen to forty over project life, the quality has improved to the extent that nineteen now have university degrees and ten have advanced technical training. In 1982 only one staff member had a university degree.

Impact - The fourfold growth in members affiliated to FEDECREDITO means that about sixteen percent of the total population is now served by the federated credit union movement. Interest income has increased for members; loans to small farmers, merchants, and manufacturers, who generally cannot obtain credit, increased sixfold by 1985.

Contribution toward Planned Goal - The project goal was to strengthen the cooperative sector in Costa Rica. The subgoal of expanding the services of FEDECREDITO to reach a large section of the population that hitherto did not have access to an array of banking services was to be achieved through strengthening the federation's administrative base. According to the PES II, "an indication of how successful the project was in reaching its goals can be seen in the number of individual members now being adequately served by the institution and its affiliates."

External Factors - The chief external factor affecting this project was the economic crisis that has influenced all sectors in Costa Rica since the beginning of this decade.

Unplanned Effects - In a very modest way, the project may have contributed to alleviation of the balance-of-payments problem. The federation's savings were mobilized from domestic sources, i.e., credit union members, thereby reducing dependence on external capital to finance small-scale productive endeavors.

Lessons Learned - (1) A revolving loan fund used to pay competitive salaries can be an effective way to attract qualified personnel for local level institutions. (2) Savings can be mobilized, even among lower- and middle-income groups, if market level rates are offered. (3) Governments can play an important role in the development of private-sector cooperative institutions by respecting their independence, promoting their growth and development, providing the public with adequate controls against mismanagement or corruption, and providing relief to private sector organizations affected by unforeseen changes in national economic conditions which are clearly beyond their effective control. (4) Reliance by a cooperative financial organization on a loan-based capitalization system produces distortions and risks; a proportional savings- or asset-based approach is likely to be more equitable to the membership and reduce risks for the organization. (5) Treating share capital as equity in credit union organizations can potentially lead to repayment or default problems. Building reserves and retained earnings creates the necessary financial cushion to meet potential losses. (6) Credit unions may find non-financial services to be only marginally profitable at best, and divert the limited managerial and financial resources away from financial operations. (7) National membership organizations, like FEDECREDITO, should be in the vanguard of the adoption of computer technology in order to ensure that the systems developed will be adequately compatible, achieve minimum operating standards, and provide sufficient information to meet decision-making needs. (8) Successful projects do not necessarily require elaborate designs and detailed implementation procedures. A more simplified approach still requires the implementing organization to plan and take responsibility for its own development. (9) The support of a worldwide network such as that of the credit union movement with its vertical integration linking individual credit unions to national federations, which in turn are linked to regional confederations and finally to the World Council of Credit Unions, is a real advantage to be considered by project designers. (10) A membership relationship, such as exists between FEDECREDITO and COLAC, can increase the probability of receiving quality technical services, since motivation to provide appropriate assistance is increased. (11) Projects are successful only to the extent that highly competent and motivated individuals are identified to fill key positions within the implementing organization. For project designers, the "who" is at least as important as the "what."

Project Title: Northern Zone Infrastructure Development
Project Number: 515-0191 Mission: Costa Rica

PACD: 4/88 Date of Evaluation: 2/87
LOP: \$14.7 million Type of Evaluation: Interim
Host Country Contribution: \$4.56 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To provide a basis for the efficient and equitable socioeconomic development of the cantons of Upala, Guatuso and the district of Santa Cecilia of the canton of La Cruz. This would include increasing access to markets/services and agricultural assets, and expanding community level infrastructure and the knowledge base required to plan and initiate productive investments.

Findings - The Road Improvement and Community Development Components are success stories, and progress under the Land Settlement component is quite acceptable. No opinion was provided on the effect of the titling component because not enough had been accomplished (due to implementation delays) to provide such an assessment. Project Coordination and Pre-investment Fund Activities have been unsatisfactory.

Lessons Learned - Allow ample time for formal ratification of the Grant Agreement before any significant activity is to begin. The legalistic bent of GOCR officials precludes preparatory activity in the period between signature and ratification.

Achievements/Impact/Problems - There has been visible change in the project area in terms of physical infrastructure and organization/mobilization of both official and community entities.

The project in general has had a positive impact on the attitudes of inhabitants of the Northern Zone. There is a sense of optimism about the future, and there has been visible change in terms of physical infrastructure, organization, and mobilization.

The problems in Project Coordination and Pre-Investment Fund Activities are attributed to ineffective management by the Government of Costa Rica Coordination Office in terms of bureaucratic intervention, staffing problems, program planning and oversight, and legal difficulties with the technical assistance contractor.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Not supplied.

Constraints - Not supplied.

Relative Priority/Mission Objectives - The Mission considers this project to be the most important infrastructural project currently underway in Costa Rica, due to its capacity to link the

isolated Northern zone with the rest of the country both socially and economically.

C) PROJECT DESIGN -

Strategy - Not supplied.

Host Country Implementation - The project's various components were implemented by a number of agencies, including the Ministry of Public Works, the Ministry of Agriculture, DINADECO, IDA, and MIDEPLAN, the project coordination office established for implementation (no expansion is given on these abbreviations).

Components - Road Improvement, Community Development Activities, Land Purchase and Settlement, Titling, the Coordination Office and the Consultative Committee, Special Studies, and the Cano Negro Wildlife Refuge.

Resources - AID provided \$14.7 million, and the Government of Costa Rica included approximately \$5 million in local currency counterpart for Road Improvements, Project Coordination, Land Purchase, and Land Titling.

Timeframe/coordination - The Loan Agreement was signed in July, 1983, but it was not ratified by the Costa Rican Legislative Assembly until March, 1984. PACD is scheduled for April 1988.

D) EVALUATION METHODOLOGY -

Team Composition - Leonard Kornfeld.

Host Country Participation - None mentioned.

Time Period - The evaluation covered fifty-three work days from December 1986 to February 1987.

Methods - Examination of project and related PL480 Title I local currency files; interviews with twenty-seven GOCR officials from all implementing agencies and municipalities, officials from 8-10 community development associations, approximately fifty IDA beneficiaries and pertinent AID officials. Most of the road sections being constructed with Project and PL480 funds were driven over. Progress data was obtained from different participating GOCR agencies.

Cost - The evaluation contract with La Marsa was for \$14,586.

Support Arrangements - Completion of the evaluation required fifteen person-days of Mission professional staff and five person-days of Mission support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The Loan Agreement was authorized on July 27, 1983 and signed two days later. However, it took until March 1984 (six months later than anticipated in the PP) for the Agreement to be ratified by the Gazette. The Grant Agreement was delayed until March 1984 presumably because of the delay related to the Loan Agreement.

Validity of Major Assumptions - (1) In the Road Improvement Component, the assumption about the time required for executing a host country contract proved to be extremely optimistic. (2) In the titling component, it was incorrectly assumed that there were large concentrations of untitled small and medium farmers and it would be possible to select large blocks of land containing the target group of 1,000 untitled farmers; in addition, it was assumed that titling implementation problems affecting AID's 034 project had been or were about to be resolved and the Northern Zone would benefit from this experience, with implementation proceeding smoothly.

Input Delivery - The process of drafting, negotiating and signing the local currency counterpart agreements experienced "inordinate and unjustifiable delays." However, GOCR counterpart being provided will, by the PACD, exceed initial projected levels by over \$1 million.

Output Attainment -

<u>Component</u>	<u>2/87 Actual</u>	<u>4/88 Target</u>
Roads Upgraded - kms.	104	152
Community Projects	73	65
Community Development Associations	21	55
Feasibility Studies & Pilot Activities	5	2
Land Purchased - hectares	15,000	4,291
Land Purchased - new families settled	700	340
Non-IDA small/medium farmers titled	1,000	124

Purpose/Indicators Progress - Not supplied.

Impact - The project in general has had a positive impact on the attitudes of inhabitants of the Northern Zone. There is a sense of optimism about the future, and there has been visible change in terms of physical infrastructure, organization, and mobilization.

Contribution toward Planned Goal - It is too early to assess whether the project is achieving its goal of "assisting the economic stabilization and recovery of Costa Rica." The Project Paper did not anticipate that there would be much, if any, actual development occurring during the life of the project.

External Factors - The only external factor mentioned was the delay in ratifying the Loan Agreement and processing the Grant Agreement.

Unplanned Effects -

Lessons Learned - Allow ample time for formal ratification of the Grant Agreement before any significant activity is to begin. The legalistic bent of GOCR officials precludes preparatory activity in the period between signature and ratification.

Project Title: Rural Development Management

Project Number: 517-0125

Mission: Dominican Republic

PACD: 12/85

Date of Evaluation: 12/84

LOP: \$1.1 million

Type of Evaluation: Interim

Host Country Contribution: None

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To establish an institutional capability to provide in-service, in-country training opportunities to upgrade management skills of public and private sector officials working in agriculture and rural development.

Findings - For the most part, the training program of the Center for Administration of Rural Development (CADER) is appropriate and effective. Its seminars and workshops have provided a forum for informed debate and rational decision-making regarding problems of considerable significance. They have involved participants from a wide range of political, economic and social levels. In terms of institutional development, CADER currently has the administrative capability and the professional staff to effectively implement their present training programs. However, there is a high level of personnel turnover because salary levels and other incentives are not adequate. CADER has the makings of an institution that can provide the GODR and donor agencies with cost-effective results, particularly in the area of policy dialogue and improved administration of rural development. However, it needs more time to garner support from the GODR and to establish a core funding base.

Lessons Learned - None supplied.

Achievements/Impact/Problems - CADER has developed a training program consisting of seminars, workshops, a five-week administration training course, and a 5-month diploma program.

This project appears to be a cost-effective way of improving management capacity. CADER has risen to opportunities very effectively, especially in working with the Dominican Congress on topics that are to be the subjects of legislation affecting the agricultural sector.

Without continued outside support, CADER will cease to exist. It will not become financially self-sufficient based on revenues it might generate from the provision of training courses and seminars for public sector institutions and consulting services. CADER is basically a research and educational institution of a design and function which will not permit it to become self-supporting through the sale of its services.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - None mentioned.

Constraints - The training is targeted at those people with administrative responsibilities in agriculture and rural development but who have no training in how best to carry out these responsibilities.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - To achieve the purpose of providing training capability in-country, this project established a permanent center to provide seminars, diploma courses, and in-service training. CADER is oriented to train persons who have administrative responsibilities in the agricultural sector, but have not previously had the opportunity to obtain training in administration.

Host Country Implementation - CADER was established within the Instituto Superior de Agricultura (ISA). ISA was created as a public institution in 1962 to support the development of the agricultural sector through education, training, research, and advisory services.

Components - The project was to establish an institution that would provide a variety of training courses to administrators and managers in agriculture and rural development. These courses include seminars, workshops, a five-week administration training course, and a 5-month diploma program.

Resources - \$1.1 million is the AID contribution. No mention is made of counterpart resources, though the Dominican Republic government paid the salaries of local staff.

Timeframe/coordination - The Grant Agreement was signed in June 1981 to continue project funding until 12/84. The PACD has since been extended to 12/85.

D) EVALUATION METHODOLOGY -

Team Composition - Team members Jose Jacome, John Strasma, and Clemence Weber had backgrounds in institutional development, business administration, economics, agriculture, education, and rural development.

Host Country Participation - None mentioned.

Time Period - December 4-21, 1984.

Methods - The team gathered information through formal and informal interviews, discussions, review of written materials, and the observation of a seminar and a workshop.

Cost - Not supplied.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - "Initially, there were long delays in moving PL480 funds through the GODR and getting actual disbursements. These funds have been moving smoothly since May 1984." No further details are given. The construction of the graduate dormitories was running a year behind schedule, but was nearing completion at the time of the evaluation.

Validity of Major Assumptions - Not mentioned.

Input Delivery - Inputs include physical infrastructure, staff training, technical assistance, and funds for operating costs and equipment. The project experienced a shortage of vehicles and extensive delays in petty cash and check-writing procedures.

Output Attainment -

	<u>PLANNED (12/85)</u>		<u>ACTUAL (12/84)</u>	
<u>Case Studies</u>		<u>#</u>		<u>#</u>
Dominican (Written)		118		104
Foreign (Incorporated)		203		349
<u>Training Activities</u>	<u>#</u>	<u>Participants</u>	<u>#</u>	<u>Participants</u>
Workshops and Seminars	15	590	23	1443
5-week Adm. Course	14	840	6	222
5-month Diploma Program	4	160	0	0
<u>Construction</u>		<u>#</u>		<u>#</u>
Office Building		1		1
Classroom Building		1		1
Cafeteria		1		1
Dormitories		3		3 (2/85)
<u>Staff Training</u>		<u>#</u>		<u>#</u>
MBA's		8		5
Short-term Administration		6		6
Short-term Agriculture		4		3

(Source: Rural Development Management (517-0125) Evaluation Report, Annex 4. 12/84.

Purpose/Indicators Progress - Though the training progress during project life has been very good, there are serious questions about project sustainability. First, the CADER professional staff has experienced high turnover rates due to low salaries and insufficient incentives. Coupled with the lack of a recruitment or participant training component for CADER, this means that few, if any, qualified professionals will remain within two years. Second, there are no permanent sources of funding or indications that fees from CADER training courses will cover operating costs. The project must obtain other sources of funding and increased GODR support to continue past PACD.

Impact - CADER's seminars have potential immediate impact on national problems through the promulgation of dialogue with the GODR. "Three examples of this are: the likely promulgation of two new laws to change sector policy, a substantial increase in coffee export quotas assigned to producer associations, and a fifty percent increase in the price paid to tobacco producers."

Contribution toward Planned Goal - Not supplied.

External Factors - None mentioned.

Unplanned Effects - None mentioned.

Lessons Learned - None supplied.

Project Title: Natural Resources Management
Project Number: 517-0126 **Mission:** Dominican Republic

PACD: 7/86 **Date of Evaluation:** 4/86
LOP: \$11 million **Type of Evaluation:** Interim
Host Country Contribution: \$10.2 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To increase hillside farmer income while at the same time reducing on-farm erosion which results in downstream sedimentation and flooding.

Findings - The evaluation found that erosion rates are not as high as predicted, and hillside farms account for only small part of that erosion. Natural erosion and infrastructure such as roads account for most of it, so project payoffs have been less than expected both to farmers and to downstream water users. It is recommended that the project replace the limited strategy of soil erosion control with a broad strategy of natural resource protection and management, to be applied on a watershed basis.

The assumption that the task of resource protection is crucial to the long-run economic stability of the entire nation was found to be true, and the institutional strengthening provided to the government by the project has served a highly useful purpose. The evaluators recommend that the project focus on creating within the Governmental structure a firm foundation for itself within the Subsecretariat of Natural Resources (SURENA).

Lessons Learned - (1) Continuing investments in longer range goals such as environmental conservation may be endangered by short-term economic pressures. (2) When financial supports are limited, there is special reason to review the array of projects completed, in process, or planned, in order to avoid duplication and waste of scarce resources. (3) In spite of comprehensive review, project objectives may occasionally be overstated or overambitious. It is important, when this is recognized, that repairs be made not only in revising measures of project success, but also in determining the fundamental reasons for the initial expectation. (4) Careful documentation and early, formal review of design modifications or of interpretation made can protect against drift away from original aims, toward overemphasis on shorter run "brush fires," or toward inappropriate reorientation of funds. (5) To give low priority to long-range planning because local managers do not normally use it or believe in it is to deny opportunity to move to a higher level of development and efficiency. (6) Project technical activities require careful adherence to principles of scientific method. Training should always be sufficient to ensure that methodologies employed are adequate.

Achievements/Impact/Problems - A nucleus of well-trained, capable and motivated people is now at work; there is growing

public awareness of the significance of the resource base and of the reasons for conserving it; a structure is in place for coordinating the people, materials, and information needed to do conservation work in the field.

According to the PES, development impact was not included in the scope of work of the evaluation because it was believed to be too early in the project life to realize any measurable impact on the target population.

Recurring problems across the sixteen individual activities, for which the major segments are listed below in the "Components" section, include a consistent lack of coordination with agencies having related interests, lack of effective long-term planning, drift away from original goals and purposes, inadequate support for field personnel, unmet training needs, and occasional redundancy.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - A Comprehensive Resource Inventory and Evaluation System (CRIES) evaluation of 1977 led to an AID Country Environmental Profile (CEP) in 1979 stating that the need for watershed protection and rehabilitation was so serious as to constitute a national emergency. A major CEP recommendation was made for an integrated land and water management plan for each major watershed.

Constraints - Natural resource degradation was attributed to erosive land use and production practices on steep slopes, highland forest destruction for pasture production, cutting of dry forest for charcoal and firewood production, wildlife decimation, and pollution of fish habitat. Taken together, these created erosion, flooding, pollution, lower plant productivity, loss of soil nutrients, irregular flows of irrigation water, and silting of dams which in turn culminated in generally lowered crop yields and declining income.

Relative Priority/Mission Objectives - The major concern of AID/Dominican Republic's agricultural strategy had been the productivity and quality of life of the small farmers. After the above-mentioned surveys, the protection of the natural resource base was added to this strategy. AID chose to focus this project on small hillside farms because erosion there was rapid, marginal return to development capital was expected to be extremely high, and widespread poverty could be directly attacked.

C) PROJECT DESIGN -

Strategy - As a means of making best use of limited funds to achieve the resource protection objectives, project strategy focused on soil stabilization on small hillside farms to protect large downstream investment in irrigation and in power generation by controlling runoff and soil losses. At the same time, it was hoped that this would improve crop yields on the hillside farms

and preserve the productive capacity of their soils into the foreseeable future.

Host Country Implementation - The project was located in the Office of the Undersecretary of Natural Resources within the Ministry of Agriculture. It coordinated and strengthened activities in a number of departments, including Wildlife, Natural Resources Inventory, Soils and Waters, Environmental Education, Training, and Fisheries.

Components - (1) Institutional strengthening in the areas of cartography, agroforestry, forestry, and watershed management planning, environmental education, agricultural zoning, erosion and water quality monitoring, legislation and policy development, marketing studies, small farmer association studies, road construction planning, and interagency administration strengthening; (2) Soil and water conservation activities for two to four critical watersheds, such as soil survey and interpretation, farm conservation, incentive packages, watershed protection, and hillside farming systems research.

Resources - \$11 million of AID funding and \$10.2 million of counterpart funds.

Timeframe/coordination - 7/81 - 7/86.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included Chief of Party and Natural Resource Economist George Armstrong, Environmental Education Specialist J. Douglas Cuillard, Natural Resource Management Specialist Joseph Goebel, Rural Sociologist/Anthropologist James Jones, Institutional Analyst Helena Landazuri, Rural Sociologist Jose Roques, and Credit Analyst Alberto Veloz.

Host Country Participation - Mr. Roques and Mr. Veloz are citizens of the Dominican Republic.

Time Period - The evaluation lasted for six weeks from January through March, 1986.

Methods - Not supplied.

Cost - The evaluation contract with Ronco Consulting Corp. was for \$94,199.

Support Arrangements - Completion of this evaluation required ten person-days of Mission professional staff and five person-days of support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Though the project agreement was signed in August 1981, it was not until Fall 1982 that the Conditions Precedent were met regarding the institutional strengthening component; it was April 1983 and July 1984 that such conditions were met for the Ocoa and Las Cuevas watersheds respectively. The explanations provided by project staff regarding such delays all revolve around bureaucratic constraints and budgetary allowance delays by local government and USAID.

Validity of Major Assumptions - The evaluation found that erosion rates were not as high as predicted, and hillside farms account for only a small part of that. Natural erosion and infrastructure such as roads account for most of it, so project payoffs have been less than expected both to farmers and to downstream water users.

The assumption that the task of resource protection is crucial to the long-run economic stability of the entire nation was found to be true, and the institutional strengthening provided to the government by the project has served a highly useful purpose.

Input Delivery - Delays in funding monitoring activities; inadequate availability of credit for the small farmer; delays in ordering and delivery of equipment, supplies, and transportation; and limited training of personnel have slowed project operations.

Output Attainment - Well trained personnel have created maps that are reliable in both the Ocoa and Las Cuevas watersheds. The core watershed planning document was written by extranationals, hence losing much of its potential impact as a capability strengthening device. Implementation of training and support assistance in environmental science has created an organizational structure and trained staff with proven capability to perform the environmental education function. The development of in-country forestry planning and management capability was constrained by a shift in the program away from Dominican training and toward reliance on technical assistance for major planning and programming inputs. The Secretariat of Public Works and Communications has responded effectively through workshops and practical training to strengthen the design and planning of road construction in line with soil and water conservation goals. The agricultural zoning team, though enthusiastic and motivated, did not receive proper training nor adequate time to complete their task to meet the original goals. The collection, control, and interpretation of soil and water data is now ongoing and effective. The review and summary of existing natural resources legislation is complete and well-done; however, the recommendation of model legislation will require strong additional input and some time to complete. One marketing study has been conducted covering eight major crops in Ocoa, but the overall task of implementing marketing surveys lacks direction. No small farmer association studies have been conducted. The project has generated an administrative mechanism which is capable of handling national and watershed activities for government, but which at present has much of its attention

centered on the resolution of internal issues and problems as a means of maintaining and increasing its own efficiency.

The soils survey team is the first team to enter new watersheds to provide a basis for decisions to be made by several other project activities, but their training needs to be increased to provide better services for potential users of their materials. The farm conservation training system is overly simplistic, spread too thinly, and plagued by logistical problems, failing to give farmers adequate technical support to develop a complete farm plan.

Purpose/Indicators Progress - None mentioned.

Impact - According to the PES, development impact was not included in the scope of work of the evaluation because it was believed to be too early in the project life to realize any measurable impact on the target population.

Contribution toward Planned Goal - The main goal is to assist the Government of the Dominican Republic in establishing a soil and water conservation program which will bring the currently extremely high erosion and sedimentation rates under control within two decades.

External Factors - None mentioned.

Unplanned Effects - None mentioned.

Lessons Learned - (1) Continuing investments in longer range goals such as environmental conservation may be endangered by short-term economic pressures. (2) When financial supports are limited, there is special reason to review the array of projects completed, in process, or planned, in order to avoid duplication and waste of scarce resources. (3) In spite of comprehensive review, project objectives may occasionally be overstated or over-ambitious. It is important, when this is recognized, that repairs be made not only in revising measures of project success, but also in determining the fundamental reasons for the initial expectation. (4) Careful documentation and early, formal review of design modifications or of interpretation made can protect against drift away from original aims, toward overemphasis on shorter run "brush fires," or toward inappropriate reorientation of funds. (5) To give low priority to long-range planning because local managers do not normally use it or believe in it is to deny opportunity to move to a higher level of development and efficiency. (6) Project technical activities require careful adherence to principles of scientific method. Training should always be sufficient to ensure that methodologies employed are adequate.

Project Title: Forestry Sector Development
Project Number: 518-0023

Mission: Ecuador

PACD: 3/88

Date of Evaluation: 9/86

LOP: \$15.35 million

Type of Evaluation: Interim

Host Country Contribution: \$7.25 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The purpose is to strengthen Ecuador's public and private sector institutional capacity to develop and utilize the country's forest resources in a rational manner. The project is expected to enhance the Government's capability to assist and support private and public sector initiatives in the development and management of production forests and on-farm forestry, and initiate development of public-sector capacity to manage protective forests effectively.

Findings - Poor project management has been the principal limiting factor in project success. The principal causes for this are: (1) fragmented project design and technical assistance effort because of an unclear definition of institution-building, a PP that suggests too broad a range of forestry activities, and loose technical assistance contracts; (2) a higher priority placed on technical than management expertise; no one was hired on the technical assistance team with the background, interest and mandate to develop, install, and train the National Forestry Division (DINAF) to use a system to generate, fund, and monitor forestry subprojects; (3) a failure on DINAF's part to provide satisfactory counterparts on a continuous basis, resulting in poor working relationships among Ecuadorian institutions, AID, and members of the technical assistance team. The subproject proposal process was poorly designed, and the project's coordination of forestry activities is stalled due to the lack of a system for generating and managing subprojects. AID, the technical assistance team, and DINAF share in the management responsibilities for the limitations on project success.

Lessons Learned - None mentioned.

Achievements/Impact/Problems - In institutional strengthening, solid experience and training were provided to DINAF in many technical areas; however, little assistance was delivered in the crucial areas of managing subprojects, laboratories, and diagnostic facilities.

In productive forestry, 1770 of a targeted 10,000 hectares of productive forestry land was established. Equipment was supplied for a sawmill, and a botanical study was still in progress.

For protective forestry, the project paper provided for strengthening the capacity to delimit, classify and develop management plans for protective forests. Thus far, progress has been made in preparing and implementing a management plan for some land and in purchasing equipment for forestry mapping.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - The project is targeted at improving research and links between public and private sector entities as a means of protecting, preserving, and utilizing Ecuador's forestry resources. The project paper was based on a number of studies commissioned by AID. The large number of separate studies partly explains the great number of activities included in the project paper.

Anticipated Constraints - The transformation of DINAF from an implementing to a planning and management agency relied upon a strong commitment to its altered role among DINAF, technical assistance, and AID personnel.

Relative Priority/Mission Objectives - No Project Evaluation Summary II (PES II) was included with this evaluation, making it difficult to determine the relative priority of this project. The 1988/89 Action Plan mentions AID/Ecuador's "limited involvement in natural resource management, principally to ensure that the country's future productivity is not undermined by poorly planned exploitation of Ecuador's natural resources."

C) PROJECT DESIGN -

Strategy - DINAF was to develop from an implementation agency into a coordination agency through a "subproject model," in which DINAF would solicit subprojects proposed by other institutions, supplying funding and advice to the best proposals.

Host Country Implementation - Success relied upon the provision of highly qualified counterparts to participate in project management.

Components - The three interrelated components are: institutional development of the National Forestry Program and other forestry institutions; productive forestry research and field demonstrations; protective forestry and watershed management.

Resources - Project expenditures include \$6.5 million in loan funds and \$1.6 million in grant funds (primarily for technical assistance) to supplement \$7.25 million in Ecuadorian government contribution.

Timeframe/coordination - The project was approved in August 1982, with the loan agreement signed in September. The first disbursement from AID arrived in August 1983. The PACD was extended from 12/87 to 3/88.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was carried out under contract with Associates in Rural Development by Dr. Timothy Synnott, team leader and protective forestry and agroforestry specialist; Dr. Roger Popper, institutional strengthening and project management specialist; and Mr. John Andrews, specialist in productive agroforestry. The fourth member of the evaluation team was a rural sociologist, Dr. Jorge Uquillas, under a direct contract with AID/Ecuador.

Host Country Participation - Rural sociologist Dr. Uquillas, mentioned above, is an Ecuadorian national.

Time Period - The evaluation team spent five weeks working together in Ecuador from April 28-May 30, 1986. Drs. Synnott and Popper spent an additional week in Ecuador debriefing DINAF and AID personnel, and revising the report based on comments made by AID staff.

Methods - The evaluators reviewed documents related to or produced by the project, as well as conducting interviews and holding discussions with people in Ecuador who are either directly or indirectly involved in project activities.

Cost - The evaluation cost \$71,000 drawn from project budget loan funds.

Support Arrangements - Completion of the evaluation required fourteen person-days of Mission professional staff and three person-days of support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The principal project advisor arrived in April 1983, and the letter inviting subproject proposals for DINAF management was sent out only one month later by the DINAF director. This gave little time to design a project generating system. The letter itself gave little instruction as to proposal format.

Validity of Major Assumptions - Four assumptions made during design have proven to be incorrect, with a very negative effect on the achievement of project objectives: (1) it was feasible and realistic, both bureaucratically and legally, to change DINAF's role to coordination; (2) DINAF would be willing to relinquish implementation in favor of a coordination and policy role; (3) DINAF and other government institutions would be willing and able to provide sufficient numbers of qualified counterparts; (4) DINAF would be able to provide continuous leadership at top administrative levels.

Input Delivery - Technical assistance has consisted of between one and three long-term advisors, and numerous short-term

consultants; a total of 24 technical assistance staff have been employed.

The project has only had a full-time coordinator at DINAF for a total of 15 non-continuous months. Throughout the project, DINAF has not always provided promised counterparts. This has led to the accusation of other agencies that DINAF has not paid proper attention to this project, resulting in interagency squabbling and weak working relationships.

Output Attainment - In institutional strengthening, solid experience and training were provided to various forestry-sector organizations in Ecuador in many technical areas such as reforestation, watershed, and nursery management. However, little assistance was delivered in the crucial area of DINAF management of subprojects, laboratories, and diagnostic facilities.

In productive forestry, 1770 of a targeted 10,000 hectares of productive forestry land was established. Equipment was supplied for a sawmill, and a botanical study was still in progress.

For protective forestry, the project paper provided for strengthening the capability to delimit, classify and develop management plans for protective forests including 560,000 hectares of watershed land. Thus far, progress has been made in the preparation and implementation of a management plan for some land, and the purchase of equipment for forestry mapping. Field demonstrations of protection with natural vegetation have not been implemented.

Purpose/Indicators Progress - The project has achieved its purpose of transforming DINAF to a management/coordinating agency only to a very limited extent because neither DINAF nor the technical assistance team emphasized it. Though DINAF has approved six of thirty subprojects considered, no system has been established to generate, select, approve, fund, and supervise subprojects.

The project has enhanced the research capacities of selected foresters and given research experience in several subprojects. However, little progress has been made in improving DINAF training capacity. Training in project design and analysis consisted of one two-week seminar, which was a good beginning, but there has been no follow-up.

Technical assistance delivery capacity was increased at the Napo district office, but only with significantly higher manpower and equipment costs which would prohibit implementing the model on a wider scale.

The proposed improved information dissemination capacity has resulted in the publication of several issues of a forestry bulletin. Working relationships have been established with several government and academic institutions. A library on forestry issues in Ecuador has been established.

