# A.I.D. EVALUATION SUMMARY - PART I

PD-ABA-234

64190

1. BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS.
2. USE LETTER QUALITY TYPE, NOT "DOT MATRIX" TYPE

## IDENTIFICATION DATA

A. Reporting A.I.D. Unit:
Mission or AID/W Office: USAID/Honduras
(ES# FY89-4)

B. Was Evaluation Scheduled in Current FY Annual Evaluation Plan?
Yes ☐ Slipped ☒ Ad Hoc ☐
Evaluation Plan Submission Date: FY 88 Q 4

C. Evaluation Timing
Interim ☐ Final ☒
Ex Post ☐ Other ☐

D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)

| Project No. | Project /Program Title | First PROAG or Equivalent (FY) | Most Recent PACD (Mo/Yr) | Planned LOP Cost (000) | Amount Obligated to Date (000) |
|---|---|---|---|---|---|
| 522-0157 | Rural Technologies Project | 9/26/79 | 12/31/88 | 9,000 | 9,000 |

## ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director

| Action(s) Required | Name of Officer Responsible for Action | Date Action to be Completed |
|---|---|---|
| Pass recommendations to GOH: | Office of Development Finance (DF) Controller (CONT) and Rural Development (RD) | Completed 3/89 |
| - That PTR/GOH creatively consider ways to continue PTR and buffer it against political intervention. | GOH Ministry of Economy. | |
| - Update the computer system at PTR