Impact - None mentioned.

Contribution toward Planned Goal - The goal of the project is to increase the contribution of the forest resource to Ecuador's national economy, and the well-being of its population.

The evaluators stated that it is too early to expect progress toward this long-term goal.

External Factors - A government economic austerity program (including a currency devaluation) has hindered the ability of the government to provide qualified counterparts to work in project management.

Unplanned Effects - Advice from the technical assistance staff helped save DINAF when the Ministry of Agriculture and Livestock wanted to dismantle it, resulting in streamlining DINAF from eight to four departments. Also, business given to the National Forestry Development Company through the project helped save that state-owned forestry enterprise from financial difficulties that might have led to its dissolution.

Lessons Learned - None mentioned.

Project Title: Community Based Integrated Rural Development
Project Number: 519-0215 Mission: El Salvador

PACD: 1/31/85 Date of Evaluation: 2/85
LOP: \$873,711 Type of Evaluation: Final
Host Country Contribution: \$1.04 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The project, which started in September 1979 under an Operational Program Grant to Save the Children Federation/El Salvador (SCF), had as its purpose to implement a program of Community-based Integrated Rural Development in the municipalities of El Sauce and Concepcion de Oriente in the Department of La Union. The grant of \$873,711 was to provide financial support for the general administration of the project, as well as training activities, local community development projects and the purchase of needed commodities. As a result of what were perceived to be significant successes of this project in improving the lives of the beneficiaries targeted, SCF was encouraged by USAID/El Salvador to develop a follow-on project proposal to finance an expansion of the Community Based Rural Integrated Development Program. (Note: The new agreement with SCF for the *follow on project* between USAID/ El Salvador and Save the Children Federation was signed on February 4, 1985 for a period of five years.)

Findings - The project demonstrated: significant gains in agricultural production and productivity; significant increases in family income due to agriculture and animal husbandry; significant improvements in family health and nutrition, especially of children; encouraging trends in school enrollment; a high level of self-help and positive attitude among the volunteer workers that "the program is the benefit"; broad coverage, including the dissemination of project technology and benefits to large numbers of indirect beneficiaries; the development of a significant number of competent, dedicated community leaders; effective project management, including a fairly sophisticated planning system and tight financial controls.

Lessons Learned - (This section of the evaluation report was not available for review.)

Achievements/Impact/Problems - It is estimated that 20,000 people in the impact area living in thirty-five communities were benefitted by the project interventions in the three sectors -- productivity (mainly agriculture), health/nutrition, and education. The program increased the average yield per manzana and average area planted. The evidence gathered by the Evaluation team basically supports the findings of previous evaluations that the project has effected significant improvements in the lives of the intended beneficiaries. The most problematic shortcoming of

the project is the failure to promote the institutionalization of the project with local human resources.

B) PROJECT RATIONALE -

Factors Leading to the Project's Selection - (from the PES, Part II). The contributions of this project are consistent with one of AID's overall goals of broadening the benefits of growth to increase the opportunity of the poor. The project directly impacted on AID's objective to expand health, community development, and training services to rural areas. This project supported Save the Children Federation efforts to improve socio-economic conditions of the poor in the rural areas of the north-eastern part of El Salvador.

Anticipated Constraints - Many constraints affecting projects implemented in El Salvador are external such as: guerrillas, depressed economic conditions, restricted mobility, considerable risk to personal security. In addition, in the Concepcion and El Sauce municipalities one finds the outmigration to the United States; a situation which leads to instability in communities, a factor which accounts for some of the frequent high turnover rate among leaders and volunteers in the program.

Relative Priority/Mission Objectives - According to the PES, project contributions were consistent with one of AID's overall goals of broadening the benefits of growth to increase the opportunity of the poor. The project directly impacted on AID's objective to expand health, community development, and training services to rural areas. (see above "Factors Leading to Project selection").

C) PROJECT DESIGN -

Strategy - To improve the well being of the rural poor in the municipalities of El Sauce and Concepcion de Oriente by furnishing an Operational Program Grant to Save the Children Federation/El Salvador to implement a program of Community-based Integrated Rural Development in three basic areas (Health and Nutrition, Education and Literacy, and Agriculture and Cottage Industry) by providing financial support for the general administration of the project as well as training activities, local community development projects and the purchase of needed commodities.

Host Country Implementation - The project has been implemented by SCF/El Salvador with support under this project by USAID, Save the Children/Westport, and the Salvadorean Government (GOES).

Components - As indicated earlier, Save the Children Federation/El Salvador has implemented this program of Community-based Integrated Rural Development in three basic areas (Health and Nutrition, Education and Literacy, and Agriculture and

Cottage Industry) by providing financial support for the general administration of the project as well as training activities, local community development projects and the purchase of needed commodities.

Resources - Under the direct AID category, a total of seventy-eight projects had been funded up to the date of the evaluation for a total of C (colones) 918,068 broken down as follows: C 269,781 for twenty-one projects in the Health/Nutrition Sector; C 256,475 for nineteen projects in the Education Sector; C 44,070 for eight infrastructure projects; C 62,295 for thirteen cottage industry projects and C 285,447 for twelve projects in the agricultural sector. In dollar terms AID grant funding has been \$873,711 with a termination date of January, 1985. Of this total project amount \$785,862, or ninety percent of the total budget, has been expended, and a new project was in process.

Timeframe/coordination - This project was carried out in five years and four months (9/24/79 to 1/31/85). Because of the its success, the USAID has developed a follow-on project to expand this project's Community Based Integrated Rural Development (CBIRD) model to other regions in El Salvador. The follow-on activity is for five additional years and involves more than a 300 percent increase in the funding for SCF/El Salvador.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team was composed of Tonia Papke, Rupert Scofield, and John Hatch.

Host Country Participation - The host country did not have a member on the evaluation team.

Time Period - Three weeks during December, 1984.

Methods - Apart from the usual review of all pertinent reading material (reports, previous evaluations, budgets and plans), a field visit of approximately ten days was planned. This was not possible due to guerrillas taking over the village of Concepcion and sealing off the area to be visited. As a result the evaluation team retreated to Honduras by mule back, and returned to Santa Rosa. Concepcion remained sealed off, so interviews with selected promoters, community leaders and volunteers were held in Santa Rosa. Only three villages were visited in the project area before the team felt obliged to leave the project area.

Cost - The cost of the evaluation was not available.

Support Arrangements - Neither the Evaluation or the PES contained any information on the degree of support provided the evaluation team.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - While a number of suggestions for improvement were made in the evaluation, none of them was major, and it appears that the project proceeded more or less on schedule. The only component which did not produce hoped-for results was the cottage industry component, which failed to produce the anticipated increases in family income and other benefits.

Validity of Major Assumptions - Generally speaking, the evaluation team was extremely impressed with the accomplishments of the SCF program with regard to improving the quality of life of the rural poor living in the area. The accomplishments are all the more impressive when viewed against the background of unfavorable political, economic and environmental conditions prevailing in the region. As noted above, there was a failure of the cottage industry component to provide the benefits expected.

Input Delivery - This was not noted as a problem in the evaluation.

Output Attainment - It is estimated that 20,000 people in the impact area living in thirty-five communities were benefited by the project interventions in the three sectors -- productivity (mainly agriculture), health/nutrition, and education. The program increased the average yield per manzana and average area planted. Average total production among the members of solitary groups in the project is shown in the following manner:

Average Total Production (in quintales)

<u>Crop</u>	1982	1983	1984	% Change 82/84
Corn	29.9	43.4	78.9	164%
Sorghum	<u>13.7</u>	<u>22.1</u>	<u>27.0</u>	<u>97%</u>
Total	43.6	65.5	105.9	143%

Child vaccination, deparasitizing, and primary health care helped reduce child morbidity and mortality. The primary school annual within-grade dropout (comparing initial and final registration) decreased from thirteen percent to nine percent and promotion rate increased from seventy-five percent to seventy-nine percent between 1983 and 1984.

However, less success was obtained in creating permanent, community-level organizations able to plan and implement activities without SCF support in the health and nutrition areas.

Purpose/Indicators Progress - Data was limited in some subjects, although SCF had made serious effort to assemble or prepare baseline data in important areas. Section "Output Attainment" above indicates some of the concrete indicators of progress.

Impact - It is estimated that 20,000 people in the impact area living in thirty-five communities were benefited by the project interventions in the three sectors of productivity (mainly agricultural), health/nutrition, and education. The program increased the average yield per manzana and average area planted. The evidence gathered by the evaluation team basically supports the findings of previous evaluations that the project has effected significant improvements in the lives of the intended beneficiaries.

Contribution toward Planned Goal - According to the PES, contributions were consistent with one of AID's overall goals of broadening the benefits of growth to increase the opportunity of the poor.

External Factors - Many constraints affecting projects implemented in El Salvador are external such as: guerrillas, depressed economic conditions, restricted mobility, considerable risk to personal security. In addition, in the Concepcion and El Sauce municipalities one finds the outmigration to the United States; a situation which leads to instability in communities, a factor which accounts for some of the frequent high turnover rate among leaders and volunteers in the program.

Unplanned Effects - Difficulties in carrying out the original evaluation plan due to guerilla activity.

Lessons Learned - (This section of the evaluation report was not available for review.)

Project Title: Agrarian Reform Credit
Project Number: 519-0263 Mission: El Salvador

PACD: Not supplied. Date of Evaluation: 9/85
LOP: \$76.03 million Type of Evaluation: Interim
Host Country Contribution: \$36.1 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To increase the availability of credit to the agrarian reform and small farm sectors and to strengthen the long-run institutional capability of the Banco de Fomento Agropecuario (BFA) to provide such credit.

Findings - This project has been a qualified success in terms of the attainment of its basic objectives. The financial and technical assistance to the BFA channeled through this project led to significant improvement in the financial viability and institutional capability of the BFA. However, for reasons that could not be fully anticipated at the time of the design of the project, such as the disturbed conditions prevailing in the country and the lack of continuity in BFA leadership, these accomplishments have fallen considerably short of expectations, particularly in terms of the strengthening of the institutional capability of the BFA. Nevertheless, with the experience of operations in the reform sector and as a result of AID financial and technical assistance, the BFA has matured to the point that it can sustain the process of improvement on its own, given determined and competent leadership.

Lessons Learned - Not supplied.

Achievements/Impact/Problems - The BFA is now a stronger institution than it was in 1980. The financial resources of this project not only have increased the loanable resources of the BFA but have also strengthened its capital structure and its liquidity position. The technical assistance extended to the BFA has improved its performance in key areas, such as finance, cash flow planning, accounting, loan processing, loan supervision and loan recovery.

The macroeconomic benefits of the AID assistance to El Salvador (including the Agrarian reform Credit Project) may be summarized as follows:

(1) The grant component led to the reduction of the deficit in the current account of the balance of payments while the loan component alleviated the capital account deficit. (2) The loan component partially financed the overall budget deficit, thus reducing the need for Central Bank (BCR) credit to the Central Government. (3) In the monetary sphere, the foreign exchange as well as the commodity assistance provided offsets to the credit expansion and thus helped contain the reduction in net international reserves. (4) The availability of increased external resources to the Salvadorean economy reduced the domestic demand pressure on prices and served to decelerate the inflationary pro-

cess; it also helped sustain production and employment, limiting the decline in economic activity up to 1983 and contributing to the economic recovery in 1984-85.

The administrative expenditures of the BFA have grown rapidly since 1980. There is need for effective action to restrain these expenditures and introduce more cost-consciousness in the operations of the Bank. This has been difficult with the rapid turnover in BFA leadership.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Adverse external factors, aggravated by internal conflict and unfavorable weather conditions, have in recent years led to a prolonged decline in income, employment, and economic activity in El Salvador, particularly in the agricultural sector. Within this environment, the Government of El Salvador has, since 1980, implemented an ambitious and wide ranging program of agrarian reform, with the basic objectives of promoting a more equitable distribution of land and agricultural income, achieving higher incomes and expanded employment opportunities in the rural sector, and stimulating increased and diversified agricultural production. It was recognized, at the outset, that critical to the attainment of these objectives was the provision of order for, and a supplement of funds to the credit resources for the agrarian reform program.

Constraints - The land reform program would bring about a massive growth in the number and volume of loan transactions. This would place a continuing strain on the operational capacity of the BFA in various stages of the loan cycle (loan processing, credit supervision, and loan recovery).

Given the large financing requirements of the public sector, credit policy is constrained by the need to contain the rate of inflation and the balance of payments deficits within tolerable limits.

Relative Priority/Mission Objectives - Nothing mentioned in the evaluation, but the 1988-89 El Salvador Action Plan states that AID's strategy regarding the agrarian reform is to decrease the distinction between the reform and non-reform sectors.

C) PROJECT DESIGN -

Strategy - Through financial and technical assistance, the project was to assist the BFA to provide credit to beneficiaries of El Salvador's agrarian reform program.

Host Country Implementation - The implementing agency for this project was the BFA.

Components - The project established lines of credit to co-operatives and small farmer beneficiaries of the land reform program, vehicles and equipment to assist in the management and de-

livery of this credit, and training and technical assistance support to the BFA in the areas of accounting, finance, computers, loan control, and farm planning.

Resources - AID provided a \$2.63 million grant and a \$73.4 million loan to augment \$36.1 million of counterpart credit availability.

Timeframe/coordination - The project agreement was signed in July 1980. By the point of evaluation (9/85), eight amendments had been signed and a ninth was pending. The amendments as a whole have had the effect of widening the beneficiary groups from the Phase I cooperatives to include, in addition, the Phase III beneficiaries and other small farmers. No information is given as to PACD.

D) EVALUATION METHODOLOGY -

Team Composition - Senior Advisor John Strasma, Team Leader and Senior Economist M. Haris Jafri, Senior Farm Credit Specialist Jose Arroyo, Farm Credit Cooperatives Specialist Jose Isaac Torrico, and Financial Analyst Dwight Bunce.

Host Country Participation - None mentioned.

Time Period - March 31 - June 29, 1985.

Methods - Review of available documents and statistics; meetings with officials of AID, GOES, and private sector institutions involved in implementing or assisting agrarian reform and providing credit to beneficiaries; meetings with and questionnaires administered to officials of banks and other credit institutions involved.

Cost - Not supplied.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The Government agencies (particularly the Salvadorean Agrarian Reform Institute, ISTA) involved in implementing the agrarian reform program have experienced numerous institutional problems, and there have been delays in the formulation and implementation of a coherent Government strategy towards the reform sector.

The loan recovery and portfolio control activity started late in 1983.

Validity of Major Assumptions - It was assumed that violence in the country would subside and that the new nationalized export marketing system would work effectively. Though neither of these

has been the case, the project has still achieved impressive results.

Input Delivery - Lines of credit were established at the BFA through AID and counterpart funding, vehicles and equipment were provided to strengthen loan processing and collection services. Technical assistance was provided by Servicios Tecnicos del Caribe (STC) to strengthen the management, accounting, and training capacity of the BFA.

Output Attainment - The BFA has moved from a small and simple organization into a large and complicated development institution with 1,828 employees and an operational budget of 47.15 million colones, serving approximately 532,000 people and handling around 380 million colones through a network of five zones and twenty-six agencies. The evaluators give the technical assistance team great credit for this.

They have produced no output in farm planning, which was included in the Logical Framework. The evaluators felt that it had not been a priority of the previous or present administration of the BFA.

Purpose/Indicators Progress - Credit to the Agrarian Reform Sector rose from 165.6 million colones in 1980 to 224.5 million in 1984, a growth of 35.5 percent. The BFA serves 48.8 percent of the Reform Sector Cooperatives, up from 35.5 percent in 1980.

Impact - (1) The grant component led to the reduction of the deficit in the current account of the balance of payments while the loan component alleviated the capital account deficit. (2) The loan component partially financed the overall budget deficit, thus reducing the need for BCR credit to the Central Government. (3) In the monetary sphere, the foreign exchange as well as the commodity assistance provided offsets to the credit expansion and thus helped contain the reduction in net international reserves. (4) The availability of increased external resources to the Salvadorean economy reduced the domestic demand pressure on prices and served to decelerate the inflationary process; it also helped sustain production and employment, limiting the decline in economic activity up to 1983 and contributing to the economic recovery in 1984-85.

Contribution toward Planned Goal - The project goal is to improve the socio-economic well-being of the poor in El Salvador. The sub-goal is to maintain agricultural production and earnings in the agrarian reform sector. Balance of payments support was provided in the form of inflow of dollars as well as commodity imports under PL 480. Direct budget support in the form of grants reduced the current account deficit of the Central Government budget.

External Factors - The civil war, continuing at a larger scale than was expected, has disrupted and hindered project activities. The instability has unsettled the business and financial community both at home and abroad, leading to erosion of private

sector confidence as evidenced by reduced investment, suspension of foreign commercial credit facilities and massive capital flight, especially during 1979-80. In addition, it has caused severe damage to the infrastructure, with significant disruption of the productive apparatus, and brought about a substantial displacement of population.

There has been a decline in the export prices of agricultural products and the overvaluation of the exchange rate, which reduces the incentives for production for export.

Unplanned Effects - Recipients in the conflict areas have been able to maintain and even slightly increase their share of the loan portfolio; surprisingly, the loan delinquency rate has turned out to be lower among these farmers.

Lessons Learned - Not supplied.

Project Title: Agrarian Reform Sector Support
Project Number: 519-0265 (Grant)/519-T-032 (Loan)
Mission: El Salvador

PACD: 9/86 **Date of Evaluation: 3/86**
LOP: \$49.8 million **Type of Evaluation: Interim**
Host Country Contribution: \$28.6 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To increase the efficiency and effectiveness of the Agrarian Reform Program of the Government of El Salvador (GOES) by: accelerating the land transfer process; improving the ability of the government to provide essential resources and services to reform beneficiaries; increasing the managerial capacity of agrarian reform cooperatives and expanding private sector investment in enterprises directly related to the agrarian reform.

Findings - Land transfer is far behind schedule, the key problems being the lack of funds to compensate former owners, difficulties clearing liens against the properties, and an obsolete property registration system. Progress on developing cooperatives has been mixed; weaker cooperatives must be made independent of government support. Administrative and financial procedures are too slow and must be improved. Land reform beneficiaries are now too dependent on the government, which in turn is too dependent on U.S. support.

Lessons Learned - (1) Weaker cooperatives must be the focus of priority attention for the activities centered on strengthening cooperative management, with the intent to "wean" them as quickly as possible from subsidized and paternalistic public sector support. (2) Special attention must be given to reforming the existing marketing structure to provide adequate incentives to producers. (3) Support and stimulation of private investment beyond that provided by the Office of Rural Enterprise Development (ODER) is necessary to attract substantial private sector involvement. (4) External factors such as political change, delays in putting funding in place to compensate owners, and urgent legislative action needed to facilitate adjudication of title, can have important negative effects on progress.

Achievements/Impact/Problems - The continuity provided by the technical assistance team helped the new officials of AID who were rotated into El Salvador at the time and also helped GOES officials as the frequent changes took place on their side during land reform and a change in governments.

The ongoing civil war was the most damaging hindrance to project progress. The project has been impeded in or prevented from entering those rural areas affected by the war. Production has been seriously affected in several sectors, lowering foreign exchange receipts, and hence the amount of government funds available for the project.

Management, training, and extension activities appear to be well received, though unfulfilled demand remains high. Land transfer and enterprise development are far behind schedule.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Not supplied.

Constraints - Not supplied.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - The project broke agrarian transformation down into three stages: (1) "De jure" - land acquisition, titling, and compensation of former owners; (2) Consolidation - the properties and people affected by the reform are integrated into the country's economy through the provision of technical, technological, and financial services; (3) Acceptance - evidence by the public and private sectors that the reform is a political, economic, and social reality. The project's three components target the needs of participants in each of these three stages.

Host Country Implementation - The Land Transfer component was broken down into two phases. Phase I, which was to transfer land with registered definitive titles to cooperatives, would be implemented by the Salvadorean Institute for Agrarian Transformation (ISTA). Phase III, which would divide and transfer land and titles to individual farmers, would be implemented by the National Office for Agrarian Finance (FINATA). (Note: the evaluation does not mention what Phase II encompasses). Support services were provided by ISTA, the Agricultural Development Bank (BFA), and the Salvadorean Federation of Agrarian Reform Cooperatives (FESACORA) as well as the following divisions of the Ministry of Agriculture: the National Center for Agricultural Technology (CENTA), the National Center for Training (CENCAP), and the National Agricultural School (ENA). Rural Enterprise was developed under the Salvadorean Industrialists' Association (ASI).

Components - Acceleration of land transfer, technology transfer and support services (management, training, and communications assistance) to land reform beneficiaries, agroindustry and rural enterprise development.

Resources - The April 1983 Logical Framework stated that the project would receive \$34.9 million of AID funding, to be matched by \$24.3 million of counterpart funding. The PES attached to the evaluation, however, indicates funding elevated to \$49.8 million in U.S. contribution and \$28.6 million in counterpart.

Timeframe/coordination - September 1983 - September 1986.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team was composed of Alejandro Seminario, Agricultural Economist and Team Leader; Sociologist Rafael Grant; Management Analyst Silverio Vasquez; Lawyers Ricardo Castaneda and Hugo Flores; and Advisor/Economist Lawrence Posner.

Host Country Participation - Messrs. Castaneda and Flores, from the Salvadorean law firm Castaneda Salinas y Asociados, shared one professional position assessing the legal aspects of land transfer from a Salvadorean legal perspective and including that perspective in the evaluation.

Time Period - The evaluation was done from September through November of 1985.

Methods - Methodology included interviews with AID and Government personnel in San Salvador plus managers in seventeen agrarian reform cooperatives and 197 agrarian reform beneficiaries.

Cost - The evaluation contract with Clapp & Mayne was for \$184,162.

Support Arrangements - Completion of this evaluation required thirty person-days of Mission professional staff and five person-days of Mission support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The National Assembly ratified the agreement in nine days, but the conditions precedent were not satisfied until March of 1984 (six months later) and SETEFE payments began in May 1984. The unfamiliarity of the procedures for CENTA, CENCAP, and ENA resulted in some implementing agencies receiving their project funds ten months late.

Validity of Major Assumptions - The key assumptions according to the Logical Framework were political stability, GOES support to the agrarian reform process, and timely availability of resources. There have been weaknesses in all of these assumptions. The project has suffered from lack of funds for compensation to expropriated property-owners, inadequate agrarian reform legislation on liens and land registration, long delays to get funds even after approval of the project by the Legislative Assembly, the complicated GOES and USAID administrative procedures, and the political fights among the campesino organizations within ISTA.

Input Delivery - Overall, the evaluation team considers that the technical assistance (supplied by Servicios Tecnicos del Caribe) has been appropriate and timely. The continuity provided by the technical assistance team helped the new officials of AID

who were rotated into El Salvador at the time and also helped GOES officials as the frequent changes took place on their side during land reform and a change in governments.

Technical assistance sent during the presidential election was not as effective due to the unclear administrative direction in implementation agencies at the time. Slow disbursement of counterpart funds and complicated administrative procedures have been serious hindrances to the project.

Output Attainment -

<u>ACTIVITIES</u>	<u>TARGET</u>	<u>9/85 OUTPUT</u>
I. LAND TRANSFERS		
PHASE ONE		
Acquisition process completed	389	277
Titles adjudicated to co-op	315	126
PHASE THREE		
Professional titles	75,000	65,712
Acts of adjudication elaborated	41,000	15,835
Definitive titles registered	41,000	3,252
II. SUPPORT SERVICES		
A. ADMINISTRATION		
Managers	280	128
Accountants	280	113
B. TRANSFER OF TECHNOLOGY		
CENTA: Regional committees	4	0
Local committees	59	0
CENTA/CENCAP/ENA: New extensionists	140	140
CENTA: Non-traditional packets	40,000	0
Basic grain seeds (lbs.)	11,700	4,480
Fruit/veg. seeds (lbs.)	11,100	6,374
Fruits & plants (units)	600,000	439,000
CENTA: Campesino groups	3,500	2,368
C. TRAINING AND COMMUNICATIONS		
CENCAP/ENA: New extensionists trained	140	0
CENCAP: Campesino leaders trained	30,000	37,141
Radio programs	700	56
TV programs	50	10
Pamphlets & other materials	80	40
ENA: New professors	6	6
New courses	3	5
III. AGROINDUSTRY		
MAG: New entity - ODER	1	1
Feasibility studies completed	5	0
New enterprises established	25	0

Source: (Agrarian Reform Evaluation Report), Table A-1, p.5.

Purpose/Indicators Progress - (1) The objective of accelerating land transfer, with forty-eight percent of the project budget, has been the most disappointing. Of a targeted 41,000 ti-

titles to be registered, only 3,252 new titles have been awarded, with another 15,835 land transactions prepared. (2) Technology and support services, with fifty-one percent of the project budget, has seen the following advances: the targeted 140 extension agents have been hired, 2,380 of 3,500 borrower groups have been formed, and CENCAP has trained 37,141 campesino leaders, compared with the LOP target of 30,000. (3) Agroindustry and Rural Enterprise Development, with only one percent of the budget, initiated ODER in October 1985 to manage investment activities in this area.

Impact - Management, training, and extension activities appear to be well received, though unfulfilled demand remains high. Land transfer and enterprise development are far behind schedule.

Contribution toward Planned Goal - The project goal was to expand rural employment, raise incomes, and provide secure tenure rights for agrarian reform beneficiaries. No figures are given as to increases in rural employment or income, and land transfer is far behind schedule.

External Factors - The factor which has most affected the project has been the war, which has prevented the project from extending to those areas in which fighting is occurring and has lowered production, resulting in less foreign exchange to provide compensation to landowners.

The project was also affected by three electoral periods which delayed decision making, created uncertainties, and diverted government resources toward political campaigns.

The drop in the international prices of coffee, sugar, and cotton profoundly affected El Salvador's economy, lowering rural income and the incentives for agricultural investment and simultaneously reducing GOES financial capacity for project management. The inefficient agricultural marketing system of government agencies hindered progress by reducing farmers' revenue, ability to pay their debts, and incentives to invest in agriculture.

Unplanned Effects - None mentioned.

Lessons Learned - (1) Weaker cooperatives must be the focus of priority attention for the activities centered on strengthening cooperative management, with the intent to "wear" them as quickly as possible from subsidized and paternalistic public sector support. (2) Special attention must be given to reforming the existing marketing structure to provide adequate incentives to producers. (3) Support and stimulation of private investment beyond that provided by the Office of Rural Enterprise Development (ODER) is necessary to attract substantial private sector involvement. (4) External factors such as political change, delays in putting funding in place to compensate owners, and urgent legislative action needed to facilitate adjudication of title, can have important negative effects on progress.

Project Title: Rural Electrification II
Project Number: 520-0248

Mission: Guatemala

PACD: 12/85

Date of Evaluation: 9/85*

LOP: \$10.6 million

Type of Evaluation: Interim

Host Country Contribution: \$12.6 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To increase the number of electric connections in low income rural areas and to improve the Instituto Nacional de Electrificación's (INDE) capacity for continuing the extension of local power services to additional low income rural areas.

Findings - The project has increased the number of electric connections in low-income rural areas in the Western and Central Highlands, Eastern and South coast regions of Guatemala. However, almost all of construction under the project has suffered delays owing to the extremely slow and complex procurement procedures used by INDE. Six months prior to the PACD, only fifty-seven percent of the loan had been expended. Only a small portion of the training component has been used. The delay in installing the Quezaltepeque substation has failed to close the eastern subtransmission network, thereby affecting service reliability to the rural poor in this geographic region.

Lessons Learned - In terms of the difficulties that the project has experienced with an inadequate supply of materials and equipment, real implementation conditions should be carefully analyzed at the project design stage. In the case of procurement procedures, host institutions' procedures should be analyzed and if necessary modified or alternative solutions found. Optimistic assumptions regarding institutional arrangements will seriously affect any reasonable work plan and can dislocate the programmed sequence of project activities.

In rural electrification projects, productive uses of electricity programs should be implemented in the beneficiary communities immediately following completion of construction activities. This "productive uses" program should also include training in the safe use of electricity and maintenance of the system.

Achievements/Impact/Problems - INDE has increased the number of electric connections in low-income rural areas with 38,946 connections made as of June 30, 1985.

Approximately 20,000 of these new consumers live in 222 previously non-electrified villages, where a large number of families not immediately connected will be indirectly benefited by the availability of lines and networks for future service requests.

* Note: The full Evaluation Report was not made available, but an excellent Project Evaluation Summary (PES-Part I) was furnished.

The main constraint to project progress has been an inadequate supply of construction equipment and materials, caused primarily by the extremely slow and complex procurement procedures which INDE uses. Evaluators found that the average time between initiation of a purchase order and the receipt of the materials and/or supplies was between sixteen and twenty-four months.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - A principal constraint to development of Guatemala's rural areas is the lack of adequate infrastructure. Any private sector intervention in the rural areas, especially in industry or agro-industry, will have as a necessary prerequisite the existence of an adequate supply of electrical energy. The electrical service coverage of Guatemala's rural areas is the second lowest in Central America, seven percent.

Constraints - See "Factors" above.

Relative Priority/Mission Objectives - This project responds to AID/Guatemala's overall objective of improving productivity and incomes of poor rural families and to the specific objectives of increasing employment in rural areas and providing opportunities for off-farm employment, and supports the LAC and USAID goal of strengthening the private sector.

C) PROJECT DESIGN -

Strategy - Not supplied.

Host Country Implementation - The project was implemented by a small coordinating unit within INDE, the rural electrification division of the national electrical utility. This unit had been created during the predecessor to this project, Rural Electrification I.

Components - The project provided equipment, materials, and technical assistance for the construction of a power substation, distribution and transmission lines, and consumer connections.

Resources - Resources consisted of \$10.6 million in AID loan funds, matched by \$12.6 million in counterpart funds.

Timeframe/coordination - The Project Agreement was signed in May 1979 with a PACD of December 1985. Internal GOG approval procedures delayed initiation until July 1980, and the Project was reprogrammed with reduced construction targets in 1983.

D) EVALUATION METHODOLOGY -

Team Composition - Institutional Specialist James Lay and Engineering Specialist David Garnica.

Host Country Participation - None mentioned.

Time Period - July 14 - August 4, 1985.

Methods - The evaluators conducted interviews with staff from the Implementing Unit and INDE headquarters, regional and sub-regional INDE personnel, project consultants, and beneficiaries in the villages. They visited nineteen beneficiary communities where provision of rural electricity was in different stages of construction and four of INDE's regional or subregional offices. Along with direct interviews, they used two National Rural Electric Cooperative Association (NRECA) standard forms to collect data from NRECA's *Planning Model for Rural Electrification in Developing Countries*.

Cost - The evaluation contract was with NRECA for \$22,546.

Support Arrangements - Completion of the evaluation required five person-days of Mission professional staff support.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Although the Project Agreement was signed on May 21, 1979, internal Government of Guatemala approval procedures delayed initiation until July 1980. No further reasons were given for this delay.

Validity of Major Assumptions - The current average consumption per new customer is only seventy-five percent of the level assumed in the Project Paper. The evaluation team recommends that INDE undertake a "productive uses of electricity" education program as a means to accelerate the achievement of the project's goals.

Input Delivery - The main constraint for project progress has been an inadequate supply of construction equipment and materials. This has been caused primarily by the extremely slow and complex procurement procedures which INDE uses. The evaluators identified at least thirteen steps that are required between initiating the purchase request and final approval of the request. Evaluators found that the average time between initiation of a purchase order and the receipt of the materials and/or supplies was between sixteen and twenty-four months. INDE has requested that AID/Guatemala purchase substantial amounts of project equipment, materials, and supplies.

The counterpart financing contemplated in the original budget for certain line items, namely construction, consulting services, engineering, and administration, will probably not be

sufficient to reach project targets given the length of time required to complete construction.

According to the financial advance summary of the project, only 6.3 percent of the total amount programmed for training and technical assistance had been used by 6/30/85.

Output Attainment -

	<u>Target</u>	<u>Completed</u>	<u>Percent Completed</u>
Primary Distribution Lines	321 kms.	205 kms.	63.8
Secondary Distrib. Lines	901 kms.	758 kms.	84.1
Consumer Connections	70,000	38,946	55.6
Transmission Line	56 kms.	50 kms.	90.0
Substation	1	0	0.0

(Source: AID Project Evaluation Summary (Rural Electrification II), 1/31/86, page 4.)

Purpose/Indicators Progress - The project has progressed toward the objective of improving INDE's capacity to continue providing these services in the future. The small coordinating unit was strengthened and upgraded to an implementing unit which reports directly to the Deputy Manager for Works and Construction. The Unit has developed sufficient capacity to promote, design, supervise, and coordinate the Project components.

Impact - The available statistical information about the use of electricity by the new consumers and the qualitative observation of newly electrified populations indicate an initial favorable project impact in income and quality of life.

Contribution toward Planned Goal - The project goal is to "improve the quality of life of rural Guatemalans by increasing small farmer incomes and increasing employment in the rural areas." The evaluation states that "the contribution of the project towards the goals' achievement will be investigated by a final impact evaluation."

External Factors - The delay in initial implementation caused substantial cost increases which required a reprogramming of the Project, maintaining the number of new connections but reducing construction targets in terms of lines and networks.

In August 1984, due to serious failures in the construction of the Chixoy hydroelectric power plant, the Government of Guatemala decreed the intervention of INDE, resulting in administrative changes at all levels. The project was seriously affected by the changes since the new authorities were not aware of the project's needs, and INDE's attention was focused on this national generation system and gave low priority to other on-going projects.

Unplanned Effects - Due to an unforeseen growth of the demand in the department of Chimaltenango, the connection of new users produced an overload in the 2.5 MVA transformer of the

Chimaltenango substation. This overload required the procurement of a new 5 MVA transformer and auxiliary equipment with project funds which was not originally contemplated. Since the funds originally programmed for materials included a sufficient provision for cost increases, this extra item has not significantly affected project targets.

Lessons Learned - In terms of the difficulties that the project has experienced with an inadequate supply of materials and equipment, real implementation conditions should be carefully analyzed at the project design stage. In the case of procurement procedures, host institutions' procedures should be analyzed and if necessary modified or alternative solutions found. Optimistic assumptions regarding institutional arrangements will seriously affect any reasonable work plan and can dislocate the programmed sequence of project activities.

In rural electrification projects, productive uses of electricity programs should be implemented in the beneficiary communities immediately following completion of construction activities. This "productive uses" program should also include training in the safe use of electricity and maintenance of the system.

Project Title: Small Farmer Diversification Systems
Project Number: 520-0255 Mission: Guatemala

PACD: 1987 Date of Evaluation: 3/86
LOP: \$9.2 million Type of Evaluation: Interim
Host Country Contribution: \$6.67 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To strengthen public agricultural sector capacity to stimulate small farm diversification from basic grains to higher value diversified crops of greater labor intensity.

Findings - With seventy-five percent of project life past and thirty percent of funding utilized, reaching the 5,000 planned beneficiaries will be difficult due to the increase in costs related to production inputs. Among the major problems encountered are: coordination among the various institutions; lack of host country counterpart funding; slowness on contracting technical assistance; failure to concentrate the Project's resources within selected Diversified Districts in Region I; and tardiness in developing and following through on annual operation plans.

Lessons Learned - Projects designed with various agencies involved in project activities need to have each agency's institutional capability closely assessed. This would improve technical assistance inputs designed for the project and may cause designers to designate a lead agency to be responsible for overall coordination activities.

When a project is designed to strengthen the public agricultural sector's capacity, their current in-service training program (e.g. curriculum) should be assessed. The log frame should specify a timetable for identifying needed in-service training, developing curricula and conducting training so that local counterparts at the end of the project can continue these training activities.

Achievements/Impact/Problems - The program on model farms represents significant preparation for the wider-spread diffusion phase of the project. The progress in small farmer applied research and technology adaptation has been slow; research, especially for fruit and vegetable production, needs to be refocused from the research station to the model farms. To enhance progress in technology transfer and technical assistance, a massive training program for all key actors should be undertaken by the technical assistance team and trained host institution personnel. Progress in small farm diversification credit, linked directly to the selection of participating farms, has been noteworthy.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - This project was preceded in the Highlands by the Small Farmer Development Project, which included components providing for small-scale irrigation, soil conservation, social payments, and technical assistance. This project has enabled the extension arm of the Ministry of Agriculture dealing with fruits and vegetables to expand the programs of soil conservation and small-scale irrigation, and to include the promotion of vegetables and deciduous fruits as regular components of the program.

Anticipated Constraints - The project required the participation and cooperation of four Guatemalan government institutions with traditionally competitive roles.

Relative Priority/Mission Objectives - Guatemala's annual agricultural sector growth has steadily declined over the past five years. The vulnerability of Guatemala's economy is characterized by its dependence on a few key export crops whose profitability is controlled by international prices and marketing agreements. There is little Guatemala can do about the serious decline in world coffee prices and reductions in sugar export quotas for the U.S. market except to diversify from these products and thereby change its structure of production. (From the 1988/89 Guatemala Action Plan).

C) PROJECT DESIGN -

Strategy - Through research, extension, training, provision of credit, and marketing assistance, the project could assist small farmers to diversify their production.

Host Country Implementation - The project was to be implemented by the Guatemalan research and extension arms of the Ministry of Agriculture, along with the National Agricultural Development Bank. A coordinating unit was established within the Ministry of Agriculture to oversee implementation.

Components - (1) Small farmer applied research and technology adaptation; (2) Development of model small farms; (3) Small Farm Management and Credit Policy Studies; (4) Training of Guides and Promoters, with the creation of curriculum packages; (5) Revolving Loan Fund through the National Agricultural Development Bank.

Resources - Project funding included \$9.2 million in U.S. funding to match \$6.68 million in Government of Guatemala counterpart funds.

Timeframe/coordination - The project, which began in 1981, was scheduled for final input delivery in 1987.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team consisted of three Guatemalan specialists and two U.S. specialists from Texas Tech. The PES gave no other details on the evaluation team.

Host Country Participation - See "Team Composition" above.

Time Period - The evaluation was conducted in July and August of 1985.

Methods - The team reviewed project documentation and interviewed officials within the Ministry of Agriculture. In addition, the team visited and interviewed field staff from the various participating agricultural agencies and project field staff. The team also interviewed farmers having received Project inputs in six of the seven districts in which diversified farm programs were underway.

Cost - \$30,000.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - U.S. project funding was provided on a timely basis. However, the provision of technical specialists was greatly delayed.

Validity of Major Assumptions - The marketing infrastructure which was established under the Small Farmer Marketing Project (520-0238) was inadequate to absorb the anticipated diversified production to be generated under this project. The evaluation team anticipates that at full production the perishable nature of the products combined with the perceived inelastic demand in the domestic market might well result in the participating farmers' having lower farm incomes as a result of the project.

The assumption that diversified crops could meet export quality standards failed to take into account the lack of the tested new production technology at the initiation of the project and the time required to generate such technology in its absence.

Input Delivery - The long-term U.S. fruit specialist and the local long-term vegetable specialist positions are still vacant. Additional positions established in 1984 are still vacant, including a long-term U.S. marketing specialist and long-term Guatemalan marketing and irrigation specialists. A variety of short-term technicians are also needed to carry out the 1986 Operational Work Plan.

Limited availability of Guatemala government resources has severely hampered counterpart financed support. This lack of resources at the field level constitutes the weakest aspect of project implementation. The logistical support financed under the project has also been adversely affected by slow procedures,

both in procurement and utilizing the rotating fund. Local currency generations from PL 480 Title I programs are being utilized to assist in overcoming the shortfall in financial resources, and reimbursement procedures are being reviewed. In addition, the project grant and loan budgets do not cover the value-added tax which impacts on the availability of funds to completely liquidate the rotating fund.

Output Attainment - The Small Farm Management and Credit Policy Studies are ninety percent complete, ninety percent of the guides and promoters have been trained, and twenty-two 4-H Clubs (of a targeted twenty) have been established.

Total agricultural credit disbursed is proceeding according to schedule, with thirty-eight percent of funds loaned. Loans have exceeded expectations for vegetables and livestock, while lagging slightly in fruit and mini-riego.

Acreage planted is ahead of pace with twelve percent of the LOP targets achieved. Soil conservation techniques are proceeding at twice the expected pace.

Construction of the diagnostic laboratory is ninety percent complete. However, building of the farm research/storage building and the demonstration/training centers has not yet begun. Forty-four small farm models have been developed, already more than the targeted thirty-two.

Purpose/Indicators Progress - Institutional cooperation and coordination was the most difficult and troublesome aspect of the project. Only during the second quarter of 1985 had the inter-institutional work on the selected farms taken place.

Impact - Not supplied.

Contribution toward Planned Goal - The project goal is to improve the well-being of rural Guatemalans living in the North-western Highlands. The subgoal is to improve small farm management and increase the return to factors of production of the small-farm enterprise. While some progress has been made in improving the financial and nutritional status of the families living on the model farms, it has been modest since the farms have been operating less than six months.

External Factors - Due to an unstable political environment created by guerilla activity in the areas where the project activities were initiated, the number and location of project activities were altered. From 1982 through 1985, project sites were changed several times. In November 1985, twelve districts, which include thirty-seven municipalities, were selected in which to focus project activities. Such changes affected the validity of the baseline survey since not all current project sites were included in the survey data.

During 1984 and 1985, the country continued to experience an economic decline. Both the costs of production and the inflation rate increased. A parallel market exchange rate on some imported agricultural inputs increased production costs, thus affecting the size of production loans required for crop diversification.

Unplanned Effects - None mentioned.

Lessons Learned - Projects designed with various agencies involved in project activities need to have each agency's institutional capability closely assessed. This would improve technical assistance inputs designed for the project and may cause designers to designate a lead agency to be responsible for overall coordination activities.

When a project is designed to strengthen the public agricultural sector's capacity, their current in-service training program (e.g. curriculum) should be assessed. The log frame should specify a timetable for identifying needed in-service training, developing curriculum and conducting training so that local counterparts at the end of the project can continue these training activities.

Project Title: Agricultural Development Support II
Project Number: 521-0092 Mission: Haiti

PACD: 4/88 Date of Evaluation: 5/86
LOP: \$3.6 million Type of Evaluation: Interim
Host Country Contribution: None

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The purpose in the original Project Paper (5/78) was "to develop in the Ministry of Agriculture, Natural Resources, and Rural Development (DARNDR) the initial institutional capacity to provide Haitian institutions serving farmers and consumers of farm products with: (a) reliable statistical data, (b) reliable descriptions of rural economic and social systems and phenomena, (c) supply of optimal genetic material and appropriate resources to improve farm technology." In the amended Project Agreement of July 1983, this purpose was changed to "the establishment within DARNDR of the institutional capacity to conduct a farming systems improvement program through adaptive research, the development of a program of agricultural economics and statistical analysis of sufficient volume and reliability likely to support the country's agricultural development and increase farm production and income.

Findings - The project has established an on-farm testing program which has developed an agricultural information system at the departmental level with almost 600 replications in 1985. The project has also established an information management system, the Comprehensive Resource Inventory and Evaluation System (CRIES). The Farming Systems Research and Extension (FSR/E) component, however, has no interdisciplinary integration at the zone level. Teams do not include socio-economists and agronomists together, so there is little understanding of farmer problems and constraints. FSR/E teams have a limited understanding of rural institutions and their effects in the extension process.

Lessons Learned - (1) Farming systems research is not effective unless integrated interdisciplinary teams are formed. (2) It would have been more effective to begin research work in a single region in order to establish a methodology and model of FSR/E before expanding geographically. (3) When a project does not include a full time administrative position on the technical assistance team, the team leader cannot devote adequate time to technical tasks because he is constrained by administrative imperatives. (4) In order to be useful, quantitative survey work has to follow its own rules, profit from specialized expertise, and lead to a particular mode of analytical work.

Achievements/Impact/Problems - This project has had significant successes in terms of achieving potentially much higher levels of farm productivity. The rice and bean varieties successfully introduced and adapted in Cayes have begun to gain wide acceptance by farmers in a limited area.

The project was successful in contributing to the protection of fragile lands in Haut Cap Rouge; and in upgrading an entire secondary watershed in the Jacmel area by covering all land with a combination of drywalls, grass strips, and tree rows. The evaluation team was unable to quantitatively measure impact on farm productivity and therefore, rural income, primarily because project implementors concentrated on crop testing, paying little attention to monitoring impact of technologically improved practices at the individual farm level.

The Farming Systems Research approach was never actually used in this project. Other research is being pushed ahead despite serious flaws in technical survey work (wrong language; overcrowded, imprecise and unclear questions, demanding excessive interviewer training). There has been minimal pretesting and no data verification.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Farming Systems Research in Haiti began in the mid-70's, when the Ministry of Agriculture decided to incorporate on-farm testing and a concern for food production at the small farm level into the five year plan for 1976-81. After the first such project at Madian-Salagnac in 1976 met with little success, a new approach was adopted to learn what farmers are actually doing before trying to introduce changes.

This new systems approach was adhered to in several subsequent projects with differing focuses and funding sources. The USAID funded initiatives in Farming Systems Research began officially in 1984 with the arrival of this project team.

Constraints - The two basic constraints underlying and justifying this project are the low productivity of agriculture and the land erosion deriving from current farming practices.

Relative Priority/Mission Objectives - In general terms, the AID/Haiti mission strategy of the recent past has been to strive for greater protection of fragile lands by promoting integrated agricultural and infrastructure work in entire watersheds while also aiming at higher levels of income, nutrition, and health of the farm population. The project falls generally in line with this strategy.

In a significant departure from recent mission strategy, the project has virtually no contact or collaborative arrangement with PVO's.

C) PROJECT DESIGN -

Strategy - The project was to use an integrated farming systems research and information gathering, processing, and dissemination strategy to achieve its purposes.

Host Country Implementation - The project was originally located within the Centre de Recherche et Documentation Agricole and under the responsibility of the Faculty of Agriculture and Veterinary Medicine. Politically motivated changes in Ministry personnel led to a serious conflict of personalities. In 9/85, the project was physically and organizationally moved out of the faculty and into the Ministry of Agriculture. The project remains an independent unit attached to the Ministry, outside the Ministry's normal organization.

Components - (1) Farming Systems Research and Extension - with the rewritten Project Paper of 1982, this became on-farm adaptive FSR rather than the original plan of the development and support of a system of research stations. (2) Natural Agricultural Statistics. (3) Comprehensive Resource Inventory and Evaluation.

Resources - AID provided \$3.8 million in funding, seventy-five percent of which was for technical assistance. There was no host country counterpart.

Timeframe/coordination - The original project agreement was signed in 1978. Implementation was delayed for a variety of reasons until finally the project paper was rewritten in 1982. The first technical assistance team members arrived in 2/84, with a PACD of 4/88.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included team leader and sociologist Uli Locher, institutional analyst Jan Broekhuysse, agronomist Mimi Gaudreau, and agricultural economist John Lichte.

Host Country Participation - None mentioned.

Time Period - The evaluation was conducted from April 20 to June 1, 1986.

Methods - Methodology included a review of project documents and data gathered by the project; interviews with AID, DARNDR, project, and other involved institution personnel; and visits to research sites.

Cost - Not supplied.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Socio-economists were physically and organizationally separated from the farming systems component, because they were administratively and functionally together in one unit. This resulted in a situation where the farming

systems team were not interdisciplinary (mainly agronomic) and had little or no socio-economic input.

Validity of Major Assumptions - The evaluators state that "there is virtually no support in the recent major works on Haiti for the assumption that the Haitian government can and will provide services when given the necessary resources."

Input Delivery - Inputs included the provision of technical assistance staff skilled in Farming Systems Research and Development and in agriculture information systems development; the provision of funds for program operation, acquisition of facilities and equipment; training and participant training relating to FSR and information systems development.

Output Attainment - (1) Characterization of agricultural information systems: 4/84 project researchers conducted reconnaissance and quantitative surveys in each of the four zones using a fifty-one-page questionnaire and interviewing small groups of farmers and community leaders in each zone; these provide descriptions of the zones but do not identify farming systems within that zone. (2) Agricultural information collection instruments and procedures: survey instruments have been produced and some information has been collected on production and marketing, though the evaluators found this information insufficient to implement a systematic program. (3) Farming systems research instruments and procedures: as mentioned above, the original surveys were not extensive nor their results utilized to produce a farming systems research methodology; both farmer managed and researcher managed trials have taken place, but little attempt has been made to interpret the results and their implications for future adaptive research. (4) Agricultural technology: new strains of rice and beans have been developed. (5) Trained agricultural technicians, survey analysts, enumerators, and farmers: all of the groups have received some informal training through observation, but there has been little formal training in farming systems research. (6) Agricultural production and marketing information: information has been collected about marketing, production, land use, and socio-economic characteristics of farmers in various forms in a number of areas, but the evaluators are critical of each for a lack of thoroughness in data collection and analysis. (7) Institutions and institutional capability: an organization has been established and is carrying out on-farm trials, though it has yet to develop an effective extension service.

Purpose/Indicators Progress - Not available.

Impact - The project was successful in contributing to the protection of fragile lands in Haut Cap Rouge; and in upgrading an entire secondary watershed in the Jacmel area by covering all land with a combination of drywalls, grass strips, and tree rows. The evaluation team was unable to quantitatively measure impact on farm productivity and therefore, rural income, primarily because project implementors concentrated on crop testing, paying

little attention to monitoring impact of technologically improved practices at the individual farm level.

Contribution toward Planned Goal - The goal of the project was to strengthen the institutional capability of DARNDR to conduct a national program of agricultural production nationwide. According to the PES II, DARNDR has not yet established an adequate extension service, and the project does not command the requisite resources, human and financial, to allow it to function effectively as an extension agency.

External Factors - None mentioned.

Unplanned Effects - None mentioned.

Lessons Learned - (1) Farming systems research is not effective unless integrated interdisciplinary teams are formed. (2) It would have been more effective to begin research work in a single region in order to establish a methodology and model of FSR/E before expanding geographically. (3) When a project does not include a full time administrative position on the technical assistance team, the team leader cannot devote adequate time to technical tasks because he is constrained by administrative imperatives. (4) In order to be useful, quantitative survey work has to follow its own rules, profit from specialized expertise, and lead to a particular mode of analytical work.

Project Title: Goat Production Improvement
Project Number: 521-0181/2 Mission: Haiti

PACD: 5/87 Date of Evaluation: 5/86
LOP: \$1 million Type of Evaluation: Interim
Host Country Contribution: \$180,000

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To establish within the Ministry of Agriculture and Natural Resources and Rural Development (DARNDR) the capability to: multiply superior animals, adapt technology to local conditions and improve the traditional production system, train technicians and producers, deliver technical assistance and improved animals, promote and assist in the formation of nuclei family farmers who will breed improved animals, identify and assist in the establishment of credit and marketing mechanisms.

Findings - The project proposal was not realistic in its goals and objectives given the length of time it takes to implement a livestock development project. Increasing meat plus milk consumption will be difficult without an extended extension and education program. The project has reached the optimum foundation herd size in Phase I, the establishment of breeding stock of crossbred goats for distribution; it now should proceed to the technology transfer phase with reorientation to off-farm activities. The project has reached only thirty-nine percent of its targeted primary recipients. The distribution system of bucks to farmers has been inadequate for allowing follow-up. The effectiveness of the training programs for recipients is questionable. Concern exists about the commitment of the Ministry of Agriculture (DARNDR) to provide necessary support for the project. No advancement has been made in establishment of nuclei breeding stations for involvement of off-farm participants. The change in focus from the original Paye/Hinche farm to a national program has overextended government and technical assistance infrastructure. Information is available on only twenty-five percent of bucks.

Lessons Learned - (1) Animal production can work, but mortalities were high. This could be minimized through controlled breeding and improved feeding systems. (2) Off-farm research needs to confirm whether on-farm production data gathered will hold true under traditional management systems. The effect of management alone could significantly increase animal performance, with additional benefits from careful culling and selection. (3) Without development of marketing strategies for the products, animal productivity may grow, but benefits will be minimal to farm family. (4) Improvement in animal genetics will not be expressed without improved husbandry technologies adapted to local conditions and complementary extension activities to provide logistical support and training to primary and secondary beneficiaries.

Achievements/Impact/Problems - The project has established a breeding stock of cross-bred goats for distribution, reaching thirty-nine percent of the targeted primary recipients after about two-thirds of project implementation time has elapsed.

The project has not produced enough animals for distribution to adequately assess the impact of the project. In addition, the assumption that improved animals will result in increased meat and milk consumption (and improved nutrition) for households is not guaranteed due to the cash-oriented nature of goat farming in Haiti.

Project systems became overextended as a result of expanding project activity prematurely from a regional to a national focus before an adequate extension model and support system was developed.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - This project started as a cooperative effort between DARNDR, Winrock International, and Arkansas Area United Methodist Church in March 1982. The purpose of the project was to establish a regional goat improvement center in Hinche in the Central Plateau. After being funded at the level of \$620,979 for three years, the project was expanded to a national focus with a \$1 million AID/Haiti OPG in May 1984.

Constraints - In Haiti, livestock in general are rarely raised as a major enterprise. Instead of a specialized livestock system which is geared to the efficient production of a single product like meat or milk, livestock production has multiple objectives. The farmer usually looks to his animals for production of meat, milk, and breeding stock, storage of capital, and production of fertilizer, all from the same animals at the same time. These objectives will likely be in conflict with each other and, as a result, overall production will be minimized.

Further, the lack of resources and incentives to increase productivity have resulted in little growth of goat product output per animal unit. In general, the Creole goats are usually small, with slow growth rate and low level of milk production. The project's main goal is to improve goat production within this environment.

Relative Priority/Mission Objectives - The goat project was foreseen as a significant intervention within the Mission's Action Plan, and there are definitive expectations for the end-of-project outputs: improvement in goats, feeds, and hillside pastures. The interest in this project is highlighted by the AID funding of two corollary projects which are analyzing ruminant animals to identify nutrient deficiencies and selected forage to ascertain its nutritive quality.

C) PROJECT DESIGN -

Strategy - Not supplied.

Host Country Implementation - The project was implemented through the Ministry of Agriculture (DARNDR).

Components - Creation of a superior breeding herd, delivery of technical assistance and improved animals to farmers, training of technicians and producers, construction of a new center, identification and assistance in the establishment of credit and marketing mechanisms.

Resources - The project was funded with a \$1 million OPG from AID, \$180,000 from DARNDR, and \$380,000 from Winrock International.

Timeframe/coordination - June 1, 1984 - May 31, 1987.

D) EVALUATION METHODOLOGY -

Team Composition - The team included Animal Scientist/Agronomist Gerald Phillippe Auguste of the Haitian Ministry of Agriculture, Animal Scientist Raul Hinajosa of AID/Washington, Extensionist Henk Knipscheer of Winrock International, Team Leader/Agricultural Economist Gregory Sullivan of Advanced Marketing Systems, and Range Scientist B. Dean Treadwell of AID/Haiti.

Host Country Participation - Mr. Phillippe Auguste (see above) was the representative of the Haitian Ministry of Agriculture.

Time Period - April 6 - May 9, 1986.

Methods - Review of pertinent project documents; meetings with key Haitian and U.S. project staff to be briefed on project status; interviews with government officials at the national, regional, and district levels; visits to both project sites; visits to several recipients of improved bucks and assessment of their benefits from the project; interviews in Port-au-Prince and project sites with other participants in the goat industry, including production, processing, marketing, and retailing firms.

Cost - Not provided.

Support Arrangements - Not provided.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Stress, change in environment, missed synchronization in mating Haitian does, and the young age of imported bucks caused a slow start in the breeding program.

Validity of Major Assumptions - DARNDR's lack of commitment was found to be critical in the failure of the project to establish the required extension, distribution, and information systems.

The evaluators state that "it is not enough to assume that the Government of Haiti would on its own initiative establish policies to encourage local livestock meat and milk production, or that small producers could be motivated to consume goat meat and milk products, without developing a framework and agenda to identify, address and resolve policy discussions, or implementing some kind of a campaign to encourage and provide incentive to producers to increase milk and meat consumption." (p. 3, PES I).

Input Delivery - Counterpart staff and extension personnel were not appointed in a timely fashion, and salaries were not paid on a regular basis, which resulted in low staff morale. Other inputs include the provision of technical assistance personnel, construction materials and furniture for a new center, vehicles and machinery, and goats for breeding.

Output Attainment -

<u>INTENDED OUTPUT</u>	<u>STATUS</u>
I. Training	
2 counterparts	On site only. 6-8 weeks U.S. training not accomplished.
2 herdsmen	1 only, on-the-job.
6 extensionists	50 person-months of informal on-the-job. Number of individuals unknown.
Extension agents	None.
Small-scale producers	97 persons for total of 145.5 person-days. Below projections.
Community awareness	More than 200 training days. Within projections.
II. Training Materials	Syllabus prepared. Some other materials completed in English, but no translation as of yet.
III. Facilities/Commodities	
Construction materials	Outputs have satisfied commitment.
Vehicles	
Furniture & fixtures	
IV. Breeding Herd Objectives	
Herd size offtake	On target.
Production	On target.
V. Stud Breeder Nuclei.	Do not exist - not enough breeding bucks to start a center.

Source: (National Goat Production Improvement Program - Haiti - Mid-Project Evaluation, 5/86), Table 13.1c.

Purpose/Indicators Progress - Better animals were produced through selective breeding. There was very limited dissemination of new production techniques off-farm, and these were seldom complete and appropriate. Training occurred on a much more limited basis than the project intended. Eighty-two of the intended 148 new bucks were distributed, but technical assistance to those farmers who received bucks was spotty. No nucleus of family farmers to breed improved animals was developed. Little progress was made on the establishment of producer credit and marketing mechanisms; a limited marketing survey was begun, but not completed.

Impact - (1) The project has not produced enough animals for distribution to adequately assess the impact of the project. (2) The assumption that improved animals will result in increased meat and milk for households is not guaranteed. Increased animal utilization will require Government of Haiti support in extension and improvement in market facilities. (3) Intra-household dynamics on labor allocation to household activities may constrain utilization of certain aspects of tech packs needed. (4) Increased availability of meat and milk may not result in increased household nutrition, especially to vulnerable groups in the household: children and pregnant women.

Contribution toward Planned Goal - The goal of the project is to increase the availability of domestically produced meat and milk to the local population, to improve the socioeconomic well-being of some 7,000 family farmers through the overall improvement of the goat production sub-sector, and to increase their level of income. The project's goals were viewed as unrealistic given the nature of animal production in the tropics. The recipients of improved bucks generally have kept the offspring rather than selling; consequently, it is too early to ascertain economic benefits. Producers' reasons for having goats as a source of cash indicates lower utilization rates for commercial and household consumption than projected.

External Factors - The political instability after a dramatic change in the political structure directly impacted on the outcome of one component. For several weeks in February 1986, the project site at Gonaives was completely destroyed by an unknown group of people during the revolution. A total of 160 animals were stolen from the farm, the wire fence around the perimeter of the farm was taken, and the farm buildings were vandalized.

Unplanned Effects - None mentioned.

Lessons Learned - (1) Animal production can work, but mortalities were high. This could be minimized through controlled breeding and improved feeding systems. (2) Off-farm research needs to confirm whether on-farm production data gathered will hold true under traditional management systems. The effect of management alone could significantly increase animal performance, with additional benefits from careful culling and selection.

(3) Without development of marketing strategies for the products, animal productivity may grow, but benefits will be minimal to farm family. (4) Improvement in animal genetics will not be expressed without improved husbandry technologies adapted to local conditions, and complementary extension activities to provide logistical support and training to primary and secondary beneficiaries.

Project Title: Ruminant Reproduction Research Project,
NGO Support III
Project Number: 521-0182, Subproject No. 11 Mission: Haiti
PACD: 2/87 Date of Evaluation: 3/87*
LOP: Not available Type of Evaluation: Final*
Host Country Contribution: Not available

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - Prior observations and reports suggested that mineral and/or vitamin deficiencies might be a major cause of the poor reproductive performance of the cattle and goats in Haiti's Artibonite Valley. The goal of this project was to provide a way to improve the reproductive performance by ascertaining if selected minerals or vitamins were deficient, and then proposing an appropriate supplement to correct identified deficiencies or imbalances.

Findings - It was discovered from the soil, forage, and animal tissue analyses that the livestock in the study area have extremely low levels of phosphorus and high levels of calcium available to them. This wide calcium/phosphorus ratio interferes with the metabolism of other minerals, reducing productivity and reproductive efficiency.

Lessons Learned - The document which this synthesis summarizes is actually the final report of the research team which conducted the project. It is not an independent evaluation of the project nor a critique of the manner in which it was conducted.

Achievements/Impact/Problems - The research project did discover certain vitamin/mineral deficiencies which hinder reproductive capacity in ruminants. In addition, potentially valuable baseline data was collected on the livestock management practices of the farmers of the area. However, these results admittedly cover a select population of a select area in terms of farmer receptivity to livestock management projects and sophistication of veterinary care. Caution is recommended by the research team in extrapolating these results to the general farmer population in other parts of Haiti.

B) PROJECT RATIONALE -

Factors Leading to Selection - Workers in livestock development in Haiti have long noted poor reproductive performance in the indigenous ruminant livestock. Because of a lack of symptoms of reproductive disease, some workers suspected that a mineral or

*Document examined is the Project Team's Final Report dated March, 1987, which is not an evaluation.

vitamin deficiency could be the problem. In 1985, an Operational Program Grant was provided to Heifer Project International to undertake this research project for two purposes: (1) to determine if selected vitamins and minerals were deficient in cattle and goats, and (2) to develop a vitamin-mineral supplement to correct any vitamin-mineral deficiencies found in the cattle and goats.

Anticipated Constraints - There is little objective data concerning the livestock practices of Haitian farmers. Since the vitamin supplement which the project intended to develop would be of value only if it would fit into the economic, social, and management patterns of the animal owners, it was necessary to gather a large amount of information about the livestock ownership and management practices of the region in question.

Relative Priority/Mission Objectives - This research activity was Subproject No. 11 of the Non-Governmental Support Project III. This sub-project was not specifically mentioned in the 88-89 Action Plan for Haiti.

The report did not include a PES attachment. Hence, it is difficult to determine Mission reaction as to the relative significance of the project or the results of the final report.

C) PROJECT DESIGN -

Strategy - Through a series of periodic field visits, the researchers completed physical examinations of a variety of species, collecting blood, hair, and forage samples. This was intended to determine if selected minerals and vitamins were deficient in the cattle and goats in the area.

In addition, the researchers attempted to develop baseline data about the livestock system and management practices of the region by administering to selected farmers a series of questionnaires covering livestock reproduction, nutrition, disease, and marketing. This data would be important in developing and distributing a supplement to correct the vitamin-mineral deficiencies which might be found.

Host Country Implementation - Each field visit team included three Haitian animal technicians, a Haitian interviewer, an expatriate veterinarian, and an expatriate coordinator.

Components - A sample of forty-three participants was chosen from farmers who brought their goats for preventative treatment at a local clinic offered by the Hospital Albert Schweitzer veterinarian. From this group, 112 animals were chosen to represent a cross section of animals by sex, age, and reproductive status. Each animal was visited at four ten-week intervals. At each visit, a physical examination was performed, blood and hair samples were taken, and representative soil and forage sample were collected. Samples were sealed and sent to Virginia Polytechnic Institute (VPI) for analysis. In addition, a questionnaire was administered to the person responsible for day-to-day management

of the animal. The questionnaires covered reproduction, feeding and nutrition, health and disease, and labor and marketing.

Resources - Neither the report nor the 88-89 Action Plan give any indication of costs involved for the research project.

Timeframe/coordination - The project began in October 1985 and was completed in February 1987. The sampling occurred from January-August, 1986.

D) EVALUATION METHODOLOGY -

Team Composition - The study team was headed by M. Cashin, research coordinator of Heifer Project International. The team also included H. Veit of the Department of Pathobiology at the Virginia-Maryland Regional College of Veterinary Medicine at VPI, F. McCarthy of the Department of Animal Science at VPI, agronomist J. Fredericks of VPI, and project manager R. Angert.

Host Country Participation - N/A.

Time Period - N/A.

Methods - As stated earlier, *this synthesis does not report on an evaluation of this project.* The document which it reviews is the final report by the implementing agency.

Cost - N/A.

Support Arrangements - N/A.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The project had originally planned to visit animals and farmers at four twelve-week intervals to represent a full year, from January to December, 1986. However, this schedule was modified to finish the samplings by October, when many animals are sold to pay for school tuition.

Validity of Major Assumptions - As anticipated, the researchers found a significant vitamin deficiency which could negatively affect reproductive capacity in the area's ruminant population. However, they were not able to develop a cost effective supplement that could be grown to correct this deficiency within the scope of this project. However, they recommended that more research be done to assess the value of rice byproducts (i.e., rice bran) for ruminants in Haiti.

Input Delivery - Each animal was given an identification number and thorough examination at the initial visit. Collection, preparation, shipping, and analysis of samples were successfully completed.

Output Attainment - The researchers cited ten conclusions in their study. These include: (1) a major deficiency of phosphorus and an excess of calcium in the soils and forages of the area, the combination of which reduces productivity and reproductive efficiency; (2) deficient levels of vitamin E or vitamin A in many goats or cattle at various sampling points throughout the year, particularly in the rainy season; (3) generally sufficient levels of selenium, zinc, and magnesium; (4) forage iron levels, though not toxic, high enough that they could be antagonistic to other minerals, specifically zinc and phosphorus; (5) evidence of vaginal and testicular disease in cattle, but not in goats; (6) no evidence of catastrophic disease in cattle or goats, but a myriad of internal and external health problems serious enough to have a definite adverse effect on animal performance; (7) the management practices of animal owners do little to enhance production and reproduction in cattle and goats.

Purpose/Indicators Progress - N/A.

Impact - The baseline data survey produced reasonable conclusions as to the pattern of livestock management in the region under study. However, the authors include the caveat that both the area (the irrigated Artibonite Valley, located near the Hospital Albert Schweitzer) and the farmers in that area selected for the sample (chosen from among those who brought their animals in to the local veterinarian sample) were unusual in their exposure and receptivity to veterinary care. The researchers made no attempt to extrapolate their results to the general population of farmers in that area, much less to other parts of Haiti. Consequently, their research methodology rather than their results are the most transferable output of the project.

Contribution toward Planned Goal - Prior to project inception, it was anticipated that a mineral supplement could be developed or that some "accumulator" plants high in the deficient mineral could be identified and promoted to correct the imbalance. However, due to the nature of the primary discovered vitamin deficiency, a high Calcium/Phosphorus ratio, the researchers did not develop a corrective supplement. Most commercially available trace mineral supplements are higher in calcium than in phosphorus, and there are no local plants high enough in the deficient minerals to significantly alter the imbalance. The authors recommend exploration of the possibility of using rice bran, an easily available byproduct of rice milling, as a feed source with a high phosphorus/calcium ratio. There are several potential problems with rice bran as a major feed source, however. First, to avoid damaging the lining of the rumen of animals, the hulls must be removed from the germ, a relatively simple procedure. Second, the high moisture content causes rice bran to become rancid rather quickly, particularly with current storage methods. Finally, rice bran is increasingly being used as an alternative feed source for pigs, making competition and scarcity significant factors.

External Factors - None mentioned.

Unplanned Effects - None mentioned.

Lessons Learned - None mentioned.

Project Title: Rural Technologies Project

Project Number: 522-0157

Mission: Honduras

PACD: 9/88

Date of Evaluation: 6/86

LOP: \$9 million

Type of Evaluation: Interim

Host Country Contribution: \$7.9 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - Its purpose is to improve the socio-economic status of poor rural farm families and the small rural entrepreneur by providing them with light capital technologies developed, adapted, and disseminated by the project.

Findings - This project is producing favorable economic results. Though in-service training has been helpful and field agents have done a good job in support of the technology adoption process, the project needs an officer, a clear plan, and funding explicitly for training. Productive relationships with PVO's have been developed, contributing measurably to the achievement of overall objectives by enhancing the project's ability to work with a larger group of participants. The Farming Systems Methodology has made a dramatic impact on the operating approach of the project, developing a better means of identifying and addressing the needs and problems of the rural poor.

Lessons Learned - (1) This project has demonstrated that "marginalized" rural poor can be reached by creating a project operating outside of established institutional channels. (2) The problems and needs of the rural poor are so diverse that there is a natural tendency to try to do too much. This was manifested by work on too many technologies at once. (3) While the project is achieving its overall objective of benefiting the rural poor, specific goals in the project agreement have often been unrealistic. (e.g. the original project paper projected 50,000 farm families while a recent survey indicated that the actual number would be 9,430 families by the end of 1988). (4) The business development component has been more successful in helping small businesses than in helping small industries. (5) Continued use of adopted new farming implements depends not only on their technical usefulness, but on other variables affecting agriculture in general. (6) Sustainability of impact through continuous use of technologies disseminated may be achieved if project implementers make a point of working with younger farmers.

Achievements/Impact/Problems - The overall net average economic gain per technology was Lempiras 263 per year during the first seven years of the project. With an average of 1.7 technologies per family, this implies an average increase of Lempiras 447 in annual income of participating families. Making allowances for inflation this represents an estimated nineteen percent increase in real income for a family cultivating a traditional farm under five hectares, i.e., a family for which revenue is generated by both on- and off-farm activities.

The impact of the project is not at present directly measurable. It appears, however, entirely favorable. It is reaching its target group and meeting its economic objectives, in doing so it is contributing to GOH and AID objectives of improving the socio-economic status of the rural poor through dissemination of light capital technologies adapted to the needs of rural inhabitants.

With modest assumptions about diffusion of technologies a benefit-cost ratio of 2.18 can be anticipated over a twenty-year period. Impact on foreign trade is favorable, since the technologies being developed require little or no foreign import, and several products of developing rural industries are exportable, while increases in farm production will often substitute for imports.

Problems have not prevented the project's productive operation. However, nine of fifteen recommendations are for organizational and staffing improvements which would improve project operations. Notably, recommendations are: to consider reorganizing the operating agency, PTR, from a (temporary) unit of the MDR to a PVO, and to rationalize and clarify the lines of responsibility and authority in PTR.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - This project was the outgrowth of the Ministry of Natural Resource's Small Farmer Project funded by AID in 1976. A related seminar held in 1978 led to the conclusion that the Government of Honduras should accelerate its efforts to improve small farmer technologies and expand the scope of activity to encompass rural industries and rural households. In 1979, this project was initiated, and the original Small Farmer Technologies Project was absorbed into it as a central component.

Constraints - It is estimated that sixty-three percent of Honduran farmers have less than seven manzanas to cultivate; this constitutes only nine percent of the total agricultural area. Such farms tend to be on hillsides where soils are less fertile, while more fertile valleys and plains are dominated by banana plantations or by large haciendas which often graze cattle. The small farms of the poor rely heavily on human labor and use very few modern inputs or improved technologies.

Relative Priority/Mission Objectives - AID mission strategy at the time the project was initiated called for better use of available resources to achieve growth with equity. Improved technology was the centerpiece of this strategy. AID's strategy was altered only slightly when the Central American Initiative, also known as the "Jackson Plan," was adopted in the early 1980's. This initiative also emphasized "growth with equity," particularly through expanding employment opportunities.

The Honduran government's strategy assigned first priority to agricultural development designed to eliminate rural unemployment and make better use of available local resources. It also

stressed the importance of small and medium-sized industries in generating employment.

C) PROJECT DESIGN -

Strategy - This project meshes with the current strategies of AID and the Government of Honduras because of its emphasis on technology that will help to employ available resources (especially human labor) and because of its focus on the rural poor; this directly addresses the equity issue. Project objectives are to be accomplished by improving the well being of rural families through "other than income increasing means" and by increasing the incomes of small farmers and rural entrepreneurs (pp. 1-3).

Host Country Implementation - The Industrial Development Center (CDI) in the Ministry of Economy was chosen as the lead agency for the new project, although the Development and Adaptation Unit in the Ministry of Natural Resources continued to play a key role. Later, a special project office was established in CDI.

Components - Research and development of new technologies; technical assistance and training; extension and dissemination of new technologies; credit.

Resources - According to the Executive Summary, the first stage of the project was funded with a \$5 million grant, and an additional \$4 million was added five years later. With host country inputs, total approved funding for the project is \$16.9 million, including \$4 million for credit.

These figures differ slightly from those in the PES I, which places total funding at \$13.2 million, including \$9 million in U.S. funding, \$3.8 million in ESF, and \$92,500 from PL 480.

Timeframe/coordination - The original project agreement was signed in August 1979 for a period of five years. A mid-term evaluation by an outside evaluator in 1983 was favorable, and the project was renewed in 9/84 to run until 9/88.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was conducted by Team Leader and Economist James Fitch, Sociologist and Evaluation specialist Edgar Nesman, Farming Systems and Agronomy specialist Eugenio Martines, Agricultural Engineer Lloyd Johnson, and Small Enterprise Management specialist Robert Terzuola. Blair Cooper, AID Project Officer, was an AID/W direct hire for nine person-days.

Host Country Participation - Six trained Hondurans, all with prior experience as field interviewers on rural surveys (but with no connection to this project), conducted the interviews for the evaluation survey.

Time Period - The survey was carried out in January and February 1986, with the evaluation team members spending an additional three weeks in Honduras in late February.

Methods - A field survey was designed based on a stratified random sample of 291 project participants. The survey team used experienced Hondurans to conduct the interviews, revisiting interviewee households and farms sites to verify survey results.

The team also made special study visits to small rural businesses and industries which had participated in the project. Numerous project and AID personnel were contacted, and visits were made to more than a dozen related Honduran agencies and organizations.

The methods followed in preparing the final report include institutional analysis, statistical analysis and interpretation of survey results, descriptive case studies of small businesses and industries, and benefit-cost analysis.

Cost - The cost of the contract with Winrock International was \$80,000, with an additional \$1,500 for AID/W direct hire.

Support Arrangements - Completion of the evaluation required eighty-nine person-days of Mission professional staff and sixty person-days of Mission support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Flow of funds has been a problem, periodically causing delays in procurement of local goods and services. A revolving fund of \$450,000 was established in 1985; this appears to have helped to reduce the problem. Nevertheless, flow of documentation for payment has continued to experience delays, since payment involves not only this project, but also the Ministries of Economy and Finance, and sometimes PVO's. In some recent cases, this has taken up to four months. Added to this have been delays of more than two months in receiving payment from the AID disbursing office in Mexico City.

Validity of Major Assumptions - Small farmer and rural industry development have continued to be high priority items for the Government of Honduras, and intended beneficiaries have been receptive to the introduction of new technologies.

Input Delivery - With the exception of flow of funds problems, which are serious but not critical, there appears to have been adequate financial support and availability of needed inputs to the project. This has included vehicles, other equipment, and foreign technical assistance.

Output Attainment - More than 8,500 technologies have been distributed through the project. Major categories are stove, silo, soil conservation, irrigation, corn sheller, soap and other. Lorena stoves have constituted almost half of these. Farms have benefited from grain storage silos (778), soil conser-

vation and irrigation technologies (697), and an assortment of production improvements including small farm machinery, improved seed and planting methods, and animal production improvements. Some 998 businesses or individuals have participated in efforts to push the development of rural enterprises. This has included loans made to rural shops and artisans, training in improved bookkeeping methods, and development of improved machinery and equipment for small rural industries.

Purpose/Indicators Progress - Farmers have proved receptive to the use of light technology. This has to lead to improved use of land and more effective labor utilization. The project has reached fewer participants than expected, though with higher per capita benefits.

Impact - The evaluation team estimated that 9,430 families would be directly benefitted by the project by 1988. This is substantially fewer than the 50,000 families projected in the original project paper. However, the average benefit of \$224 per family which is being achieved is some eighteen times higher than the \$12.38 estimated in the original project paper.

Overall impact on trade and foreign exchange is seen to be quite favorable because the technologies rely mainly on available local resources and do not require expensive imports. Several of the products of small rural industries being developed within the project are exportable, while staples being produced for the local market will serve to reduce imports in some cases.

Contribution toward Planned Goal - The project goal is to increase incomes of small farmers and rural small businessmen, improving the quality of rural living. The overall average benefit per technology was \$132 per year during the first seven years of the project. With an average of 1.7 technologies per family, this implies an average increase of \$224 in the annual income of participant families. This represents a nineteen percent increase over the average traditional farm income in Honduras.

External Factors - A shrimp cultivation enterprise involving 150 cooperative farmers was seriously disrupted when floods washed out levees. In another case, nine water wheels were installed on a river which was later diverted by an upstream government project. Perhaps the most serious external factor affecting the project is the amount of turnover among upper level managers and even key technical staff. "At the upper level, this is often a reflection of governmental and political changes (p. viii)." At the technical level, staff turnover stems more from the fact that project personnel are employed on the basis of relatively short-term contracts. Nevertheless, current project management has made considerable progress in this regard; the contract period has been increased from three months to a year, which is the longest permitted under Honduran law for agencies without permanent status.

Unplanned Effects - None mentioned.

Lessons Learned - (1) This project has demonstrated that "marginalized" rural poor can be reached by creating a project which operates outside established institutional channels. This ultimately presents a paradox, however, in that such an agency by its nature may only receive limited commitment from the government. (2) The problems and needs of the rural poor are so diverse that there is a natural tendency to try to do too much. This has been manifested by trying to work on too many different technologies at once, thus developing too much breadth and not enough depth. Fortunately, the project has already taken a major step toward correcting this problem through the implementation of Farming Systems Methodology. (3) While the project is achieving its overall objective of benefiting the rural poor, specific goals set up in the project agreement have often been unrealistic. At this time, there is a need to redefine operating goals away from the emphasis on sheer numbers of technologies disseminated and to give more emphasis to selectivity and quality. (4) The project has been more successful in helping small rural businesses (carpenters, shoe shops, dressmakers) than it has in helping small rural industries (cocoa bean processing, snack food manufacture). This can be explained by the fact that it has often been possible to help the small businesses by merely providing simple business management guidance and giving them loans, whereas industries require more sophisticated technical and organizational assistance. (5) Continued use of adopted new farming implements depends not only on their technical usefulness, but also on other variables affecting agriculture in general. The economic variables that may affect continued use of these implements must be carefully examined during the stage when identified prototypes are being field tested. Examination of these variables at that stage may require an extension of the field testing period to include several cropping cycles. In addition, sustainability of impact as a result of continuous use of technologies disseminated may be achieved if project implementers make a point of working with younger farmers. This category of producers is less likely to be affected by tradition and, as a consequence, be less inclined to revert to previous working systems when unforeseen or unexpected problems associated with the application of newly adopted technologies arise. The capability of younger farmers to confront such problems may be an important factor in achieving a multiplier effect.

Project Title: Rural Water and Sanitation
Project Number: 522-0166

Mission: Honduras

PACD: 12/87

Date of Evaluation: 6/86

LOP: \$10.24 million

Type of Evaluation: Interim

Host Country Contribution: \$10.46 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To improve the health status of 450,000 Honduran rural poor by providing safe water, appropriate waste disposal facilities, and health promotion through instruction.

Findings - The project management structure has been unable to establish an effective plan for integrated program activity among the three implementing agencies. Disbursement and reimbursement procedures are lengthy and complex. The need to establish an effective operations and maintenance program is crucial. The criteria by which projects are selected for implementation does not ensure the selection of small rural communities. Private voluntary organizations can expand project coverage, often in small, remote communities. A model for evaluation of integrated project activities that balances concerns for construction and promotion is needed. A committee has been established with the responsibility for revising technical standards for design and construction. The independent planning process contributes to a fragmented approach at the community level with a strong emphasis on construction activities and less concern for promotion and health education. The promotion and health education capacities of the promoters and other personnel need to be strengthened in order to be prepared to mobilize communities in construction, operation and maintenance, and proper use of water and sanitation systems.

Lessons Learned - None supplied.

Achievements/Impact/Problems - The original evaluation document was prepared in Spanish. This synthesis reports the information contained in the 28 page English language summary attached to the original report.

From the PES: "Although the evaluation report does not have a specific section on the project's development impact, the evaluation team detected insufficient community participation in the project and lack of support for promotional activities which could increase project acceptance and improve hygienic habits in water usage. The emphasis placed on meeting construction targets has been detrimental to promotional and educational activities. This, in turn, has negatively affected the project's impact. The fact that promoters are contractors with little job stability who encountered extended delays in receiving their salaries also had an impact on promotional activities."

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Not supplied.

Constraints - Not supplied.

Relative Priority/Mission Objectives - Not supplied. The 1988/89 Action Plan lists this project under LAC Objective #9, "Improve Health and Health Services."

C) PROJECT DESIGN -

Strategy - The focal point between the communities and the project would be the promoters, trained and supported by project funds. They were to work directly with the selected communities to achieve community participation in the construction, operation, maintenance, and correct use of appropriate water and sanitation systems. Additional support was also provided through the broadcast of public health messages on the radio. To ease the burden of operating and maintaining water systems, priority was to be given to selecting communities with nearby, protected surface water sources. If such sources were not readily accessible, dug wells and handpumps were to be installed as alternatives.

The project was designed to take advantage of the strengths of both SANAA and MSP (including its Office of Health Education). The execution of the project, however, would require the close coordination of these two organizations. To promote efficient implementation of the project, a project director, a project coordinator, and a project review committee (with specific responsibilities for each) were to be established.

Host Country Implementation - The project is being implemented by three agencies: (1) the Executive Unit of the Honduras Rural Water System and Environmental Sanitation Project (PRASAR) within the National Autonomous Agency for Water Supply and Sanitation Systems (SANAA); (2) the unit responsible for sanitation (MSP) within the Ministry of Public Health; and (3) the unit charged with promotion and health education for sanitation (OES), also within the Ministry of Public Health.

Components - (1) The design and construction of new water systems and wells with pumps; (2) The construction of latrines and sewer systems; (3) Rehabilitation of existing water systems; (4) The strengthening of operation and maintenance organizations through technical assistance and training; (5) Training of promoters of latrines and health education; (6) Radio and school health education programs, with the design of educational materials; (7) Community surveys to determine needs and activities for funding.

Resources - The initial project budget provided a total of U.S. \$18.2 million for the project. This consisted of \$10.0 million in loan funds and a \$500,000 grant from the U.S. Government, as well as \$3.8 million in counterpart funding from the

Honduran Government. An estimated \$3.9 million was designated as the contribution to the project by the communities. Project Amendment #1 of July 1983 increased the project budget to a total of \$28.2 million. The revised budget included an AID contribution of \$19.5 million in loan funds and a \$1.0 million grant, with \$7.7 million counterpart funding. The contribution from the communities was deleted.

A third amendment in 9/85 provided an additional \$200,000 U.S. grant to the budget, raising the amount of the AID grant to \$1.2 million.

Timeframe/coordination - The project provides for seven and one-half years of assistance from May 31, 1980 to December 31, 1987. The original project contract was signed in 3/80, with a termination date of 9/83. Amendment #1, signed in 7/83, extended the project completion date to 9/85. Executive Letter #79 further extended the project execution date to 12/87.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included Luis Moncada, Carlos Solares, and Rose Schneider. This English language summary report was written by Schneider and J. Ellis Turner.

Host Country Participation - No explicit role, though extensive technical debriefings were carried out with SANAA, MSP, and OES directors and key staff members.

Time Period - The evaluation was undertaken during a six-week period in November and December, 1985.

Methods - Methods included a project briefing, document review, interviews, and site visits.

Cost - The evaluation was funded by the AID-funded Water and Sanitation for Health (WASH) Project, sponsored by the Office of Health in the Bureau for Science and Technology. No specifics were given as to the cost of the evaluation to WASH.

Support Arrangements - Completion of the evaluation required sixty person-days of Mission professional staff and forty person-days of Mission support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Initially, SANAA was to carry out all major project purchases. However, when significant delays occurred, the MSP began to initiate purchases requiring the involvement of the central government. This procedure proved to be complex and encountered even more extensive delays (p.10). Payments of external funds by letters of credit have encountered significant delays.

Validity of Major Assumptions - The biggest drawback of implementation has been the failure of project management to develop a clear implementation plan which includes the full participation and explicit coordination of all three agencies. The project paper was vague about the various tasks of the respective agencies, assuming that these responsibilities would become clear as the project developed.

Input Delivery - Hiring personnel for MSP can take up to five months, and it sometimes takes up to five to eight months for new employees to get paid, with new delays at the annual renewal of contracts. This results in low morale and a rapid attrition rate. Delays in the payment of external funds have resulted in the creation of a rotating fund for the implementing agencies. Temporary suspensions of construction brought on by lack of materials cause many communities to accept an inadequately functioning system and to refuse to complete construction when materials become available. Appropriate local materials are often not used, thereby resulting in increased costs and delays to transport materials from outside the community. Although the promoters have been employed for more than a year, no vehicles have been provided directly to them. This greatly slows field mobilization and lowers morale.

Output Attainment - Less than fifty percent of the long-term training and short observation trips have been initiated. Some 113 in-country courses have been attended by project personnel. The resource library has not been initiated.

Purpose/Indicators Progress - The evaluation contains several conclusions that indicate that progress on purpose can not be adequately determined. These include statements such as "the impact of PRASAR health education activities on behavioral changes in water use and sanitary habits has not been adequately studied," and "the existing water system census information that was collected in 1985 has not yet been analyzed by computer." On the negative side, however, another conclusion states that "the promotion and health education capacities of the promoters and other personnel need to be strengthened in order to be prepared to mobilize communities in construction, operation and maintenance, and proper use of water and sanitation systems" (pp.25-26).

Impact - From the PES: "Although the evaluation report does not have a specific section on the project's development impact, the evaluation team detected insufficient community participation in the project and lack of support for promotional activities which may both increase project acceptance and improve hygienic habits in water usage. The emphasis placed on meeting construction targets has been detrimental to promotional and educational activities. This, in turn, has negatively affected the project's impact. The fact that promoters are contractors with little job stability who encountered extended delays in receiving their salaries also had an impact on promotional activities."

Contribution toward Planned Goal - "The promotion and health education capacities of the promoters need to be strengthened in order to be prepared to mobilize communities in construction, operation, maintenance, and the proper use of water and sanitation systems." (Conclusions - p. 26)

External Factors - None mentioned.

Unplanned Effects - None mentioned.

Lessons Learned - None supplied.

Project Title: Natural Resources Management
Project Number: 522-0168

Mission: Honduras

PACD: 7/87 (From 7/85)

Date of Evaluation: 2/84

LOP: \$15 Million

Type of Evaluation: Interim

Host Country Contribution: \$7 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The implementation of natural resource conservation activities in the Rio Choluteca Watershed: (1) to strengthen the institutional mechanisms through which the Government of Honduras manages the country's natural resources; (2) to undertake an action program in selected watersheds to increase farmers' incomes; and (3) to conserve the natural resources of soil and water through the introduction of modified agricultural and forestry activities.

Findings - After numerous initial delays in all phases, the project has shown significant progress in the Data Collection/Analysis and Watershed Management components. The evaluators recommended a de-emphasis of the policy making and planning component with an extension of the PACD until 7/87, with which the Mission agreed.

Lessons Learned - (1) Initiating implementation of a complex project, requiring numerous inter-institutional agreements, is a painstakingly slow process; (2) the importance of establishing and implementing a clear procurement plan has been re-emphasized under this project; (3) the project has developed effective methodologies for watershed protection and soil conservation; however, reversal of environmental degradation will require many more such projects and much more time; and (4) an impact-oriented extension program employing multi-disciplinary teams that live and work in the rural communities they serve can be highly effective, with these points in mind:

a) working with farmers and demonstrating the value of soil/water conservation structures may be preferable to subsidies as a motivating force

b) credit plans are difficult to implement given the conditions of land tenure prevalent in the area

c) the ability to make "course adjustments" in magnitude and timing of inputs and other project elements and sub-activities is of critical importance in the implementation process

d) the value of effective technical assistance in helping to form a "critical mass" within a project such as this should not be underestimated.

Achievements/Impact/Problems - After a two-year delay in start-up, due to political changes, the project is now on track.

Seventy-four Local Agricultural Committees had been organized (7/84) in nine water management units, with good progress continuing.

Impact is not measurable, at this stage, but where the project is operating, is positive.

Problems were encountered initially: The project agreement was signed in 1980, during the change of government to civilian rule; an AID project manager was not assigned till May 1982, and the support T/A contract was not signed till April 1983. Cartographic, computing and transportation equipment for data collection was slow to arrive, impacting on the preparation of soil, land use and cartographic data for preparation of subwatershed management plans.

B) PROJECT RATIONALE -

Factors Leading to Selection - The southern region of Honduras is one of the poorest and most densely populated areas of the country. Serious natural resource and environmental quality problems have resulted from the slash and burn techniques of the campesinos on the steep hillsides. In addition, the cutting of trees for both fuelwood and lumber has led to serious deforestation of watersheds, resulting in increased flooding, soil erosion and loss of soil fertility, loss of water holding capacity, and the depletion of productive forests. The project is particularly critical in the headwaters subwatershed where protection of the hillsides through reforestation is necessary to fulfill the water supply needs of Tegucigalpa.

Anticipated Constraints - The government had very little contact with hillside farmers prior to this project, so farmers were likely to be wary of project activities designed to alter their mode of cultivation. In addition, the project planning component required cooperation and shifting responsibilities among a large number of public sector institutions, which are not known for their willingness to relinquish authority over aspects of natural resource management.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - An Agricultural Policy Commission, composed of representatives of a number of public sector organizations involved in natural resource management, was to be formed. Technical assistance and training were to assist the National Cadaster Program and the General Directorate of Hydrological Resources to establish their statistical delivery capabilities. A central project office was established and five subwatersheds were selected as the major zones in which to implement the project. Four Watershed Management Units (WMU's) were to be formed in each subwatershed to oversee research and extension work.

Host Country Implementation - The project was designed to be implemented by Honduran institutions with minor technical assistance in the data gathering component. Institutional

strengthening of indigenous management entities was a major element in design, though this was the weakest component in actual implementation.

Components - (1) Natural resource and land use policy and planning; (2) Natural resource data collection and analysis; (3) Watershed management of the Choluteca River Basin.

Resources - The original amount authorized by AID was \$12,252,000 loan and \$2,743,000 grant. The Government of Honduras committed \$6,967,000 for a grand total of \$21,962,000.

Timeframe/coordination - The original agreement for the project was signed on July 31, 1980, with a project life of five years.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team was composed of Dr. Daniel D. Badger, Professor of Resource Economics at Oklahoma State University; Ing. Nelson de J. Agudelo, Assistant Professor of Forestry at the Pan American Agricultural School in Honduras; and Dana Fisher, Graduate Research Assistant in the Department of Agricultural Economics at Oklahoma State University.

Host Country Participation - Ing. Agudelo is a Honduran national.

Time Period - The evaluation team was on site in Honduras from December 27, 1983 until January 23, 1984.

Methods - The evaluation team reviewed all appropriate documents, project papers, contracts, and reports of the various agencies. They visited with Mission, project office, technical assistance, and government personnel of the various agencies involved in project planning and execution. A questionnaire was prepared to gather data on loans, subsidies, trees planted, soil conservation works constructed, etc. This was administered to officers of eight of the nine Watershed Management Units in the field.

Cost - No details were given of the cost of the evaluation contract with Winrock International.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Though the project agreement was signed in August 1980, AID did not assign a project manager until May 1982. The technical assistance contract was not signed until April 1983, with the first technicians arriving in May. The National Agricultural Committee (CNA), which was assigned the

policy and planning coordination tasks originally envisioned for the Agricultural Policy Commission (CPA), was not formed until January 1984.

Validity of Major Assumptions - Implementation of the policy and planning component was based on the assumption that the CPA, composed of representatives from the participating organizations and agencies, would meet regularly and function efficiently as the Government's decision-making body responsible for defining project directives and for coordinating inter-institutional activities related to the project. The CPA, however, was abolished in November 1980, only about five months after the project agreement was signed.

Input Delivery - Difficulties were encountered in obtaining vehicles and trained personnel for field survey teams, and in obtaining equipment for map making and data analysis purposes. Failure to properly identify computer equipment needs caused a delay in procuring some major equipment items. There was no time at project inception to implement a long-term training component for project personnel.

Output Attainment - The committee to formulate policies and priorities for the management and utilization of natural resources has been formed, but it began its work four years after project inception and its scope of oversight is much narrower than was originally envisioned. Data collection has been slow due to the difficulty of obtaining equipment and the lack of trained personnel, but cartographic and land use data is now being supplied to assist in the selection of locations for WMU's. twelve reforestation nurseries and 74 community organizations (of a targeted total of 264) have been established.

APPROPRIATE LAND USE (in hectares)

	<u>As of 1/84</u>	<u>Target</u>
Improved soil conservation	2490	15000
Improved range management	831	5000
Pine & Fuelwood Reforestation	500	4000

Purpose/Indicators Progress - Little progress has been made in the aspect of strengthening the institutional mechanisms through which the government manages the country's natural resources. The evaluation team recommended that this aspect of the project be de-emphasized, so that the central office can devote its resources to the extension components of the project.

Impact - The primary objectives of reducing soil erosion, reducing deforestation, and improving the small farmer's income are being achieved, though their levels are not yet quantifiable.

Contribution toward Planned Goal - The goals of the project are: (1) to improve the employment and income of poor families living in the watersheds through rational and more productive use of land; (2) to improve the management and use of land, forests, and other renewable resources in Honduras since the long term productivity of the land depends on how the natural resource base is managed and protected. The project has exhibited modest, yet positive progress towards achieving these goals.

External Factors - Implementation was initiated during a transition period from military to civilian rule. This was a period of political instability and significant personnel turnover, with the project considered a low priority by the government of Honduras. Over the last two years, however, the commitment of the project's new Executive Director is a major factor in recent progress.

Honduras's economic deterioration of the past four years has resulted in large balance of payments and fiscal deficits. The current high priority assigned by the government and additional financial support from AID through Economic Support Funds and PL-480 has assisted the government to meet its counterpart requirements; however, continued political and financial lobbying will be required to enable this to continue.

Unplanned Effects - Not observed at this stage of implementation.

Lessons Learned - (1) Initiating implementation of such a complex project, requiring numerous inter-institutional agreements, is a painstakingly slow process; (2) procurement plan, and following up on it, has been re-emphasized under this project; (3) an impact-oriented extension program employing multidisciplinary teams that live and work in the rural communities they serve can be highly effective, with these points in mind:

- a) subsidies to farmers do not develop long-term commitment to project activities
- b) credit plans are difficult to implement given the conditions of land tenure prevalent in the area
- c) the ability to make "course adjustments" in magnitude and timing of inputs and other project elements and sub-activities is of critical importance in the implementation process
- d) the value of effective technical assistance in helping to form a "critical mass" within a project such as this should not be underestimated.

(4) The project has concentrated attention on the very serious environmental degradation problems in Honduras, and developed effective methodologies for fighting this problem. However, reversal of the current deterioration of the environment will require many more such projects and much more time.

Project Title: Small Farmer Coffee Improvement

Project Number: 522-0176

Mission: Honduras

PACD: 1987

Date of Evaluation: 1/86

LOP: \$20.25 million

Type of Evaluation: Interim

Host Country Contribution: \$29 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To mitigate the impact of coffee rust on small coffee producers by assisting them to increase their yields. This would enable them to afford rust control measures themselves, thereby allowing them to increase their real income.

Findings - Overall, the project is progressing ahead of schedule and should accomplish the stated purpose by end-of-project. The stability of the Honduran Coffee Institute (IHCAFE) in terms of administrative and field personnel since the first evaluation has translated into steady progress in implementation. The extension service has maintained about the same level of capacity that existed at the time of the first evaluation, augmented by the important and effective use of para-technicians. The credit activities are proceeding ahead of levels projected by the Project agreement. The majority of the project participants are following the technical recommendations to the extension agents.

Lessons Learned - (1) the importance of profitable technical recommendations to accompany credit; (2) the necessity of continually improving intra- and extra-institutional communication and coordination; (3) the feasibility of incorporating private financial institutions into a small farm credit system; (4) the feasibility of using para-technicians for direct farmer contact.

Achievements/Impact/Problems - The evaluators state that most of the objectives of the Project will be accomplished by the specified end-of-project. The completely renovated coffee plots are generally in excellent technical condition and are producing at levels considerably above those anticipated. Credit is reaching the project recipients, although sometimes with delay. Recipients appear very receptive to the technical recommendations. Instruction in farm and financial management generally has not occurred. The foreign technical assistance is effective. Institutional arrangements for integrating the project into IHCAFE, e.g., establishing information flows, lines of authority and responsibility and administrative procedures, are incomplete.

Impact has not to date been measured, but the production from renovated plots is above expectations. With present (at time of evaluation) high coffee prices, Honduras has maintained its export levels. A prospective problem is that insufficient effort is currently being spent on crop diversification and other preparations for a decline in coffee prices, which will occur.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Not supplied.

Anticipated Constraints - None mentioned.

Relative Priority/Mission Objectives - AID/Honduras is pursuing a production-oriented agricultural strategy. The Mission is focusing on those small and medium sized traditional farms that have the potential of substantially increased levels of production. This project has enabled beneficiaries to increase yields, while production of those not participating is declining, principally due to coffee rust and insect infestation. This has permitted Honduras to maintain its national production levels.

C) PROJECT DESIGN -

Strategy - The project aimed to increase IHCAFE's ability to help small farmers, to improve the technology and management capacity of farmers growing coffee, and to put a viable, self-sustaining credit system in place.

Host Country Implementation - The Honduran Coffee Institute is the primary implementing institution, with credit being delivered through public and private banks.

Components - Components include: (1) A revolving loan fund, administered through the Central Bank, to make credit available to small farmers from local private banks with the assistance of IHCAFE credit agents; (2) In-service training to improve the capacity of IHCAFE extension agents to transfer technology to coffee farmers; (3) Area profiles to determine the particular needs of differing regions in the country; (4) On-farm supervisory visits by extensionists for farmer education about improved technology packages and management procedures; (5) On-farm tests of experiment station findings; (6) Demonstration plots.

Resources - AID provided \$20.25 million (approximately five percent grant and the remainder loan) to accompany \$29 million in Honduran government counterpart funds.

Timeframe/coordination - The project began in 1981 with final input delivery scheduled for 1987.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was conducted by Dr. Ronald Tinnermeier of the Dept. of Agricultural and Natural Resource Economics at Colorado State University.

Host Country Participation - None mentioned.

Time Period - The evaluation was conducted from December 20, 1985 until January 24, 1986.

Methods - Methodology included: examination of the results of the first evaluation, a review of periodic IHCAFE reports, consulting reports, and USAID documents and files since the first evaluation; results of mini-evaluations carried out during 1985; personal interviews with IHCAFE, bank, and USAID personnel, technical advisors, farmers, and other interested parties.

Cost - The evaluation was paid for with \$10,000 of project budget funds.

Support Arrangements - Completion of the evaluation required 10 person-days of Mission professional staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Not applicable. This evaluation covers project progress since the first evaluation.

Validity of Major Assumptions - The Government of Honduras has not been able to comply with the goal of increasing the number of coffee extension agents in the field. In response, the project has hired para-technicians, who make field visits to farmers. Working on a part-time basis, these para-technicians are often project beneficiaries themselves. This has worked well.

The world price of coffee has remained sufficiently high to maintain coffee-growing as a profitable enterprise in relation to other crops, but major fluctuations remain a constant concern.

An original delay in the provision of loan funds is reflected in the fact that the repayment stream is only now beginning. Farmer training is below original estimates, but, with the use of para-technicians, is adequate. Costs of foreign assistance, vehicles, etc., have exceeded proposed figures. All other inputs are on or ahead of schedule.

Output Attainment -

Output	End of Project <u>Target</u>	<u>Current Status</u>
New Farmers Serviced	3000	4584
New Farmers Receiving Training	3000	4125
# of Manzanas Using Improved Varieties	6000	5784
# of Manzanas Fertilized	6000	5205
# of Manzanas Treated for Pests	6000	5205
# of Manzanas Under Improved Cultivation	6000	5784
# of Manzanas w/ Advanced Pruning Techn.	6000	None
# of Manzanas under Proper Shade	6000	4000
# of Manzanas at Optimum Plant Density	6000	5784

Source: Evaluation Report, Executive Summary, p. 12, '/86.

Viable, self-sustaining credit system: By 1985, reflows were intended to finance farmers beyond the original participants; due to slow start-up, currently reflows from nursery loans are being held in reserve. Other reflows are just beginning.

Purpose/Indicators Progress - The evaluators state that most of the objectives of the Project will be accomplished by the specified end-of-project. The completely renovated coffee plots are generally in excellent technical condition and are producing at levels considerably above anticipated. Credit is reaching the project recipients, although sometimes with delay, and they appear very receptive to the technical recommendations. Instruction in farm and financial management generally has not occurred.

Impact - Not supplied.

Contribution toward Planned Goal - The sector goal is to increase the incomes and quality of life of rural farm families while increasing national production. The evaluation does not address this issue directly.

External Factors - At about the time the project was being initiated, there was a drop in Honduras's coffee export quota in response to the falling world price of coffee. Now, the opposite is occurring. This uncertainty makes it very difficult to project future credit needs and producer interest. As reviewed in the first evaluation report, administrative changes seriously affected the project in the initial stages. The recent election of a new President may also bring some disruptive changes in administration of IHCAFE and associated programs.

The important assumption listed in the original Project Paper that coffee would continue to be profitable relative to other crops still appears to hold. Nevertheless, one can be assured that prices will be coming down again after major world coffee producers respond to the current high prices. IHCAFE needs to plan ahead and counsel its borrowers in diversification and cash flow management for that eventuality.

Unplanned Effects - None mentioned.

Lessons Learned - (1) The importance of profitable technical recommendations to accompany credit. Prior to this project, IHCAFE had extended large amounts of credit through farmer groups for coffee, but there were very high rates of loan delinquency. The current emphasis on improved technology, especially where new, improved plants replace old, diseased ones, has been the difference. (2) The necessity of continually improving intra- and extra-institutional communication and coordination. (3) The feasibility of incorporating private financial institutions into a small farm credit system. This project has been relatively successful in getting private banks to join. Three private banks have handled about 44 percent of the value of loans disbursed through the end of 1985. One bank is now experimenting with taking complete responsibility for technical assistance and credit using project funds and guidelines. (4) The feasibility of

using para-technicians for direct farmer contact. Most of the para-technicians are coffee growers themselves and the majority have been participants in the project. Their assistance is helping the limited number of extension agents reach a larger number of borrowers. However, this approach has not been operating long enough to allow identification of major problems or weaknesses, and the definition of the para-technicians' primary function is still in process.

Project Title: Fish Production System Development (FPSD)
Project Number: 532-0059 Mission: Jamaica

PACD: 1985 Date of Evaluation: 11/84
LOP: \$3.42 million Type of Evaluation: Final
Host Country Contribution: \$4.86 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To develop the capacity of Jamaican Government institutions to increase fish production throughout the country, and to establish freshwater fish farming as a viable farming activity.

Findings - The project's most important achievement has been to establish a successful new industry in Jamaica. The technology and skills involved in freshwater Tilapia production have been successfully transferred to a government research and extension agency as well as to private industry. A number of farmers have adopted the technology and have been able to increase their incomes through their Tilapia production and sales. However, the project unintentionally did not turn out to be a small farmer development project since many owners of the small farms are, in fact, medium-sized farmers or business and professional people for whom fish farming is one of several business ventures.

Lessons Learned - (1) Tilapia farming has the potential to become a viable industry in Jamaica and similar developing countries in the Caribbean. (2) In trying to develop an industry around smallholder production, specific plans (that is, a strategy) must be developed early on to keep large farmers from seizing control of the industry. (3) Production is easier to set in motion than marketing, which must overcome social, cultural, and economic barriers. Assumptions of ready markets for fish products is the single most common mistake made in fish expansion programs in developing countries. (4) Aquaculture is such a relatively new and inexact science that new technology may appear constantly. (5) Most universities have a tendency to use in-house expertise to the extent that certain objectives and ideas are often neglected. (6) Changes in project direction must include environmental reassessment, especially when new technologies are involved. (7) Activities such as research and training, which are not directly remunerative, are difficult to sustain beyond the time when donor funding for a project is withdrawn. Government commitment to sustain these facilities should, therefore, be obtained early in a project and monitored throughout its life.

Achievements/Impact/Problems - Since Tilapia competes well with fresh fish imports, domestic production should eventually reduce foreign exchange outflows, although production is still too small to have a measurable effect on the external account.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - The government of Jamaica began promoting inland fisheries in Jamaica in the mid-1970's, beginning with the strategy of starting a small research and institution-building project followed by a production project. Technical and cost-benefit analyses were carried out in the late 70's.

Anticipated Constraints - None mentioned.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - The overall objective of the project was to establish a commercially viable inland fishing industry in Jamaica focusing on extension and production of freshwater Tilapia and on the low-income people of Jamaica. The major emphasis was on expansion of pond acreage and increased production of Tilapia.

Host Country Implementation - The project was housed within the Jamaican Ministry of Agriculture. Agro 21, a special secretariat of the Prime Minister's office responsible for the promotion of agriculture, was also involved in project planning and training.

Components - (1) The provision of a large complement of technical assistance furnished by Auburn University, (2) funding for construction of new facilities at two different locations, and (3) increased training for existing and future project staff.

Resources - AID provided \$3,415,000 to supplement \$4,858,000 in Jamaican counterpart funds.

Timeframe/coordination - The project began in June 1979, with final input delivery scheduled for 1985.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was carried out by a two person team from Development Alternatives, Inc. No names or qualifications were included.

Host Country Participation - None mentioned.

Time Period - November 7-14, 1984.

Methods - The team obtained information from a number of written sources, including the internal documents of the Inland Fisheries Unit (IFU) and the reports of the technical assistance team from Auburn University. The team also visited several fish

farms and interviewed key respondents in the public and private sectors. In addition to the IFU staff, the team met with officials of the Ministry of Agriculture; Agro 21; the Urban Development Corporation (UDC) and Aqualapia Jamaica, Ltd., which are parastatal enterprises involved in fish farming; and several private fish farmers (corporations and individuals).

Cost - Not supplied.

Support Arrangements - Not supplied.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Not mentioned.

Validity of Major Assumptions - The evolution of the project from one aimed at working primarily through small farmers to a project in which the principal actors are large commercial enterprises was due to three primary factors: (1) the distribution and marketing advantage of large entities in an aquaculture industry which results in economies of distribution (i.e., large farms are more likely than small farms to have their own transport, and since they also have more frequent harvests they are able to guarantee a more regular supply to buyers); (2) a shift in government policy with the change of leadership in both the U.S. and Jamaica (detailed below in "External Factors"); and (3) it was easier to conduct extension work with a small number of large farmers than with a large number of small farmers.

Input Delivery - The PES gives no information on the delivery of inputs other than a statement that "there exists a problem related to the continuation of training for extension officers and specialized senior project staff."

Output Attainment -

	TARGETS <u>1979</u>	REVISED <u>1983</u>	ACCOMPLISHMENTS <u>AS OF 12/84</u>
Training			
Long term	5	---	8
Short term	932	---	297
Project Staff	12	---	5
Farmers	920	600	291
Fingerlings (numbers)	13,000,000	2,300,000	5,533,961
Project Staff	160	160	127
Students Trained	50	45	75
Participating Farmers	1280	600	291
Acreage Ponds	1186	580	525
Foodfish (lbs)	6,000,000	1,323,000	1,138,780

Purpose/Indicators Progress - Tilapia production has been enthusiastically embraced by a large number of private farmers, as well as by several public and private enterprises, thus estab-

lishing a sound basis for increased food production. The transfer of technology was accomplished through a combination of training, technical assistance, and capital support. Farmers have reported yields of at least 2000 lbs. per fifteen-production cycle, which, given predation and other constraints, is considered high.

Impact - According to the PES, the project lacked a strategy to ensure that small farmers would become the main producers and beneficiaries of the project. Rather than evolving an extension strategy that focused on outreach to the smallholder, the planning documents simply stipulated that this would happen. It should have been foreseen that the industry, once its feasibility had been demonstrated, would inexorably be taken over by large corporate and private interests unless a strategy was developed to prevent it.

Contribution toward Planned Goal - The subgoals of the project were to: reduce foreign exchange drain from the import of food, increase income and employment, while improving nutrition in rural areas, and to establish the foundation for a regional training program in fish production. Since Jamaican Tilapia competes well with fresh fish imports, domestic production should eventually reduce foreign exchange outflows; however, production is still too small to have a noticeable effect on the external account. No foundation for a regional training program in fish production was established.

External Factors - There was a shift in government policy with the change of leadership in both the U.S. and Jamaica. Reacting to adverse economic conditions, the Jamaican government placed greater emphasis on increasing production and growth and relatively less on the distribution of benefits.

Unplanned Effects - (1) As explained above, this did not turn out to be a small farmer development project. (2) At least two large commercial operations have begun to use a Tilapia farming technology that is potentially more productive than the technology employed by the project. (3) In the southeastern parishes served by the project, the production of Tilapia has increased so rapidly that existing distribution and marketing channels are unable to handle it. (4) The continued growth of the aquaculture industry will require a steady supply of trained specialists for some time to come. (5) In St. Catherine Parish, where the largest concentration of fish farming exists, the project may have exacerbated two related environmental problems: saltwater intrusion and shortages of fresh drinking water.

Lessons Learned - (1) Tilapia farming has the potential to become a viable industry in Jamaica and similar developing countries in the Caribbean. (2) In trying to develop an industry around smallholder production, specific plans (that is, a strategy) must be developed early on to keep large farmers from seizing control of the industry. (3) Production is easier to set in motion than marketing, which must overcome social, cultural,

and economic barriers. The assumption of ready markets for fish products is the single most common mistake made in fish expansion programs in developing countries. (5) Aquaculture is relatively such a young and inexact science that new technology may appear constantly. (5) Most universities have a tendency to use in-house expertise to the extent that certain objectives (often business-oriented) and ideas are often neglected. It is not likely, for example, that a successful fish farm operator would accept assumptions of unlimited market and no distribution problems without careful pre-study. (6) Changes in project direction must include environmental reassessment, especially when new technologies are involved. (7) Activities such as research and training, which are not directly remunerative, are difficult to sustain beyond the time when donor funding for a project is withdrawn. Government commitment to sustain these facilities should, therefore, be obtained early in a project, and the commitment should be monitored throughout its life.

Project Title: PFP Small Farmer Production/Marketing
Project Number: 532-0097 Mission: Jamaica

PACD: 6/85 Date of Evaluation: 4/85
LOP: \$300,000 (approx.) Type of Evaluation: Final
Host Country Contribution: Not supplied

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - This was a pilot project to test the effectiveness of Partners for Productivity/Agribusiness Council (PFP-AC) technical assistance in expediting the development and performance of Producer Marketing Organizations (PMO).

Findings - The Bushy Park PMO is functioning and is actively recruiting new members; PMO sales have increased rapidly every month. The PMO Board carries out its decision-making in an analytical manner, showing concern for cost-effectiveness and the welfare of the organization. The staff is being trained in procurement, accounting, and distribution. The relationship between the PMO and its farmer-members is quite good. There is a realistic prospect that the PMO can become self-sufficient and economically viable within three to four years. The evaluation recommends that the project be extended and expanded to include a pilot credit program.

Lessons Learned - None supplied.

Achievements/Impact/Problems - The Bushy Park PMO has been organized and registered, and it has recruited close to 200 members of whom approximately seventy-five regularly market their produce through the PMO.

The lower prices at the PMO's green grocery as compared with the Old Harbour market indicate potentially significant benefits to consumers from the PMO system of marketing.

The management capacity of the PMO is still quite weak and constitutes one of the limiting resources in its bid to be self-sustaining.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - This pilot was part of the Agricultural Marketing Development Project, a Ministry of Agriculture project jointly funded by the Government of Jamaica and USAID. The major assumption behind the proposed reforms of Jamaica's food marketing system was that it was relatively inefficient, due to the extreme decentralization of marketing channels whereby produce moves from a large number of small holdings through a large number of small traders to thousands of household consumption units.

Anticipated Constraints - The negative consequences of the Jamaican food marketing system were perceived as: a reduction in

the marketed output, lower average quality of produce, and lower returns to the producer.

Relative Priority/Mission Objectives - See "Factors Leading to Project Selection" above.

C) PROJECT DESIGN -

Strategy - The major reforms proposed under the Agricultural Marketing Project (to which this was a complementary project) included the development of producer marketing organizations (PMOs); the ownership and operation of produce assembly and grading stations by the PMOs; the establishment of a number of sub-terminal wholesale markets; and the establishment of a new division in the Ministry of Agriculture to support these reforms through the following mechanisms: organizational development, research, the development of quality standards, training of farmers and handlers in post-harvest techniques, and the dissemination of market news and information.

Host Country Implementation - Working with Jamaican PMOs (Bushy Park in St. Catherine and Rhymesbury in Clarendon), Partners for Productivity was responsible for production issues and the Agribusiness Council for business/management assistance.

Components - (1) the development of Producer Marketing Organizations to market produce in two pilot areas; (2) the establishment of a well-functioning interface between the small growers and the marketing organization; (3) the provision of technical assistance and training to the PMO's in areas such as organization, distribution, and financial management; (4) assistance to groups of predominately small farmers in the two pilot areas for the purpose of increasing the volume and improving the quality of fruit and vegetable production; (5) the facilitation of penetration of the U.S. market, development of relationships with U.S. importers and distributors, and monitoring of the performance of these U.S. business contacts.

Resources - The project received funding of "little more than \$300,000." It appears that all of this funding was provided by AID.

Timeframe/coordination - The project was funded for a two-year period beginning in June of 1983. The evaluation recommended an additional three-year period to allow a smooth transition to PMO management of the yet-to-be-constructed AGS (sub-marketing centers), and related marketing activities.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was conducted by Dr. Desmond Jolly of the Department of Agricultural Economics at the Univ. of California at Davis.

Host Country Participation - None mentioned.

Time Period - April 1-13, 1985.

Methods - Informal survey of produce wholesalers, supermarkets and green groceries in Kingston; farm visits; observations of PMO operations including: procurement, storage, shipping, record keeping, and decision-making were facilitated by visits to the PMO facilities at Gutters; board meeting; interviews with senior staff and technical assistance experts at the Ministry of Agriculture.

Cost - Not supplied.

Support Arrangements - Not supplied.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The initial development of the PMO was frustrated by the orientation of the original board which was inclined to restrict the membership to not much more than the original small group.

Validity of Major Assumptions - In design, the project failed to appreciate the constraints posed by the PMO's shortage of working capital which limits the purchase of inputs, consequently hampering the application of fertilizers and pesticides. Few of the farmers in the area have sufficient cash flow to increase their per acre outlays significantly, particularly where the market is perceived as uncertain.

Input Delivery - "Occasionally, PFP's work has been affected by the slow receipt of grant disbursements from AID, and dealings with the local governmental system (particularly customs clearances) have also been a problem."

Output Attainment - The Bushy Park PMO has been organized and legally registered with close to 200 members of whom approximately seventy-five regularly market their produce through the PMO. Sales have increased rapidly, growing each month from a level of 7,419 pounds in September 1984 to 69,220 pounds in March 1985. The Rhymesbury PMO never materialized as PFP decided to concentrate on Bushy Park.

PFP has performed a substantial amount of largely on-farm research, directed at grower problems or testing potential new crops and pest control techniques. Extension workers have provided information from these experiments and marketing surveys to member farmers.

The green grocery operation is now functioning. Weekly sales have been increasing, and the green grocery could be self-supporting within a year.

The PMO, though limited by the above-mentioned shortage of working capital, stocks a supply of chemicals, fertilizers, and seeds for purchase by its members.

Purpose/Indicators Progress - PMO income derives essentially from the margin for handling farmers' produce - fifteen percent of gross sales value. To cover costs at the present level of operation, the PMO would need to increase sales by approximately sixty percent. The evaluators conclude that, given the increase of sales over the brief period of active marketing, this target could be comfortably achieved within a year.

About five to ten percent of member produce is currently sold on the export market.

Impact - The lower prices at the PMO's green grocery as compared with the Old Harbour market indicate potentially significant benefits to consumers from the PMO system of marketing.

Contribution toward Planned Goal - Not supplied.

External Factors - The Jamaican dollar has been substantially devalued, making export crops more competitive but increasing the cost of agricultural inputs. Accompanying this devaluation is a general policy of fiscal and monetary austerity with concomitant increases in bankruptcies, unemployment, high interest rates and a general unavailability of credit. This is causing a reduction in aggregate demand. Demand for higher cost foods will likely decline, while demand for other foods, high in calories and vitamins but low in relative cost, should increase. The government austerity program will cause off-farm income earning opportunities to decrease, bringing greater reliance on farm income.

Unplanned Effects - Calaloo has become a steady source of sales for the PMO as it has become a dietary staple for the urban poor in Kingston. This is due in part to the deteriorating economic conditions, as calaloo has become a staple of low income households.

Lessons Learned - None supplied.

Project Title: Managed Fish Production
Project Number: 525-0216

Mission: Panama

PACD: 12/84

Date of Evaluation: 1/86

LOP: \$1.1 million

Type of Evaluation: Special

Host Country Contribution: None

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - This was a pilot project to ascertain the viability of developing a full scale managed fish program as a means of directly improving the nutritional status of the rural poor.

Findings - According to the PES, "the findings of this and other studies indicate marginal economic benefits and complex administrative and social constraints to achieving technical self-sufficiency."

Lessons Learned - The integration of fish farming, as a supplement to other livestock activities, is a viable means of increasing net income, or, as the study states, to lower the per pound cost of animal protein produced. Fish production alone is only viable if the value of fish is relatively high, and if technical assistance is excluded as a cost.

Achievements/Impact/Problems - As an analysis of only the economic aspects of the project, this evaluation does not examine implementation or design issues.

This economic analysis of the agro-aquaculture modules found that integration of fish production with other types of livestock production consistently lowered the cost per pound of animal protein production. The budget analyses indicate that integrated systems in isolated rural areas are economically viable for the farmer. The chicken-fish alternative yielded highest net returns. Integration of fish culture with other livestock enterprises increased net returns in every instance.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Since 1976, the Government of Panama has promoted the construction of freshwater fish ponds in many of the poor, rural areas of Panama. These areas are characterized by chronic malnutrition and deficiencies of certain essential amino acids that are normally obtained through consumption of animal protein. In 1980, AID initiated a project designed to develop a simple fish culture system emphasizing farmer self-sufficiency in fish seed production for either home consumption or sale. In order to minimize production costs and to maximize benefits to the community, the ponds were integrated with other types of livestock and agricultural enterprises.

Anticipated Constraints - This project involved placing a technology (aquaculture) in an area without any history or experience in the use of that technology. The project required a high degree of integration and coordination on the part of local people in the development and utilization of resources.

Relative Priority/Mission Objectives - The attached PES mentioned that "no further USAID/Panama assistance in this specific area of aquaculture is planned at this time.

C) PROJECT DESIGN -

Strategy - Not supplied.

Host Country Implementation - The implementing agency was the Direccion Nacional de Acuicultura (DINAAC), with technical support from the Auburn University Department of Fisheries and Allied Aquacultures.

Components - Not supplied.

Resources - The original grant agreement was for \$992,000 from AID to supplement Government of Panama resources already committed to fish farming research. On the extension of the PACD in 1/84, another \$150,000 was provided by AID to increase total project funding to \$1.14 million.

Timeframe/coordination - The grant agreement was signed in September 1980, and project activities began in June 1981. In January 1984, the PACD was extended to the end of 1984.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was conducted by Upton Hatch and Carole Ruth Engle, who were both working at the Auburn University Department of Fisheries and Allied Aquacultures.

Host Country Participation - Three studies were planned to evaluate this project. The study to evaluate the social and administrative feasibility of the program was completed in 1983, and the impact on nutritional consumption was examined in 1984.

An economic and financial study was first done under contract in August 1984 by a local firm. The economic analysis of this work was considered weak, and no clear conclusions were obtainable.

Combining that study with baseline data collected in the field, two more economic analyses were performed separately by Hatch and by Engle. However, Mission personnel considered the conclusions from these analyses to be unclear, also.

At that point, Engle and Hatch were brought to Panama to produce this report.

Time Period - The first economic analysis was completed in August 1984. This report was completed in September 1985. No information was included on the length of time spent in the field.

Methods - The analysis method employed was to use pro-forma investment analyses and profit-and-loss statements (called budget analysis) for the average farm engaged in: fish culture, swine culture, cattle culture, chicken culture, duck culture, and of the combination of fish with any of the others.

Cost - Not supplied.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - As an analysis of only the economic aspects of the project, this evaluation does not examine implementation issues.

Validity of Major Assumptions - To expect people in most of the villages in the project area to learn aquaculture technology, to integrate it with high intensity chicken or swine production, and to learn to do this with a high return on investment within two years is not realistic.

Input Delivery - The study does not examine the delivery of inputs in this project. It assumes the timely and complete provision of required inputs as part of its analysis.

Output Attainment - This economic analysis found that integration of fish production with other types of livestock production consistently lowered the cost per pound of animal protein production. The budget analyses indicate that integrated systems in isolated rural areas are economically viable for the farmer. The chicken-fish alternative yielded highest net returns. Integration of fish culture with other livestock enterprises increased net returns in every instance.

Purpose/Indicators Progress - The PES states that progress towards the project purpose has not been established. At least two or three more years of basic research and extension work need to be conducted to improve the production of the ponds and to refine analysis techniques.

Impact - Not supplied, but the PES states that only marginal economic benefits have accrued.

Contribution toward Planned Goal - The goal of the project is to study the feasibility of improved productivity and expanded fish-pond operation as a means of improving the nutritional status and income of the rural poor. The outcome of the study, though not conclusive, is at a minimum discouraging.

External Factors - In 1983, the central provinces were seriously affected by the worst drought in seventy-five years. This lowered output in all livestock operations and weakened the validity of the data base.

Unplanned Effects - None mentioned.

Lessons Learned - The integration of fish farming as a supplement to other livestock activities is a viable means of increasing net income, or, as the study states, to lower the per pound cost of animal protein produced. Fish production alone is only viable if the value of fish is relatively high, and if technical assistance is excluded as a cost.

Project Title: Non-Traditional Agricultural Export Promotion
Project Number: 527-0166 Mission: Peru

PACD: 5/87 Date of Evaluation: 6/87
LOP: \$223,500 Type of Evaluation: Final
Host Country Contribution: Not supplied

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - This pilot project was to support the on-going activities of the National Development Foundation (FDN), an organization designed to generate commitments between U.S. firms and Peruvian producers, agribusiness, and export firms. These agreements were to assist the organization and installation of production, packing, and export-import arrangements for non-traditional agricultural products in five coastal valleys.

Findings - The FDN has generated unique and specific knowledge about the agricultural production and export process including data on buyers and markets, preparation of technical and economic feasibility studies, and the development of field trials for export commodities. The project developed linkages between potential importers especially in the U.S. and Peruvian commodity producers. Effective technical assistance and workshops dealt with specific technical and economic issues to initiate non-traditional agricultural export projects.

Lessons Learned - Market demand-oriented commodity development programs with small and medium producers can be successful if they involve the private sector, and facilitate access to export-oriented production, processing, and marketing assistance. Policy and regulatory constraints must be addressed in a dialogue with both public and private sector institutions to fully exploit the production and market opportunities demonstrated under this project.

Achievements/Impact/Problems - FDN activities effectively provided assistance to producers that they have not received from public sector institutions. This assistance has been in the areas of support for production, organization of producers into associations, and support in marketing and exporting. The evaluators strongly recommend further funding for the FDN to expand its activities begun in this pilot to a larger scale effort with significant impact on Peru's agricultural export sector. Continuation of the project should focus on continuing these efforts, and on integrating the FDN efforts and clients with the Organization of Larger Scale Exporters (ADEX), the Institute for Foreign Trade (ICE), the former GOP Agency for export Promotion (FOPEX), and with large-scale private sector farms involved in exporting.

B) PROJECT RATIONALE -

Factors Leading to Selection - The FDN's initial involvement in the project was as a local sponsor in a workshop on the potential for export-oriented agriculture proposed by the Washington-based Foundation for Multinational Management Education (FMME). As a result of the workshop's success, FDN and FMME collaborated to produce an inventory of the import needs and interests of 10 U.S. firms, with the assessment of the general production potential of farmers in five coastal valleys to respond to these opportunities. From August-November 1984, FDN's elaboration of a more specific plan of action with the collaboration of FMME was financed through a \$25,000 grant from USAID. Although no more grant funds were supplied to the project until July 1985, the FDN used its own resources to continue activities in support of the proposed export operations.

Anticipated Constraints - There is a virtual lack of attention to exports or export policy within the Ministry of Agriculture. Those public entities concerned with export promotion emphasize the identification of markets rather than the development of local capacity to produce and deliver products to them. Key policy decisions are made and managed by other government entities (such as the Central Bank), all of whom share a general interest in export development, but whose primary objectives differ.

Relative Priority/Mission Objectives - Though the level of funding was small in this pilot project, the promotion of exports is considered both a LAC and a Mission priority. Because of the success of this pilot project, AID/Peru decided to reorient its FY 88 Agricultural Marketing and Agribusiness System Development Project (527-0310) to focus primarily on non-traditional agricultural exports.

C) PROJECT DESIGN -

Strategy - The FDN was to execute the coordination, information services, and promotion activities required to assist Peruvian agricultural producers, agribusinesses and agricultural product exporters to realize export deals and to motivate them to implement actions that are responsive to export market opportunities.

Host Country Implementation - The project was designed to give financial support to the ongoing activities of an indigenous Peruvian marketing and technical assistance firm. The FDN, with a permanent staff of 18 augmented by personnel contracted for specific projects, established linkages with the S&T Bureau's Project Sustain and the PRE Bureau's Fund for Multinational Management Education. PRE provided production, processing, and marketing technical assistance.

Components - (1) Identify producers willing to produce for export markets; (2) Consolidate the formation of producer groups and leaders to facilitate organization, coordination and production problem-solving; (3) Continue to provide technical assistance services and analysis of market opportunities and requirements; (4) Consolidate the establishment of a commercial and market intelligence information system; (5) Develop production, post harvest management, and marketing opportunity studies in association with the private sector; (6) Facilitate direct contact between Peruvian producers and exporters with foreign and especially U.S. businesses; (7) Conduct workshops to bring together the U.S. private sector and Peruvian private sector agricultural producers/processors and exporters.

Resources - AID provided \$224,000 to FDN to expand its ongoing activities. The evaluation did not specify the total size of the FDN budget.

Timeframe/coordination - The original funding was provided in 1984, with a PACD of 5/87.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team was composed of Dr. Vilma Gomez from the National Agrarian University and Dr. Richard Webb.

Host Country Participation - Dr. Gomez is a Peruvian citizen, and Dr. Webb is a Peruvian resident.

Time Period - Not supplied, though the evaluation was completed in 5/87.

Methods - Methodology consisted of interviews with exporters, FDN staff, government officials and other persons involved in activities related to either agricultural exports or the FDN. Through these, the evaluators would obtain information to assess the project and the general potential for agricultural exports. A special questionnaire was sent to 53 exporting firms to supplement the general interviews.

The evaluation mentions that the methodology "varied during the evaluation period following changes in the evaluation team. fields of agriculture and agricultural economics; in the final report, these aspects have been treated in a more summary way, and greater emphasis has been placed instead on general economic and institutional aspects."

Cost - The total cost of the evaluation was \$8,500.

Support Arrangements - Completion of the evaluation required the assistance of 20 person-days of Mission office/professional staff and 20 person-days of Borrower/Grantee professional staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Not applicable (the funding was to support the continued work of an existing organization).

Validity of Major Assumptions - It was assumed that agro-industrial exports offered an especially attractive opportunity for short-run impact on the balance of payments while fitting in with the government's broader priorities of agricultural development and economic decentralization. Though this assumption was not directly tested by the project, the successful participation of small to medium farmers and the positive government response indicate strong potential for an expanded version of the pilot.

Input Delivery - Annex C of the evaluation includes an activity/output schematic as part of the terms of reference. This includes the following inputs: broker services, information services, technical assistance, market information and intelligence, new product development, organizational services, and trade association formation. However, the evaluation does not discuss the schedule of delivery and success of these various inputs.

Output Attainment - (1) The FDN has amassed a wide breadth of data and general knowledge about the agricultural export process valuable to producers, exporters, and policy makers. Though much of this knowledge is imbedded in the individuals on its staff at present, the Foundation is working toward making it more widely available through studies, publications, training, and its information service. (2) A small core group of farmers has been trained in production for export as well as in other stages of the export process. (3) A step-by-step methodology has been developed to draw farmers into export ventures. (4) The FDN has made contacts with a number of potential large-scale buyers in the U.S.; some of these have already resulted in export contracts being signed. In addition, many of these contacts have provided seeds, technical assistance, and other inputs which might eventually lead to a significant increase in export activity. (5) A number of institutional groups have been formed to promote exports on the producer level, organized primarily by crop. (6) The FDN has created Olimpus, a prototype export company with participation of producers and FDN staff as shareholders. Due to charges of conflict of interest between the inclusion of FDN staff in a private venture and the organization's reputation as a disinterested provider of services to all exporters, the FDN has sought to counter criticism by organizationally and physically withdrawing from Olimpus.

Purpose/Indicators Progress - The FDN used the assistance under this project and AID/W centrally funded activities to generate new investments and export sales totalling over \$3.4 million, demonstrating the existence of significant market opportunities and the ability of Peruvian producers to supply these markets.

Impact - The evaluation team commends the FDN on its effort and performance during the pilot project. However, given that the desired developmental impact of the project is to substantially increase Peru's non-traditional agricultural exports, it is first evident that a larger scale effort directed at the broader policy and institutional environment is needed. Success of expansion would depend on a number of factors external to the FDN itself, including the bureaucratic regulations and institutional incentives created by the Peruvian government, and the policies of potential importing nations. Further, the FDN would need to expand its scope to develop linkages with larger export operations in addition to the new medium to small scale producers and exporters assisted by the pilot.

Contribution toward Planned Goal - The FDN has developed a demand-focused methodology to draw farmers into export activities by identifying potential market opportunities and working backwards towards the development of commodities to meet this demand. It also emphasizes working with groups of farmers in existing or potential associations.

External Factors - During the previous decade, the evolution of the economy had been characterized by low overall growth and stagnation in agriculture. Agricultural performance in Peru had been hurt by the loss of investment resulting from the political unrest. 1983's balance of payments emergency created a need for contractionary fiscal and monetary policies. The debt crisis and the government's debt policy have meant that Peru has lost its capacity to run large deficits on current accounts.

Unplanned Effects - None mentioned.

Lessons Learned - (1) Market demand-oriented commodity development programs with small and medium producers can be successful if they involve the private sector, and access to export-oriented production/processing/marketing assistance is facilitated. Policy and regulatory constraints must be addressed in a dialogue with both public and private sector institutions to exploit fully the production and market opportunities demonstrated under this project. (2) Any effort to expand agricultural exports will require that processing or trading companies provide a considerable amount of education regarding the quality and packaging requirements of the international market, in addition to technical assistance for production. (3) A private sector entity like the FDN has advantages over public sector counterparts in the kind of hands-on export development it has been doing because of its greater flexibility of action; i.e., it is inhibited by fewer legal limitations on what it may do.

Project Title: Integrated Regional Development
Project Number: 527-0178

Mission: Peru

PACD: 1987

Date of Evaluation: 6/85

LOP: \$23.1 million

Type of Evaluation: Final

Host Country Contribution: \$6.5 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The Integrated Regional Development project was a pilot project designed to test the concept that strengthening rural-urban linkages around key market towns will enhance rural development in a targeted region. At the same time, the project was intended to be, and was, an experiment in decentralized development.

Findings - (1) This project has succeeded in making respectable progress toward its goal and objectives; (2) the current Peruvian budgetary and administrative process is antithetical to decentralization; (3) the effectiveness of the project offices showed that trainable human resources are available at the departmental level, although their outreach technical assistance will not continue after the project; (4) promoting rural development by strengthening rural-urban linkages in and around key market towns is a viable development concept for Peru as demonstrated in the pilot project; (5) municipalities are a critical potential source for mobilizing local capital, intellect, and labor for development; (6) local participation in project selection, planning, labor, and in-kind inputs is a vastly underutilized resource in Peru's rural areas; (7) decentralization of development is not only a resource but also a political expedient that AID should pursue. However, a key to decentralization will be Peru's willingness to adjust its present system of administration and budgeting; (8) the key market towns concept and Urban Functions in Rural Development (UFRD) methodology were only partially implemented. Project identification and funding did not often follow planning priorities; where implemented the concept proved effective.

Lessons Learned - (1) If decentralization is to be encouraged in a historically and factually highly-centralized environment, the influence of AID must be exerted through the whole inventory of relevant projects, rather than only in the overtly "decentralizing" project; (2) The key market towns concept and rural-urban linkages strategy were sound means of promoting decentralized development in two departments; (3) the pursuit of both program goals and institutional development goals in the same project requires careful integration, so that program goals are pursued without outrunning the developing institutional capability; (4) training courses not followed up by technical assistance in implementation lose effectiveness; (5) local participation in infrastructure planning and implementation cuts costs and increases dedication to maintenance; (6) cooperation of "higher-ups" is essential to the internal development of institutions, but influence exerted from above subverts that internal develop-

ment; (7) where more than one new conceptual approach is introduced, perhaps a phased introduction is better than simultaneous introduction; (8) property registration is a cost-effective way for almost any municipality to generate revenue.

Achievements/Impact/Problems - Major achievement included successful testing of the urban-linkage concept in rural development, since projects in this category showed great success; proving that municipal real estate cadasters and registration programs are cost-effective, and give municipalities a start toward independent planning and development; and progress in creating interest in the concept of decentralized development within the very centralized Peruvian structure.

Impact was very positive for both irrigation and road projects--reporting such results as 20 percent more land under cultivation with higher yields, or additional harvests and increases in herd sites for irrigation, and better market and service access and higher prices for roads. The municipal cadasters showed a 1-2 year payback period, from additional taxes collected.

Problems arose chiefly from the centralization and politicization of development in GOP, and from political changes.

B) PROJECT RATIONALE -

Factors Leading to Selection - The hypothesis behind the project was that employment and productivity in a rural region can be increased through an integrating approach if decentralized regional planning and implementation capacity can be strengthened at the national, regional, and local levels to carry it out.

Anticipated Constraints - Peru has a long and deeply integrated history of centralized administrative and budgetary planning. The project was initiating a process antithetical to this philosophy.

Relative Priority/Mission Objectives - This project was a pilot intended to test the concept and methodology of decentralized planning in rural development for potential use in the design of other projects in Peru.

C) PROJECT DESIGN -

Strategy - The project set out to improve regional planning and implementation capacity through a program of technical and capital assistance and institutional development focused on the Departments of Junin in the south and Cajamarca in the north--both high sierra and selva dominated regions.

Host Country Implementation - The project was intended to strengthen the capacity of decentralized Peruvian institutions to identify, plan, and manage various subprojects. An important element of evaluation strategy was to determine the degree of

participation of beneficiaries in subproject identification, planning, construction, and maintenance.

Components - (1) Strengthen decentralized regional planning and project implementation capability at the national, departmental, and municipal levels; (2) establish a mechanism for financing and executing priority sub-projects in market towns and rural areas selected by the National Planning System; (3) strengthen decentralized regional planning and municipal development capabilities through assistance to the National Institute for Municipal Development (INFOM) and the Technical Assistance and Training Program for Departmental Development Corporations (PATC-CORDES).

Resources - AID provided \$16.1 million, matched by \$5.5 million of funding from the Government of Peru.

Timeframe/coordination - The project began in 1979, with a scheduled completion date of 1987.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team was coordinated by regional development expert Eric Chetwynd, Jr. of AID/Washington S&T/RD/RRD. Other members included regional planners Dennis Rondinelli of Syracuse University and Patricia W. Salinas of the University of Texas, decentralization management expert Linn Hammergren of USAID/Peru, public works planning expert John Hatch of Rural Development Services, and Ronald Johnson, a specialist in municipal development, of the Research Triangle Institute.

Host Country Participation - None mentioned.

Time Period - The evaluation was completed in ten weeks from late March to early June, 1985.

Methods - The evaluation began in late March with a preliminary rural works projects field survey. Patricia Salinas arrived three weeks before the remainder of the team to arrange for team visits and individual interviews. The entire team spent two weeks in the field reviewing documents and interviewing participants. A workshop was held by the team to register lessons of the project and to set out future actions on decentralization. After follow-up interviews in Lima and preparation of the individual reports and synthesis, the bulk of the team returned to the U.S. Dr. Salinas remained in Peru for one week after the departure of the team to finalize the report, incorporating Mission and Government of Peru feedback.

Cost - \$37,062.

Support Arrangements - Completion of the evaluation required Mission professional staff of 60 person-days and support staff of 20 person-days.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Project offices were established in the capitals of the two regions in 1979. Technical and capital assistance organizations were established to implement the project. In 1982, these organizations were briefly placed directly under the Prime Minister's office, and then merged organizationally into Departmental Development Corporations. At the same time, two national level components were added to begin spreading the project components to other regions.

Validity of Major Assumptions - It is possible in Peru to create decentralized local development capability drawing from local human resources. Implementation of decentralized planning is difficult in the CORDES because of the political aspect of choice of projects, and extreme central control. However, municipalities show promise of developing and implementing their own programs. Promoting rural development by strengthening rural-urban linkages around key market towns is viable.

Input Delivery - The decision to implement the Key Market Town Development Fund within the Housing Bank has proved to be a great hindrance to financing local projects. Half of the \$5 million fund was transferred to national technical assistance and training programs in 1983, and the remainder has been committed to electrification projects and refrigerated slaughterhouse and trout processing plant projects. The Key Market towns concept was only partially implemented, as only some of the rural public works projects were located in and around these towns. The survival rate for planned projects was below fifty percent after the central budget process had substituted more politically advantageous projects over those planned locally.

Output Attainment - Most of the rural public works projects planned under the project have been completed or are underway and a survey indicated that roughly 80% of beneficiaries are satisfied with the projects. Regional planning capacity was originally developed in the regional offices, but these capabilities were not integrated organizationally into the new structure after the 1983 reorganization. What survives are: the idea of regional planning, and some capable individuals to advance the concept and practice.

Purpose/Indicators Progress - Significant methodological improvements were made in regional planning and analysis methodology. However, pressures to move funds and delays in planning resulted in much less practical application of planning than would have been desirable.

Decentralized regional planning and municipal development capabilities are improving through the national level offices, INFOM and PATC-CORDES. The experience and technical competence gained through the project by the staff of both organizations represents a significant investment in future decentralization.

Impact - (1) Several municipalities increased their revenue generation in the pilot application of property registrations and cadasters; (2) agricultural sales in road project areas rose by more than 50%; (3) in irrigation project areas, agricultural yields increased and some farmers planted two crops per year for the first time.

Contribution toward Planned Goal - Evidence suggests that the project is succeeding in its goal of improving socio-economic development of project regions through increased employment and income opportunities in key market towns and surrounding rural areas. Irrigation projects are expanding the amount of land for crops and pasture; in some areas they are permitting double cropping for the first time. Roads from market towns into newly irrigated agricultural regions are creating new, more lucrative marketing opportunities for farmers and creating employment in commerce and processing in the towns. Roads into other areas of previously unexploited agricultural potential are having similar results on a much lesser scale.

External Factors - Political instability, leading to absorption of the original development organization (PRODERINS) in the CORDES, and other difficulties; extreme politicization of the choice of projects, and central control of the CORDES personnel and expenditures have made decentralized operations very difficult. Nevertheless, progress has been made, and the municipalities show promise as decentralized development agents.

Unplanned Effects - None mentioned.

Lessons Learned - (1) The key market towns concept and rural-urban linkages strategy were sound means of promoting decentralized development in two departments; (2) the pursuit of both program goals and institutional development goals in the same project requires careful integration, so that program goals are pursued without outrunning the developing institutional capability; (3) training courses not followed up by technical assistance in implementation lose effectiveness; (4) local participation in infrastructure planning and implementation cuts costs and increases dedication to maintenance; (5) cooperation of "higher-ups" is essential to the internal development of institutions, but influence exerted from above subverts that internal development; (6) where more than one new conceptual approach is introduced, perhaps a phased introduction is better than simultaneous introduction; (7) property registration is a cost-effective way for almost any municipality to generate revenue.

Project Title: Agricultural Planning and Institutional
Development
Project Number: 527-0238 Country: Peru
PACD: 12/88 Date of Evaluation: 5/86
LOP: \$17 million Type of Evaluation: Interim
Host Country Contribution: \$8.5 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The Agricultural Planning and Institutional Development Project (APID) was designed to increase GOP capacity to formulate sound, coherent agricultural policies and to improve the capability to efficiently manage the implementation of these policies.

Findings - Significant accomplishments have been achieved in four of the five components despite extraordinary political uncertainty and economic constraints. Particular areas of success include the creation of an Agricultural Policy Analysis group, completion of a national rural household survey, and support of an advanced training program at the National Agrarian University and abroad. Nonetheless, continued emphasis is required to institutionalize the changes which have been initiated prior to evaluation.

Lessons Learned - First, in project design, it is probably better to remove policy analysis tasks from program and budget offices within the Ministry. The bureaucracy's vested interests in the results of these analyses would naturally hinder objectivity. Second, administrative and management problems of the public sector were not clearly specified and prioritized in the project paper, leaving the expected outputs to be negotiated in-course. This left an added burden on the project advisors.

Achievements/Impact/Problems - This project has made excellent progress despite its own complexity, delays in availability of funding and untimely procurement, and an eight month hiatus in leadership of the primary advisory team.

According to the 1988/89 Action Plan, the Minister of Agriculture came to rely on the economic analysis of the policy group, supported use of this analysis in determining policies, and supported additional survey and study activities and the institutional strengthening of the group.

This project, like Peru as a whole, has been faced with a flight of human capital, an economic and financial crisis, fragmented leadership, and bureaucratic inertia. The availability of advisors has not coincided with anticipated schedules, while agreement on the definition of expected products has taken longer than hoped. Many of the real achievements of the technical advisors have arrived at critical implementation junctures just as the advisors' period of performance ends.

B) PROJECT RATIONALE -

Factors Leading to Selection - The Peruvian agricultural sector became severely decapitalized from the late 50s through the 70s, both through the loss of physical assets in anticipation of land reform and through emigration of trained scientists and administrators in the 70s, triggered by the confusion and uncertainty of the reforms and the ineptness of governance. From the military takeover in 1968 until 1984, agricultural policy was based on very limited and unreliable data. There was little recognition of the value of professional advice, a shortage of experienced administrative and technical management personnel, a limited view of the contribution of agricultural science to productivity, and an even more limited view of the importance of policy analysis in assuring a sustainable orientation of production to achieve development needs.

Anticipated Constraints - (1) Limited capacity to analyze alternatives and formulate coherent policy directions; (2) A virtual absence of reliable information to guide decision-making; (3) Public sector management systems which are inadequate to identify and correct problems; (4) a debilitating shortage of well-trained and experienced administrative and technical management talent; (5) lack of an effective mechanism for dialogue between the public and private agricultural sectors.

Relative Priority/Mission Objectives - According to the 1988/89 Action Plan, this project is the centerpiece of the Mission primary objective of increasing agricultural production in Peru.

C) PROJECT DESIGN -

Strategy - The project was intended to increase GOP capacity to formulate sound, coherent agricultural policy by dealing with five identified constraints: limited capacity to analyze policy alternatives and formulate coherent policy directions; the virtual absence of reliable information to guide decision-making; public sector management systems which are inadequate to identify and correct problems; the shortage of well-trained and experienced administrative and technical management talent; the lack of an effective mechanism for dialogue between the public and private agricultural sectors. Technical assistance was provided through two contracts with the Mid America Agricultural Consortium and Participating Agency Service Agreements with the Department of Agriculture, the Bureau of the Census, and the National Oceanographic and Atmospheric Administration.

Host Country Implementation - In the past, many AID-funded activities in Peru have been executed as "Special Projects" to bypass the GOP bureaucracy. This project was intentionally implemented by an office established within the Ministry of Agriculture to effect and institutionalize permanent changes to correct management problems which had plagued past projects. The

primary purpose of the office is to promote and provide information about the project within the Ministry.

Components - There were five areas of support this project was intended to give: (1) Agricultural Policy Analysis, consisting of the creation of an Agricultural Policy Analysis in the Ministry of Agriculture, supporting the Economic Studies Division in the Ministry of Economy and Finance, and enhancing the Evaluation and Monitoring Capacity of the Agricultural Sector Planning Office of the Ministry of Agriculture; (2) Information, including a national rural household survey, a continuous system of area and production statistics, and agroclimatic impact assessments; (3) Management, consisting of improved management in the Ministry of Agriculture, salary support for public agricultural sector administrators, and strengthening managerial effectiveness of the National Research and Extension Institute within the Ministry; (4) Human Resource Development through identification of suitable candidates for advanced training, support of the National Agrarian University, and support of the University of the Pacific; (5) Private Sector, with the establishment of an agricultural policy analysis unit in the private agricultural sector to encourage private participation in policy formation.

Resources - AID provided a grant of \$6 million and a loan of \$11 million to accompany GOP counterpart funds of \$8.5 million.

Timeframe/coordination - The Project Agreement was signed with the Ministry of Agriculture in 8/83, with conditions precedent to disbursement completed in 12/83, initiating a sixty-month implementation period.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included team leader Albert Brown, Director of International Management Consulting Services in the D.C. office of Coopers & Lybrand; Anthony Ormasa, a retired former AID Public Administration Advisor; and Dr. Arthur J. Coutu, Senior Agricultural Policy Analyst from North Carolina State University.

Host Country Participation - There was no host country participation in the evaluation.

Time Period - The evaluation was conducted from April 1-21, 1986, after approximately forty-five percent of the implementation period had elapsed.

Methods - Methodology included a review of project documents, implementation and work plans, and budgets provided by the GOP implementation units. Managers and advisors of all units of USAID/Peru and the GOP involved in planning and implementing the project were interviewed, as well as some members of their staff

and other individuals in the agricultural sector not directly involved in the project.

Cost - The total contract cost of the evaluation was \$46,151.

Support Arrangements - Completion of the evaluation required the assistance of ten person-days of Mission office/professional staff and thirty person-days of borrower/grantee professional staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The balance of a \$500,000 project planning allotment was provided as a bridge grant to enable the Project Coordinator to arrange staff, office space, and initiate planning by the time conditions precedent to initial disbursement were met. This rapid beginning allowed the project to begin in October 1984, approximately one year after project authorization.

Validity of Major Assumptions - The decision to institutionalize the Agricultural Policy Analysis Group within the Ministry of Agriculture may be unrealistic because the Ministry's program and budget office is assigned a policy analysis function, which presents a potential conflict of interest.

During implementation, a decision was made not to undertake the private sector activities. First, there was some doubt about the ability of the leading private sector commodity organizations to add policy input entirely objectively. In addition, the evaluators pose the question of the acceptability of private sector input to administration decisions at a time when the government is still attempting to establish its basic orientation.

Input Delivery - At the time of this evaluation, with forty percent of project time elapsed, only seventeen percent of the GOP counterpart funds had been executed, due to the general austerity program of the government and the impact of shifts in the exchange rate.

Due to a lack of acceptable guidance and management leadership, the Chief of Party resigned after only five months. In the nine months until another permanent Chief of Party was found, the project suffered from numerous problems of selection, timing, and utilization of other advisors.

Output Attainment -

(1) Agricultural Policy Analysis Support: The Agricultural Policy Analysis Group, established in June 1984, has developed a comprehensive list of midterm studies and has been carrying them out on schedule, though the studies have not been widely distributed. The Directors have served as senior agricultural policy advisors to the Ministers of Agriculture. The Agricultural Sector Planning Office, the budget wing of the Ministry of Agriculture, has used the "Logical Framework Methodology" to reprogram

all Ministry activities, and integrated these into the national budget, setting the basis for effective monitoring of implementation and eventual operational evaluations.

(2) Information Support: The National Rural Household Survey is virtually complete. Area production statistical sampling frames have been completed for two, and partially completed for three more, of Peru's twenty-four departments. For the Agroclimatic Impact Assessment, weather stations have been refurbished, data analyses performed, and a monthly weather summary and biweekly non-technical summary are being published.

(3) Management Support: Significant progress has been made in examining procedural problems of management and their improvement and documentation within the Ministry. However, this is a long term process which requires a close working relationship with the Director General of Administration. Within the National Research and Extension Institute, systems of computerized accounting and inventory control were developed and documented; these are now ready for broader testing and implementation.

(4) Human Resource Development Support: An Action Training Program which ran seventeen short courses for 580 Ministry employees in 1985 is programmed for repetition in 1986. A Training Division is being established in the Ministry for selecting additional staff for M.S. training at the National Agrarian University and abroad, and to continue to manage and evaluate the Action Training Program. Twenty MOA professionals are now studying abroad under fellowships. Another sixty applicants from regional universities as well as from the Ministry are being processed for further studies. An incentive-oriented compensation program stabilizes the graduate faculty at the National Agrarian University. Scientific equipment has been restored to usefulness and training in maintenance has been provided. The University is now heavily involved in selecting and training Ministry of Agriculture personnel and regional university faculty on site, prior to entrance in the graduate program.

Purpose/Indicators Progress - At mid-point of such a complex project, progress among components and activities is naturally uneven. However, the evaluators state that virtually all components can demonstrate significant accomplishments, which is even more remarkable considering the extraordinary political and economic changes occurring in Peru at the time.

Impact - According to the 1988/89 Action Plan, the Minister of Agriculture came to rely on the economic analysis of the policy group, supported use of this analysis in determining policies, and supported additional survey and study activities and the institutional strengthening of the group.

Contribution toward Planned Goal - Though the project has exhibited surprising progress up to this point, the ultimate outcome remains uncertain. In a project focused on institutionalizing changes within the public sector bureaucracy, it is always difficult to ascertain how firmly the changes being proposed will continue after project advisors leave the Ministry.

External Factors - From 1968-1980, the government of Peru went through a series of shocks and shifts in focus, leaving a confusing bureaucratic government apparatus, a high rate of inflation, and a tradition of subsidized prices. These, coupled with worldwide recession and natural disasters, had crippled and stifled the Peruvian economy, ruining its reputation with the financial community.

The incoming Garcia administration was inexperienced in governance; further, the early pronouncement of an arbitrary limit on debt service and an unwillingness to accept IMF intervention brought Peru into default on private and public debt, making virtually no new internal or external credits available to cover service of existing debt, offset the trade deficit, or defray government operating costs.

In addition, both the prior and current administrations faced a terrorist insurgency from the Shining Path guerrillas, for which the country remains under a nightly curfew. Further, the project was initiated shortly before the disruption caused by a national presidential campaign and Peru's first democratic transition in forty years.

The election of the Garcia administration, with its increased emphasis on centralization, was expected to hamper this market-oriented project. Indeed, the project was immediately faced with the termination of a salary support mechanism for senior positions in public agricultural agencies and universities. Though an alternative method of providing these salary subsidies has not yet been established, the project has established credibility with the new government and continued without major problems.

Unplanned Effects - None mentioned in evaluation.

Lessons Learned - First, in project design, it is probably better to separate policy analysis tasks from program and budget offices within the Ministry. Their vested interests in the results of these analyses would naturally hinder objectivity. Second, administrative and management problems of the public sector were not clearly specified and prioritized in the project paper, leaving the expected outputs to be negotiated in-course. This left an added burden on the project advisors.

Project Title: Dominica Banana Company
Project Number: 538-0083

Mission: RDOC

PACD: 1986
LOP: \$1.75 million
Host Country Contribution: None

Date of Evaluation: 1/85
Type of Evaluation: Interim

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To improve the cost effectiveness and financial viability of the banana industry, while maintaining control of leaf spot diseases in bananas; to increase private sector involvement.

Findings - First, the former Dominica Banana Grower's Association was restructured in June 1984 to provide for a commercially oriented Dominica Banana Marketing Corporation (DBMC) and a separate representational association for banana growers. The internal management of the DBMC has been streamlined, strengthened, and greatly improved in its efficiency. Second, since 1982, the financial performance of the DBMC has improved significantly. Despite these managerial and financial improvements, the DBMC remains in a precarious position. The organization will have to continue to maintain the lowest possible operating cost positions, restructure its debt payments, and increase production in order to achieve sustained financial viability.

Lessons Learned - None supplied.

Achievements/Impact/Problems - Export production has increased by fifteen percent, operating costs have decreased by fifteen percent, administrative and financial expenses have been reduced, and the DBMC is now realizing a profit on its distribution of grower inputs.

Appreciable impact of this productively and economically successful project, though potentially great, will be delayed by the long-term debt burden and declining exchange rate.

While the wholesale price for bananas in the U.K. (the major export market) increased approximately fifteen percent during the period under evaluation, the Pound Sterling/EC dollar exchange rate decreased twenty-three percent. Consequently the DBMC is exporting more, at a higher sales price, and has fewer EC dollars to show for it.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - The banana industry is the economic core of Dominica. Over the years, poor management and occasional political interference have resulted in a bloated organization, inefficient operations and subsidized grower payments. These, as well as natural disasters and fluctuating exchange rates, have made it difficult to achieve consistent short-term profitability or sustained long-term development.

By 1982, the Dominica Banana Growers' Association had an accumulated capital deficit of EC\$ 14,000,000. By the time of AID's involvement, the Dominica banana industry was insolvent, without adequate managerial resources or discipline, and was faced with a shrinking production base.

Constraints - Dominica is a high cost banana producer selling into a protected U.K. market. A long-term debt burden has resulted in a continued cash flow crisis in the Marketing Association, while the decline of the Pound Sterling continues to cut into EC\$ received.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - Project design focused on creating a more commercially oriented banana marketing entity.

Host Country Implementation - The project created and was implemented through the DBMC (the former Banana Grower's Association). A major portion of project activity focused on strengthening this body.

Components - (1) The formation of a new, more commercially oriented banana institution which could be financially self-sufficient; (2) Strengthening of the internal management of the banana grower/market organization; (3) Provision of chemical inputs, to be used in ground and aerial spray operations to maintain control of leaf spot disease; (4) Privatization of the boxing plants.

Resources - The Grant provides up to \$1.32 million for chemical spray inputs and \$438,000 for technical assistance.

Timeframe/coordination - The Grant Agreement was signed in 1982.

D) EVALUATION METHODOLOGY -

Team Composition - The contractor was Ronald D. Morgan.

Host Country Participation - None mentioned.

Time Period - Two weeks in January 1985.

Methods - Perusal of project documents; an extensive review of DBMC's operational and financial records; and interviews with key staff and representatives of the Government of Dominica, as well as with DBMC's Board of Directors.

Cost - Not supplied.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Although the original grant agreement was signed in September 1982 and amended one year later, the major condition precedent of a restructured DBMC was not met until June of 1984. The result was that for the last part of 1982, and virtually all of 1983, virtually no chemical spray inputs were provided. These policy debates, concerning the means of restructuring the Growers' Association, were compounded by differing institutional agendas and a dearth of consistent information.

Validity of Major Assumptions - The exchange rate of the EC dollar against the pound sterling is thirty-four percent below that of the Grant Agreement assumptions.

Input Delivery - Inputs included technical assistance and chemical inputs for ground and aerial spray operations. The major portion of the \$438,000 for technical assistance was for long-term advisors to assist with the divestiture of boxing plants to cooperatives and private entrepreneurs. With the focus on field packing to achieve privatization, only \$40,000 of this technical assistance was utilized, primarily for fruit processing consultants.

Output Attainment - The old Dominica Banana Growers Association was restructured in June of 1984 to provide for a commercially oriented Dominica Banana Marketing Corporation and a separate representational association for banana growers. The internal management, with the assistance of British technical advisors, has been strengthened and greatly improved in efficiency. With computerization of major accounting functions, costs are now budgeted and monitored by function and location. The major objective of privatizing the boxing plants was addressed through increased field packing.

Purpose/Indicators Progress - Export production has increased fifteen percent since 1982 in spite of substantial wind and rain damage in the second half of 1984. Operating costs decreased by fifteen percent between 1982 and June 1984, largely as a result of improved control over boxing plant and associated costs. Administrative and financial expenses have been reduced, and the DBMC is now making a profit on its distribution of grower inputs. The "bottom line," before the infusion of donor assistance, is that a loss of EC\$.046/lb. in 1982 was reduced to a EC\$.010/lb. loss by the first half of 1984. Between 1982 and 7/84, current assets have increased seven percent while current liabilities have decreased twenty-three percent. Working capital has moved from a deficit of EC\$ 1,693,000 to a surplus of EC\$ 373,000, and the accumulated capital deficit was reduced by eight percent to \$12,961,000 by mid-1984.

Impact - The debt burden has prevented the project from achieving any appreciable long-term impact as yet. Increased export production is necessary to achieve financial viability of the DBMC and to improve the standard of living of banana growers.

Contribution toward Planned Goal - Not supplied.

External Factors - DBMC's progress towards being a more cost effective organization has been affected by the declining value of the pound sterling. Though the price of bananas in the major export market, the United Kingdom, has increased since 1982, this increase has been offset by the continued erosion of the pound. The exchange rate at the time of the evaluation was twenty-three percent below what it was in 1982.

Unplanned Effects - While it had been envisioned to draw the private sector into the project through the divestiture of the DBMC boxing plants, obsolete technology and relatively high wage rates did not make the plants attractive investments to the Dominica private sector. consequently, the DBMC decided to divest the boxing plant *function itself* by spinning off the operation to growers, encouraging the use of field packing. This also decreased damage due to field losses, thereby increasing marketable output.

Lessons Learned - None supplied.

Project Title: CARDI - Farming Systems Research and Development
Project Number: 538-0099 Mission: RDOC

PACD: 9/88 Date of Evaluation: 11/86
LOP: \$7.55 million Type of Evaluation: Interim
Host Country Contribution: \$2.03 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The purpose of the project is to develop an effective and sustainable Farming Systems Research (FSR) and Development Program in the Caribbean Agricultural Research and Development Institute (CARDI) that is responsive to the agricultural needs of the Eastern Caribbean countries.

Findings - The project has made significant progress towards achieving its objectives in spite of various delays and institutional weaknesses caused by: delays in signing the technical assistance contract and fielding the TA team, as well as physical separation of the Regional TA team (located in Santa Lucia and Antigua) from CARDI headquarters in Trinidad. The FSR methodology appears to be valid for the Caribbean. The project team has performed an effective job in the establishment of project capability to conduct relevant research in a complex environment.

Lessons Learned - (1) For an adaptive agricultural research project to be successful, an effective extension service is necessary; (2) the design of the project should be flexible to allow for modifications to the research methodology in order to accommodate shifting emphases in crops, research thrusts, and target groups.

Achievements/Impact/Problems - At mid-point it appears that the most important and potentially lasting contribution of the project is the creation of indigenous applied research capacity in the Eastern Caribbean region, especially in the form of attracting and motivating a groups of younger Caribbean agricultural scientists who would otherwise have to seek employment elsewhere. The potential impact of the project will be limited by the minimal capacity of the extension services to transfer technology developed by CARDI.

B) PROJECT RATIONALE -

Factors Leading to Selection - The project grew almost directly out of the former AID-funded Small Farm Multiple Cropping Project (1978-1982), which was only partially successful in transforming CARDI from a traditional research institution to one based on carrying out adaptive on-farm research. It was determined through a number of external evaluations that CARDI did not possess the necessary management and financial control systems to make this transition.

Anticipated Constraints - The difficulties of coordination in a regional agricultural research project for the Eastern Caribbean had been seen in the Small Farm Multiple Cropping Project and other previous endeavors.

The bottom-up style of research and development envisioned in the project was a major change in an environment accustomed to a "top-down" style.

Relative Priority/Mission Objectives - The project was initiated as a major part of the Mission's strategy to foster agricultural development in the region through improvements in production technologies which could stimulate agricultural sector growth. In addition, the project would also complement other AID-funded agricultural project activities in the region.

C) PROJECT DESIGN -

Strategy - The project aims to assist CARDI to develop an effective FSR program responsive to the agricultural needs of Eastern Caribbean countries with the South East Consortium for International Development as the major contractor.

Host Country Implementation - The technical aspects of the design were the results of collaboration between Dr. Robert Hart, an AID consultant who subsequently became the FSR advisor to the project, and a small CARDI staff group who had benefited from the results of AID's previous multi-cropping project. However, both USAID and CARDI underestimated the difficulties inherent in working with an approach unfamiliar to most Caribbean agriculturalists and untried in the region. In particular, the introduction of a "bottom-up" style of research and development proved to be very slow in an environment used to a "top-down" style.

Components - (1) Technology Generation - the design, testing, and validation of technological improvements that can be readily transferred to small and medium farmers; (2) Technology Transfer - the development and institutionalization of a systematic approach for transferring economically viable farm level technological improvements to extension agents, selected private sector agencies, and farmers; (3) Institutional Strengthening - to build CARDI's technical and administrative capability to implement effectively a decentralized FSR program which will impact on agricultural production at the national level, as well as to execute its other technical programs.

Resources - \$7.55 million was allocated for the project, with \$6.75 million obligated by the time of evaluation.

Timeframe/coordination - The projected start-up date was mid-1983 (though the initial project workshop was not held until January 1984). The PACD was extended from 6/88 to 9/88 through the 1985 grant amendment.

D) EVALUATION METHODOLOGY -

Team Composition - The team consisted of Collin C. Weir, Agronomist and Team Leader; Thomas Carroll, Agricultural Economist; James B. Henson, Livestock and Research Management Specialist.

Host Country Participation - None mentioned.

Time Period/Methods - From April 1-12, 1986, the evaluation team visited the AID Mission in Barbados and three participating project countries to develop the evaluation plan through interviews and examination of project documents. From May 7-10, Dr. Weir presented this plan to the annual Project Planning Workshop in St. Kitts, distributing questionnaires to country team leaders for their completion and submission to the Team before their scheduled return to the Caribbean in June. On June 4, the team met with SECID at their head office in Washington. June 23-July 11 was spent in the field visiting each country, where the team interviewed government officials, development agencies, local agricultural agencies, and farmers participating in the project. Data was collected by utilizing existing records, along with personal interviews.

Cost - \$94,710.

Support Arrangements - The evaluation required ten mission/office professional staff person-days and fifteen borrower/grantee professional staff person-days.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Because in some respects implementation was viewed as an extension of the previous project, CARDI teams were already partly organized in the participating countries carrying out selected aspects of FSR methodology at the time of Grant Agreement signing. Actual start-up was delayed by almost one year; the 1983/84 workplan was initially developed by only a few CARDI staff. Signing of the contract for Technical Assistance between AID and SECID was also delayed by approximately nine months, meaning that SECID's FSR advisor did not arrive in St. Lucia until August 1984.

Validity of Major Assumptions - The original design was too ambitious and unrealistic with respect to time frame, government counterparts and financial commitments, and sustainability.

In the Project Paper it was assumed that country teams would be composed of a leader supported by more than one team member and several research support staff, including a counterpart staff from the local Ministry of Agriculture. In actuality, each country team was composed of the leader and usually only one more team member; government counterpart staff were part of the project in only five of the eight countries.

The sustainability of research started under the program is bound up with the future of CARDI. The project addressed only the managerial and accounting difficulties of CARDI. It did not investigate CARDI's shortage of effective leadership, lack of a clear research strategy, unwillingness of the member countries to comply with financial obligations, redundancy in the senior staff at Trinidad headquarters, and poor relations with the University of the West Indies. CARDI has shown no ability to sustain an applied Farming Systems Research effort after 1988.

Input Delivery - After one year of operations, it was found that CARDI was experiencing serious difficulties meeting its full share of project costs, due primarily to the failure of CARDI-member governments to make their regular payments to CARDI's core budget.

SECID supplied twenty-two months of a long-term FSR specialist and eleven months of a short-term Research Management specialist. In addition, they provided thirteen months of additional short-term assistance for Institutional Strengthening and Technology Generation/Transfer.

Output Attainment - CARDI and AID renegotiated the original Grant Agreement to lower CARDI's contribution from \$4.72 million to \$2.03 million. Though there was a twenty-eight percent reduction in funding between the original Technical Assistance contract and the renegotiated one, the expected goals and outputs remained the same. The design underestimated the amount of development effort needed to test and validate technologies. CARDI often had no suitable resources for machinery service, spraying equipment, and marketing.

Very little evidence of genuine FSR technology development activities were observed on the Field Stations.

Purpose/Indicators Progress - Effective administrative and financial procedures are in place to make CARDI an effective FSR headquarters. However, the project is being implemented independently in St. Lucia and Antigua where the FSR team is located, and in Trinidad where CARDI headquarters is established.

Impact - At mid-point it appears that the most important and potentially lasting contribution of the project is the creation of indigenous applied research capacity in the Eastern Caribbean region, especially in the form of attracting and motivating a groups of younger Caribbean agricultural scientists who would otherwise have to seek employment elsewhere. The potential impact of the project will be limited by the minimal capacity of the extension services to transfer technology developed by CARDI.

Contribution toward Planned Goal - In a few cases, farmers are adapting project-generated technology, but it is too early to assess contribution toward the project goal of improving the economic and social well-being of small and medium commercial farm households through increased agricultural production and employment.

External Factors - Problems noted include: (1) Inability of countries to make core payments to CARDI on a timely basis; (2) CARDI's previous negative image; (3) numerous staff changes among the project team; (4) difficulties inherent in a new technology; (5) specific government actions in the area of pricing and marketing; (6) inability of Ministries of Agriculture to supply local counterparts to the country teams. On the positive side, the evaluation notes the assistance of other donor agencies in the region in technology development and transfer.

Unplanned Effects - None mentioned.

Lessons Learned - (1) For an adaptive agricultural research project to be successful, an effective extension service is necessary; (2) the design of the project should be flexible to allow for modifications to the research methodology in order to accommodate shifting emphases in crops, research thrusts, and target groups.

Project Title: St. Vincent Agricultural Development
Project Number: 538-0101 Country: RDO/C

PACD: 11/84 Date of Evaluation: 9/86
LOP: \$2,000,000 Type of Evaluation: Interim
Host Country Contribution: None mentioned.

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The purpose of this project is to increase productivity of small farmer agriculture, to improve trading efficiency and to expand the markets for commodities produced by small farmers, and to strengthen the capability of the agricultural sector for more effective program planning, implementation and monitoring.

Findings - The project achieved some measure of success in the production and data gathering activities. However, the marketing and research components were less than successful and there was a lack of institutionalization of activities. The primary conclusion is that the project should have been implemented with balanced emphasis to lessen production/marketing constraints for crops aimed at both extraregional and regional markets. A disproportionate share of resources were channeled towards crops for the extraregional markets and in the end failed mainly because of transportation constraints.

Lessons Learned -

- (1) Care must be taken not to impose overly ambitious targets for crop research activities.
- (2) Market identification is important before venturing into the production of crops for any market.
- (3) When a significant new component is added or the conditions obtaining at the outset of a project change, designers should ensure that the originally planned activities can still be carried out or make necessary changes to allow for shortfalls.
- (4) Institutionalization requires the early identification of counterparts to work closely with expatriate advisors.

Achievements/Impact/Problems - The most notable achievement was the production input supply credit sub-component which was implemented by the Organization for Rural Development (ORD).

The project has resulted in an improved distribution system and reduced transaction costs for agricultural inputs, the use of more appropriate fertilizers, increased rural savings, and farmers' increased confidence in the Organization for Rural Development.

The implementation of the project was greatly affected by four external factors: (1) a change in the government administration, (2) the abandonment of the CARICOM Agricultural Marketing Protocol, (3) the demise of the sugar industry, and (4) RDOC's policy shift away from bilateral projects and towards regional ones.

B) PROJECT RATIONALE -

Factors Leading to Selection - The Eastern Caribbean Agricultural Sector Survey indicated a number of constraints in St. Vincent's small farm production and marketing system. For farmers, constraints included the lack of access to high quality, appropriate inputs on credit. The export trade suffered from a lack of sweet potato storage capacity and a shortage of funds for proper packaging materials needed for the transport and export of agricultural produce. The project was designed to assist the government of St. Vincent and the Grenadines to improve net incomes of small farmers and to increase foreign exchange earnings from agricultural exports.

A May 1985 assessment of the production and marketing potential of certain vegetable crops for the U.S. winter market concluded that there was potential for a private sector-operated "winter vegetable" production and marketing company. The increasing unemployment, which developed with the fall in the sugar trade and the shrinking market for winter vegetables brought about by the demise of the regional marketing protocol, led the Ministry of Agriculture to urge that the project become involved in aiding this sub-sector. Consequently, a Winter Vegetable Pilot Activity was added to the list of components several months into the implementation process.

Anticipated Constraints - None mentioned in the evaluation.

Relative Priority/Mission Objectives - This project, like all current RDO/C agricultural projects, is included in the 1988/89 Action Plan under the RDO/C objective of increasing exports. It was designed to support the Mission's overall and sectoral strategy of export-led growth in St. Vincent and the Grenadines. It does not appear to be receiving as much emphasis as regional projects such as High-Impact Agriculture Marketing and Production (538-0140).

C) PROJECT DESIGN -

Strategy - The project provided resources (technical assistance, commodities and equipment) to be marshaled by public and private sector entities to remove production and marketing constraints on four targeted crops - carrots, sweet potatoes, peanuts, and onions.

Host Country Implementation - It was implemented by the Ministry of Trade, Industry and Agriculture, and a local PVO, the Organization for Rural Development. RONCO Consulting Corporation was the prime contractor for the project, providing three long term technicians and over twenty-four person months of short-term assistance.

Components -

(1) Production - Agricultural research capacity was to be improved through technical assistance provided by the Caribbean Agricultural Research and Development Institute and the upgrading of research facilities and equipment. Improvements were to be made in supplying agricultural credit to small farmers through a \$100,000 revolving loan fund financed by the Project and managed by the Organization for Rural Development.

(2) Marketing - Activities were to include the construction of storage facilities, a fund to supply packaging materials to traders, provision of training and technical services to traders, the institution of grades and standards, and the establishment of a price information system.

(3) Data Gathering and Analysis - First, an Agricultural Census was to be executed. Second, Statistical Unit staff were to be trained and their skills upgraded. The Crop Forecasting and Special Studies sub-component was to enable the Statistical Unit to undertake small-scale special purpose surveys utilizing the sample frame developed in the Census activity and the training provided by that activity. Additionally, a modest addition to the Ministry building and a Pesticide safety component were to be included.

(4) Winter Vegetable Pilot Project - Two short-term consultants were to assist in the selection of crops which would have market acceptance both regionally and extra-regionally. Another short-term consultant was hired to design a business/operational plan for the development of a large scale winter vegetable production enterprise, which was to establish two private sector production and marketing companies to be owned by joint Vincentian and U.S. interests. These companies would establish a large "core" farm which would develop a steady supply of produce and a large-scale trading contract, which small farmers could supplement with their own crops.

Resources - \$2,000,000 was authorized for disbursement in June, 1984.

Timeframe/coordination - Project implementation began in January 1985 and was scheduled to terminate on November 30, 1986.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team included Rural Development Expert/Team Leader Donald R. Jackson, Agricultural Economist Lynn Forster, and Social Anthropologist Corrine Glesne.

Host Country Participation - There was no host country participation in the evaluation.

Time Period - Field data collection and the draft report write-up were performed during the last two weeks of August 1986, with final report preparation being completed during the month of September.

Methods - This evaluation was conducted through a review of project documents; structured interviews with project personnel, government officials, farmers, traders, and local agriculturalists; and observation visits.

Cost - The evaluation contract with Midwest Universities Consortium for International Activities was paid for with \$35,918 of PD&S funds.

Support Arrangements - Completion of the evaluation required eight person-days of office staff assistance.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - There was a delay in the ordering of trader packing materials because of disagreements between packers on the types and sizes of the materials; further, U.S. suppliers of packing materials took longer than expected in responding to requests for samples and bids. The sub-component to establish forwarding contracts between producers and traders was never attempted because the reference to "forwarding contracts" in the Project Paper was misunderstood by the Project staff to mean fixed agreements between traders and importers, which the Marketing Advisor did not consider to be customary in the business. Foremost, however, implementation was seriously hindered by the four factors mentioned below under "External Factors."

Validity of Major Assumptions - The evaluators found research targets to be overly optimistic in terms of both research results and technology transfer. Since the Caribbean Agricultural Research and Development Institute's (CARDI's) financial support to conduct the research came from other regional RDO/C projects, there was a lack of dynamism in their commitment to their tasks. The evaluation team found that only three traders were using the present "too small" storage facility, calling into question the usefulness of building another larger facility. A sweet potato storage facility was never built due to lack of support from either the Minister of Agriculture or the traders, who saw the solution to be more in the development of sweet potato varieties which either could be grown year-round or with a longer shelf life rather than expanded storage facilities.

The Winter Vegetable Pilot had several faulty assumptions. It is not clear that the government was willing to provide sufficient land; markets in Miami and Puerto Rico were insufficient; shipping to these markets was unreliable; and the expected wage rate/work day were in error. Also, the addition of this component *did* adversely affect the other components of the project. The evaluators found that, had this component been implemented successfully, it was likely to have an adverse effect on the small farmers in terms of crop prices and technology transfer.

Input Delivery - An addition to the research station was awaiting an anticipated move to another location which at the time of the evaluation still had not occurred. Purchase of new soil testing and analysis equipment was delayed until the construction of these new facilities. Fertilizer, purchased from the Dominican Republic, was of poor quality. The Organization for Rural Development was prevented from buying a better quality of fertilizer from Martinique due to a restrictive covenant against buying goods there with AID funds. The construction of the market storage facility was delayed until the proposed re-organization of the port area which never occurred. In addition, the new activity of the Winter Vegetable Component had stretched staff resources to their limit.

Delays in obtaining legal authorization from the Attorney General to conduct the Agricultural Census delayed implementation for nine months. The addition to the Ministry of Trade, Industry and Agriculture building was slowed by administrative delays on the part of the Government, USAID, and the potential contractors.

Output Attainment - On the positive side, the small farmers' credit fund provided access to fertilizer and seeds for 625 farmers and technical assistance to an additional 475 farmers. Crop standards have been drawn up and approved by a Grades and Standards Committee for most of the main crops. The Agricultural Census appears to have been successfully conducted, benefiting the short-term employment situation by hiring over 100 unemployed workers to serve as enumerators and supervisors. In the Winter Vegetable Pilot, high quality produce and acceptable yields were obtained with four of the five crops planted.

On the other hand, only limited variety trial testing (but virtually no on-farm testing) had occurred with three of the four targeted crops. Little progress had been made in upgrading of research facilities and equipment. The traders' storage facility had not been begun at the time of evaluation. No packing material had yet been received. The market price information sub-component was scrapped at an early stage because of a lack of support from either the Minister of Agriculture or the Marketing Advisor. There was no training of the Statistical Unit Staff. No crop forecasting or special studies took place. No activities were initiated in the area of pesticide, a sub-component for which the evaluators found the \$15,000 budgeted to be completely inadequate. The Winter Vegetable Pilot failed to establish a company or locate markets for the sale of a large quantity of vegetables in the U.S.

Purpose/Indicators Progress - The project has aided small farmers to increase their productivity, primarily through the activities of the Organization for Rural Development. However, it has done very little to improve efficiency in marketing, to expand the markets for commodities produced by these farmers or to strengthen the capability of the agricultural sector to perform more effective program planning and monitoring. In the Winter Vegetable Pilot, total receipts from the sale of produce were only eleven percent of total costs.

Impact - The project has resulted in an improved distribution system and reduced transaction costs for agricultural inputs, the use of more appropriate fertilizers, increased rural savings, and farmers' increased confidence in the Organization for Rural Development.

Contribution toward Planned Goal - The evaluators state that the most disheartening aspect of implementation was the lack of institutionalization of Project activities. Below the level of Minister of Agriculture and Project Manager, few Vincentians interviewed considered themselves to be part of the Project or to have had any influence over it. Additionally, in many cases, the proposed training activities had not been implemented and most likely would not before the termination of the Project.

External Factors - Four unexpected factors strongly affected the project's implementation: (1) a change in the government of St. Vincent and the Grenadines just weeks prior to the signing of the Grant Project Agreement; (2) the scrapping of the CARICOM Agricultural Marketing Protocol which guaranteed St. Vincent concessionary markets for three of the four crops identified in the original project design (peanuts, carrots and sweet potatoes); (3) the demise of the sugar industry which necessitated changes in GOSVG agricultural policy concerning employment and land use; (4) the unexpected policy shift on the part of the RDO/C away from bilateral project development and towards regional ones.

Unplanned Effects - The inclusion of the "Winter Vegetable Component" substantially impacted on other project components, causing a shift in the Project's goal and purpose by not linking it directly to the development of small farmers.

Lessons Learned - No separate "Lessons Learned" section was included in the text of the evaluation report, but these five conclusions were drawn by the Mission in the PES II: (1) Care must be taken not to impose overly ambitious targets for crop research activities, particularly where the capacity of the grantee is limited and production of the crops selected are subject to vagaries of external forces over which there is no control. (2) Market identification is important before venturing into the production of crops for any market, whether it be local, regional or international. (3) Where a significant new component is added to a project, designers should ensure that original planned activities can still be carried out or make necessary changes to allow for short falls. (4) If the conditions obtaining at the outset of the project change, the underlying assumptions and possibilities for project achievements should be reassessed and piecemeal implementation should be avoided. (5) Institutionalization requires the early identification of counterparts to work closely with expatriate advisors.

Project Title: Small Farm Production Systems
Project Number: 596-0083

Mission: ROCAP

PACD: 9/85

Date of Evaluation: 9/85

LOP: \$8 million

Type of Evaluation: Final

Host Country Contribution: \$13.1 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - The purpose of the Small Farm Production Systems Project, implemented by the Tropical Agricultural Research and Training Center (CATIE), was to develop a continuing Central American capability to conduct research on crop, animal, and mixed-farming production systems and to convey this information to small farmers.

Findings - In general terms, CATIE has had a positive influence on the national institutions with which it interacted, enabling them to run their Farming Systems Research (FSR) programs more effectively. However, CATIE itself became isolated from the actual conduct of FSR.

Lessons Learned - (1) Developing and maintaining a high-level effective collaboration among various departments in an institution like CATIE requires considerable time and effort, is influenced heavily by personalities and leadership skills, and cannot be taken for granted; (2) Farming Systems Research, in order to be most effective, requires significant degrees of collaboration among national research and extension agencies, farmers, and, in this case, CATIE. This cooperation, if achieved, should be evident in the types of training and research conducted, publications produced, and continuity of activities. Developing this is a long-term process and is negatively affected by instability in the region. This project, for many reasons, did not achieve in all cases the degree and nature of collaboration desired; (3) Farming Systems Research is a concept rather than a project; once recognized for its merits, FSR needs to be systematically included in a broader range of research and development activities. CATIE, along with national institutions, needs to assess how well the FSR methodology is being incorporated into their ongoing programs.

Achievements/Impact/Problems - The project was successful in attaining target output levels in persons trained (1,500 trained vs. 1,000 target), MS degrees obtained (19 vs. targeted 11), and development and validation/transfer of production systems. In general, also, the project has been successful in developing sensitivity toward FSR and use of FSR approaches in CATIE and country research and extension institutions.

A response study prepared by J. Jones in July, 1985 showed a major positive effect on cooperating institutions' conduct of agricultural research and demonstration. Impact on agricultural

output in the region is positive, though at this time, not precisely measured.

Problems arose from the fact that CATIE is funded on a project basis, so that personnel are likely to be shifted to other projects, leaving little institutional memory, and no institutional representation for FSR, other than the current project team. On the other hand, many personnel have been trained and are now experienced in FSR approaches, and may continue to practice the FSR approach as far as new projects allow.

B) PROJECT RATIONALE -

Factors Leading to Selection - CATIE was founded in 1973 in Turrialba, Costa Rica. One of its first projects was a cropping systems research project funded by ROCAP which produced the initial steps of a farming systems research methodology; this led to the development of the Small Farm Production Systems project in 1980, which was to refine and finalize the methodology developed under the earlier project, training national personnel to apply it to production technology.

Anticipated Constraints - The academic, discipline-oriented approach of FSR has made its execution difficult everywhere; at project inception, a farming systems methodology had not been clearly defined. Prior to the cropping systems project, CATIE had little experience in FSR. Further, organizational and administrative capabilities of the national institutions involved varied greatly among the six participant countries.

Relative Priority/Mission Objectives - None mentioned in report, though the 1988/89 ROCAP Action Plan continues to emphasize the importance of increased agricultural production as a major objective for the planning period. Specifically mentioned are the lack of efficient technology transfer mechanisms, the weakness of communication and collaboration among national research and extension programs, and a weak professional cadre for the generation, adaptation, dissemination, and adoption of production-oriented technologies.

C) PROJECT DESIGN -

Strategy - The Project was to develop farming systems research capability within the national member institutions by refining FSR methodology under CATIE to a series of recommendations for crop, livestock, and mixed production systems, along with the training of personnel of the various national institutions in the methodology.

Host Country Implementation - FSR required the conduct of on-farm research at a variety of research sites. CATIE, a fairly small organization which had been highly centralized, could not conduct such research without the support of various national institutions in the project countries.

Components - (1) Farming Systems Research - examining crop, animal, and mixed systems; (2) Training - short term workshops, seminars, and courses for technicians from national institutions as well as a limited amount of Master's-level training at CATIE; (3) Extension - development of the mechanisms for transferring the systems methodologies (technical packets) to the small farmer via host country agencies; (4) Extrapolation - development of a methodology for the introduction of a cropping system into an analogous area without the need for prolonged site-specific research.

Resources - Life of project funding began at \$7.4 million and was increased to \$8.0 million with a June 1983 amendment.

Timeframe/coordination - The project was originally funded from 1980 through 9/83. This was later extended to 9/85, with additional funding provided.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation team, representing the University of Florida Farming Systems Support Project, included Agricultural Economist and Team Leader David Zimet, Animal Scientist Joseph Conrad, Agronomist Edwin C. French III, and Agronomist Federico Poey.

Host Country Participation - None mentioned.

Time Period - The evaluation was conducted for five weeks from July through September, 1985.

Methods - Methodology included the review of project documents, examination of written materials produced by the project, and interviews with ROCAP, CATIE, and national institution personnel.

Cost - \$46,431.

Support Arrangements - The evaluation required 6 person days of Mission professional staff and 6 person days of support staff.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - Because the first FSR project focused on cropping systems, the Crops Production Department was more advanced than the Livestock Production Department as regards FSR methodology development and understanding. After much internal discussion to determine the role of the Livestock Department, administrative change prevented their full participation and coordination with the Crops Department with respect to this project.

Validity of Major Assumptions - The development of FSR research capability at CATIE is seriously hindered by the high turnover of personnel, most of whom depart after their project-specific funding has ended.

Input Delivery - The project successfully provided training courses, technical packets for farmers, and field support from CATIE for the various national institutions. In general, the institutions did not receive as much funding support as was expected from their respective governments. Further, CATIE's Livestock Department participated only minimally in project activities.

Output Attainment - Despite the exclusion of data from Nicaragua from the output (but not from the goals), the project was very successful in achieving targeted output:

<u>Activity</u>	<u>Goal</u>	<u>Unit</u>	<u>Output</u>
Training			
Participant Training	1000	person-sessions	1500
M.S.	11	degrees	19
Development of production systems			
Crop	13	systems	11
Animal	7	systems	7
Mixed	6	systems	4
Validation/transfer of production systems			
Crop	10	systems	7
Animal	7	systems	6
Mixed	4	systems	4

Purpose/Indicators Progress - The evaluators stated that they believed the project to be cost effective due to the training, the technical support given at the design of alternative technologies stage, and the ability of CATIE to attract high quality personnel for field positions.

Impact - According to the PES II, the contractor was not requested to provide separate sections on development impact. A separate document entitled *Farming Systems Research and Extension at CATIE: 1975-1985*, prepared by James Jones in July 1985, examined how this project was influencing research/extension in the region.

Contribution toward Planned Goal - The project has exhibited potential, though no results as yet, for achieving the project goal of "improving the regional conditions in which the rural poor will have increased outputs and income from the land they work."

External Factors - Several of the participant countries experienced severe political and social unrest during the project. Prime among these was Nicaragua, which did not continue to participate in project activities.

Unplanned Effects - None mentioned.

Lessons Learned - (1) Developing and maintaining a high-level effective collaboration among various departments in an institution like CATIE requires considerable time and effort, is influenced heavily by personalities and leadership skills, and cannot be taken for granted; (2) Farming Systems Research, in order to be most effective, requires significant degrees of collaboration among national research and extension agencies, farmers, and (in this case) CATIE. This collaboration, if achieved, should be evident in the types of training and research conducted, publications produced and continuity of activities. Developing this collaboration is a long-term process and is negatively affected by instability in the region. This project, for many reasons, did not achieve in all cases the degree and nature of collaboration desired; (3) Farming systems research is a concept rather than a project, which, once recognized for its merits, needs to be more systematically included in a broader range of research/development activities. CATIE, along with national institutions, needs to assess how well the FSR methodology is being incorporated into their ongoing programs.

Project Title: Agricultural Secretariat
Project Number: 596-0094

Mission: ROCAP

PACD: 12/85

Date of Evaluation: 12/85

LOP: \$850,000

Type of Evaluation: Final

Host Country Contribution: \$1.96 million

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - To assist the Agricultural Secretariat to become a permanent and effective body capable of identifying, analyzing, and recommending solutions to agricultural problems and constraints common to some or all of the Central American countries, Panama, and the Dominican Republic.

Findings - (1) As a regional forum for the Ministers of Agriculture, the project has been a success. (2) No policy decisions affecting the countries or region have originated in the Regional Council for Agricultural Cooperation (RCAC). (3) The response of the Technical Secretariat (TS) to the requirements of the RCAC for policy analysis and advisory services has been inadequate. There are serious administrative obstacles to improved performance by the TS, foremost among which is its inappropriate placement at a low level within IICA's administrative hierarchy. (4) The assistance provided to the Inter-American Institute for Agricultural Cooperation (IICA) by the AID-funded Agricultural Policy Analysis Project (APAP) in preparing several recent policy-oriented studies has been very useful. (5) Only two of the seven signatory countries have met their financial quotas. Support by ROCAP beyond LOP was to have been contingent upon full compliance with the quota payment provisions of the Project Agreement.

Lessons Learned - (1) To avoid serious ambiguities and misunderstandings as to project direction and management, there should be only one agreement in which all involved parties are signatories; these parties should fully and clearly understand and agree upon the purpose of the project. (2) It is very important to update the Logical Framework document during the project to reflect evolving or changing objectives and activities. (3) The creation of a regional consultative mechanism like RCAC takes longer than three years to reach its full potential.

Achievements/Impact/Problems - As indicated in the "Findings" section, the achievements of the Agricultural Secretariat are modest: The ministers find it useful, Technical Exchange activities received favorable evaluations from everyone. The regional information system is functioning with Spanish aid. Recently-produced studies are of excellent quality, and may contribute to policy dialogue.

Intended impact of the Project was primarily in the area of policy formulation for RCAC, the regional ministerial level agricultural cooperation council, and secondarily in facilitating and contributing to technical support to individual countries, espe-

cially in project development. In the event little impact in the policy area was made, technical support was of good quality and adequate quantity.

Many problems arose: the Project Paper was inconsistent in emphasis between EOPS and indicators in weighting policy-related and other outputs; the project operated under two inconsistent basic agreements (with individual countries, and with IICA); AID-supported units were given inappropriate organizational placement; and finally, probably, insufficient time was available to make significant changes in the operation of existing organizations.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - For some years, the Ministers of Agriculture within the region had recognized the need for a regional mechanism to address common agricultural sector constraints. At a meeting of the Ministers' Inter-Regional Committee on Animal Health (CIRSA) held in Mexico in November 1979, they expressed strong support for creating their own regional analysis and coordinating body. At a subsequent CIRSA meeting held in November 1980, the Ministers of Agriculture from the five Central American countries, Panama, and the Dominican Republic signed a resolution to create the Agricultural Secretariat which was to be located within the Inter-American Institute for Agricultural Cooperation (IICA) in San Jose, Costa Rica. AID funding began approximately one year later.

Constraints - Institutional constraints are the lack of: (1) an effective regional analytical group to develop practical policy alternatives for regional export opportunities; (2) uniform grading, inspection, and certification standards; (3) an arbitration mechanism to resolve disputes; (4) reliable market forecasting and reporting systems; (5) adequate agricultural sanitation controls with trained personnel; (6) effective production and promotion agencies.

Among the physical constraints are: (1) backward technology on small farms; (2) poor transportation and communications; (3) low productivity; (4) inadequate research and extension services; (5) lack of access to production credit.

Relative Priority/Mission Objectives - Not supplied.

C) PROJECT DESIGN -

Strategy - Five principal responsibilities were assigned to the Agricultural Secretariat: (1) To define major agricultural development problems and opportunities facing the region over the next 5-20 years; (2) to identify and analyze short- and long-term policy planning, program, and investment options; (3) to address intraregional trade-related issues and to identify practical, politically acceptable mechanisms for promoting increased agricultural trade; (4) to establish a mechanism for facilitating the

exchange of technical expertise and information within a regionally coordinated framework; (5) to stimulate rural employment and increased small farm income through the coordination of efforts of national and regional institutions.

Host Country Implementation - As implementing agency the project established RCAC, which was to be supported by a Technical Coordinating Committee (TCC) and its Technical Secretariat. RCAC was to be made up of the Ministers of Agriculture of each participating country, who were to meet at least once a year to discuss, review, and make decisions on matters brought before them by the TCC. The TCC, made up of the Directors of the Agricultural Sector Planning Offices of each country or their designated representatives, was to be responsible for coordinating the Ministers' activities and for implementing their decisions at the country level through the National Agricultural Planning Units. Under the TCC was to be established as part of IICA a permanent body, the Technical Secretariat, consisting of two entities: a Research and Analysis Unit responsible for carrying out the technical work needed to formulate recommendations for decision-making by RCAC; and a Regional Technical Cooperation Unit charged with promoting and coordinating exchanges of information and technical services.

Components - Project-funded activities were to focus on the Technical Secretariat and its two staff units: (1) The Research and Analysis Unit undertakes or arranges for studies to provide the basis for policy recommendations to RCAC and responds to requests for technical data available in the regional information systems at IICA. The project provided funding to establish a Special Fund for financing the studies and for the management, analysis, and distribution of data including those data utilized in policy studies. (2) The Regional Technical Cooperation Unit (RTCUC) serves essentially as a clearing house by receiving requests from member countries for technical assistance and matching them with technical expertise available within the region. The project provided funding to help cover the experts' travel and per diem costs during the initial years of operation of this mechanism, as well as a limited amount of outside technical expertise not available from public sector institutions.

Resources - The PES indicates that AID provided \$850,000, with total project funds of \$2.81 million. Each of the seven member countries was required to contribute \$50,000 in cash (\$420,000), and the remaining \$556,000 in the amended project budget in kind. The IICA's contribution was \$983,000.

Timeframe/coordination - On September 30, 1981, the Project Grant Agreement was signed between IICA and ROCAP for AID to provide funding for Phase I, which was to operate through September 30, 1983. At the conclusion of this, a progress evaluation was conducted and the decision was made to implement Phase II. Because project implementation was delayed, the project termination date was extended from March 31, 1985 to September 30, 1985, and again to December 31, 1985, both times at IICA's

request. The IICA agreement was subsequently extended to 1987, regardless of AID decisions on further funding.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was conducted by "a two-man team of agricultural policy specialists." No further information was given.

Host Country Participation - None mentioned.

Time Period - November, 1985.

Methods - The team reviewed all pertinent documents made available by ROCAP and the Agricultural Secretariat. Brief visits were made to six participating countries in order to interview government officials, the Directors of IICA's country offices, the Director of CATIE, and the Director of the Department of Agriculture of SIECA. Interviews were also carried out at IICA headquarters in San Jose, Costa Rica, with Agricultural Secretariat personnel and with IICA Directors and staff.

Cost - The evaluation contract was with Checchi & Co. for \$32,772.03.

Support Arrangements - None.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - There were inconsistencies with respect to the lines of communication and authority which the TS used to carry out its responsibilities within IICA. Second, the RTCU had not been located in San Jose in accordance with earlier agreements.

Validity of Major Assumptions - The placement of the Agricultural Secretariat at a low administrative level in the IICA hierarchy greatly hindered the functioning of the TS. The lack of an approved relationship for the coordination of the Agricultural Secretariat with the national offices of IICA was responsible for conflicts and unsatisfactory working relationships between the TS and the technical and country offices of IICA.

Input Delivery - From the beginning, there were problems relating to the payment of the country quotas to the Agricultural Secretariat. Only Panama and Honduras met their full obligations of \$60,000. Guatemala and Nicaragua paid half of that, Costa Rica twenty percent, and El Salvador and the Dominican Republic none.

Output Attainment -

<u>OUTPUT</u>	<u>Satisfactory</u>	<u>Partial Fulfillment</u>
A. Agricultural Secretariat		
1. Established and operational	x	
2. Research and analysis unit functioning w/ qualified staff	x	
3. RCAC making policy decisions based on staff recommendations		x
B. Regional info system functioning at IICA	x	
C. Technical expertise exchange (RTCUC) functioning	x	
D. Special Fund Established		
1. Five studies carried out or contracted	x	
2. 9-10 projects designed & presented for funding		x

Purpose/Indicators Progress -

<u>INDICATOR</u>	<u>Satisfac- tory</u>	<u>Partial Fulfillment</u>	<u>Unsatis- factory</u>
A. Regulations governing AS approved by participating countries	x		
B. Policy-related activities by country			
1. Adopt policy recommendations			x
2. Action to support recommendations			x
3. Reforms made as necessary			x
4. Projects financed			x
5. Personnel provided			x
C. Technical Secretariat coordinating activities w/ regional institutions			x
D. Members make required financial contributions to AS.		x	
E. Use of RTCUC by:			
1. Public Sector	x		
2. Private Sector			x

(Source: Table 1, Agricultural Secretariat Evaluation Report, 12/85.)

Impact - Though not specifically addressed, it seems that the impact of the project on the region at the point of evaluation has not been impressive.

Contribution toward Planned Goal - The goal of the project is to promote regional efforts to increase agricultural production, intraregional trade and exports and to stimulate rural development, particularly rural employment and improved living standards. Though it has served as an effective forum for the Ministers of Agriculture of the region, it has yet to develop into an effective policy making and analysis unit.

External Factors - None mentioned.

Unplanned Effects - None mentioned.

Lessons Learned - (1) To avoid serious ambiguities and misunderstandings as to project direction and management, there should be only one agreement in which all involved parties are signatories; these parties should fully and clearly understand and agree upon the purpose of the project. (2) It is very important to update the Logical Framework document during the project to reflect evolving or changing objectives and activities. (3) The creation of a regional consultative mechanism like RCAC takes longer than three years to reach its full potential.

Project Title: Regional Integrated Pest Management
Project Number: 596-0110 Mission: ROCAP

PACD: 7/89 Date of Evaluation: 11/86
LOP: \$6,750,000 Type of Evaluation: Interim
Host Country Contribution: \$750,000

A) SUMMARY OF EVALUATION -

Project Purpose/Rationale - Because agriculture holds such an important place in the economy of the Central America/Panama (CA/P) region, losses caused by plant pests assume a major role in reducing the standard of living for a majority of the population, particularly the small farmer. The purpose of the Regional Integrated Pest Management Project (IPM) is to strengthen national and regional capabilities for the development and implementation of effective pest management in the region; it provides an organized scientific method that almost certainly minimizes crop losses with the least cost to the farmer and with less disruption to the environment.

Findings - The project has become a high priority item for ROCAP, national institution officials, and the Tropical Agricultural Research and Training Center (CATIE), the implementing institution; they have assembled a productive, efficient IPM team. However, integrated pest management is so complex and pest-problem solutions so lacking that five years will not be sufficient to consolidate project achievements.

Lessons Learned - (From PES II) - (1) the need for long-term funding commitments for research/development programs; (2) the importance of having a highly qualified, deeply committed team of specialists working full time and long-term; (3) the importance of effective technical and administrative backstopping by both funding and implementing institutions; (4) the need to carefully develop and implement monitoring and evaluation systems to measure the impact of project interventions; (5) the importance of including professional staff at various levels for planning and implementation decisions, and the need for performance incentives.

Achievements/Impact/Problems - The initial research, training, and technical cooperation activities have generally begun quite successfully. This assessment is based on several factors: first the acceptance and demand for the project in the region is extremely great; second, national institutions' personnel are improving skills in crop protection through training and collaboration with CATIE personnel under the project; and third the preliminary results of research show tremendous potential for increasing agricultural productivity through use of better pest management practices. Though it is difficult to quantify the project's impact at this early stage, for the reasons just cited, both the evaluators and the Mission see significant potential impact. However, as mentioned above, a project of this complexity

will require continued diligence and organizational guidance to bring these opportunities to fruition.

B) PROJECT RATIONALE -

Factors Leading to Project Selection - Losses to crops and harvested products in CA/P have been estimated at 25-40 percent of total potential production. Estimates of the economically quantifiable impacts of these pests and their control have been placed at 650-800 million dollars annually. This project originated in 1984 when ROCAP fielded a multidisciplinary team of specialists to analyze requirements of the proposed project and to assist the Mission in its design. The team consulted representatives of USAID, the ROCAP Mission, CATIE, national ministries of agriculture, national universities, agricultural schools, Peace Corps, other regional and international institutions and the private sector in Costa Rica, El Salvador, Guatemala, Honduras, and Panama. The information made available to the team formed the basis for the design of the project.

Anticipated Constraints - The complex nature of an integrated pest management project and the broad regional scope of this particular project presented great challenges for the interrelations of project personnel and national and regional institutions.

Relative Priority/Mission Objectives - The 1988/89 ROCAP Action Plan depicted IPM as a recognized regional priority demonstrating a significant impact on rural, small-farm families.

C) PROJECT DESIGN -

Strategy - The project created a central scientific staff at CATIE to coordinate efforts between the five countries participating in the project: Costa Rica, El Salvador, Guatemala, Honduras, and Panama. Each of these countries had a coordinator with a group of assistants to link up the central team with the various national institutions working on pest management.

Host Country Implementation - The project was designed to be implemented almost entirely by local personnel with minimal expatriate technical assistance. All courses taught were to be developed by the country coordinators to meet local needs. In addition, the building of institutions to continue Integrated Pest Management after PACD was a major component.

Components - The project included three major components: (1) Research - identification and quantification of pest problems and crop losses, small scale on-farm evaluations, and an economic evaluation of the entire project. (2) Training - long-term academic training, short-term seminars, and in-service training to give project personnel specialty training, to enhance public awareness and technical training of nonproject personnel, and to

generate training materials. (3) Technical Cooperation - establishment of a pest diagnostic network, development of a regional information service center, and general technical assistance.

Resources - Estimated total project funding is \$7.5 million, with \$6.75 million being provided by AID.

Timeframe/coordination - The project began in July 1984 and was scheduled for completion in July 1989.

D) EVALUATION METHODOLOGY -

Team Composition - The evaluation was completed for Checchi & Co. by Dr. Theo Watson, team leader from the University of Arizona; Dr. Eddie Echandi, plant pathologist from North Carolina State University; Dr. Frank Peairs, entomologist from Colorado State University; and Dr. Luis Zavaleta, agricultural economist from the University of Illinois.

Host Country Participation - There was no explicit role for host country personnel in the evaluation statement of work, though the evaluation team made extensive use of interviews with personnel from the CATIE central project team, the IPM project office and technical staff, country coordinators, and institutional representatives.

Time Period - Field work in Central America was carried out over a four-week period during September and October, 1986, and a draft report was presented to ROCAP and CATIE prior to the team's departure. The final evaluation, completed in December 1986, reflects comments received from ROCAP and CATIE on that draft.

Methods - The evaluators utilized three methods: (1) interviews with ROCAP and CATIE personnel, project office and technical staff, country coordinators, and institutional representatives; (2) examination of numerous project documents, evaluations of related projects, individual research activities for the various countries, and training materials and other technical bulletins prepared by project personnel; (3) on-site examination of research activities in all countries except El Salvador.

Cost - The evaluation cost \$42,000 of PD&S funds.

Support Arrangements - None mentioned.

E) MAJOR FINDINGS AND CONCLUSIONS -

Initial Implementation - The central project team and country coordinators were rapidly assembled, allowing the project to begin substantive work according to schedule.

Validity of Major Assumptions - All country coordinators did an excellent job in moving the research component forward,

considering the constraints under which they operate. However, research was spread over too many problems.

Input Delivery - Procurement of goods and services, along with problems of financial management, has delayed the development of all aspects of the project. Delays in the appointment of the documentalist and in procurement of essential equipment hampered the development of the information database, newsletter, and the photocopy/loan service.

Output Attainment - There has been an initial pest inventory in every country, but no standardized system has yet been developed nor implemented to assess levels of losses associated with them. Most research is directed at single pests, but the activities lack a long-term, integrated regional focus.

Purpose/Indicators Progress - The following table outlines the indicators of progress at the time of evaluation:

MAJOR OUTPUTS	INDICATORS	# OF ACTIVITIES	
		LOP	TO DATE
A. RESEARCH			
1. Initial country pest diagnosis	a. Initial country pest diagnosis	5	4
2. Experiments	a. Studies initiated	N/A	41
	b. Studies completed	N/A	7
B. TRAINING			
1. Academic training	a. MS Program Estab. at CATIE	1	1
	b. MS students	15	3
	c. Academic courses	15	2
2. Technical training	a. Workshops	29	13
	b. Seminars	13	8
	c. Diagnostic assist. to national inst.	N/A	268
	d. Tech assistance missions	N/A	123
3. In-service training	a. Persons	11	6
C. TECHNICAL COOPERATION			
1. Diagnostic services	a. New species collected	N/A	360
	b. Principal pest slides prepared	N/A	271
2. Regional IPM Info Service Center		1	1
3. Technical assistance missions	a. Consultancies (1-4 weeks)	25	3
	b. Periodic short-term assistance to national institutions	N/A	20

(Source of table: Appendix D, Project Evaluation Document, 12/86.)

Impact - Through on-site visits to research plots located on small farms and through comparisons of common grower practices with various other pest management treatments, the researchers have already noticed yield differences through project assistance; consequently, the impact of the project on the living standards of rural, small-farm families is easily visualized.

Contribution toward Planned Goal - The evaluation stated that this project will have a significant impact on all levels of the agricultural sector of CA/P. First, project acceptance by officials in the national institutions and universities was of the highest priority. In addition, the involvement of national institution technicians with CATIE project personnel will provide a cadre of better-trained scientists. Results from research in the early phase of this project are already showing tremendous potential for increasing productivity through better pest management practices.

External Factors - Lack of involvement and responsibility for certain aspects of planning and execution of research, training, and technical cooperation activities, as well as low salaries of national professional project staff in Costa Rica, seriously affected morale, efficiency, and productivity.

Unplanned Effects - Increasing project visibility has led to increasing time demands on the members of the central team. Careful management will be necessary to prioritize the responsibilities of individual members to assure that they can perform their duties adequately.

The prevalence of pesticide use in project research activities led the evaluation team to conclude that many pesticide-related problems exist; they recommend that a pesticide management component be added to IPM.

Lessons Learned - (From PES II) - (1) the need for long-term funding commitments for research/development programs, particularly when dealing with complex problem areas; (2) the importance of having a highly qualified, deeply committed team of specialists working full time and over the long-term; (3) the importance of effective technical and administrative backstopping on the part of both funding and implementing institutions; (4) the need to carefully develop and implement monitoring and evaluation systems to measure the impact of project interventions; (5) the importance of including professional staff at various levels for planning and implementation decisions, and the need for performance incentives.

ANNEX A

ANNEX A

AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D C 20523

November 13, 1987

Ms. Mary A. Tondreau
President
TvT Associates
503 Capitol Court, N.E.
Suite 300
Washington, D.C. 20002

Dear Mary:

This letter is to request that your firm under the provisions of contract no. LAC 0000-C-00-6072-00 assist LAC/DP/SD in compiling a volume of syntheses of agricultural development project evaluations. This will include evaluations in the areas of agricultural diversification and export, natural resource management, agricultural credit, research and training, etc. for the period 1986-87. We believe these syntheses would be particularly useful to our field Missions in designing and monitoring development projects.

The syntheses should include the following:

- a) A summary paragraph including (as appropriate) the statement of the project purpose and whether or not the project achieved this purpose, what was its impact, what were major lessons learned, and why the project was a success or was not a success.
- b) Rationale for the project, drawing on pertinent sections of the evaluation report. This section of no more than one page should analyze and describe: 1) The financial, economic, social and institutional factors which led to the selection of the project as a development intervention; 2) the financial, institutional, managerial and technical constraints which the project was expected to overcome; and, 3) the relative priority of the project in the country development plan and its importance to the Mission's strategy objectives.

- b) The Project Design - This section of no more than three paragraphs should describe: 1) the project strategy; 2) nature of the host country implementation agency and the organizational/institutional environment in which the project was expected to operate; 3) the components of the project; 4) the A.I.D., host country and other donor resources which were made available for implementation of the project; 5) the project's timeframe and coordination arrangements.
- c) Evaluation Methodology -This section of no more than one paragraph should include a description of: 1) the composition of evaluation team; 2) the level and degree of host country participation in the evaluation; 3) the period covered by the evaluation; 4) the methods used during the evaluation to gather information on the project (site visits, survey of the target group, meetings, comparison of actual vs planned results); 5) cost of evaluation; and 6) support arrangements.
- d) Major findings and conclusions - This section of no more than two pages is designed to highlight the factors which were crucial to the success or failure of the project. It should include a discussion of the following: 1) problems/successes in the initial implementation (start-up problems, delays, etc.); 2) continued validity of major assumptions; 3) problems/shortfalls in the delivery of project inputs in the timeframe and quantity originally scheduled; 4) the extent to which major project outputs were attained or not; 5) progress to date toward achievement of the project purpose and the end of project indicators; 6) impact of the project to date on intended beneficiaries, other activities in the sector and the Mission's strategy; 7) contribution of the project toward the planned goal; 8) external factors which favorably or unfavorably influenced the project outcome; 9) unplanned effects; and 10) lessons learned for future implementation and design.

It may not be possible to comment on all of these factors for all evaluations but all factors should be covered to the extent possible. We foresee the type of analysis outlined above as being able to provide a distillation of worthwhile experiences from various LAC Missions which can assist others in both future design and better management of existing portfolios.

Although we are not working from a fixed timetable, there is some interest in completing this task by February 1988. With this date in mind, we would like to have you prepare at least one pototype synthesis for LAC/DP/SD's review to resolve any issues prior to taking on the bulk of the assignment. Please give me a call at your convenience so that we can set up a meeting to get you started on this task.

Sincerely,

Gussie L. Daniels III

Gussie L. Daniels, III
Program Officer/Evaluation
Social Development Division
Office of Development Programs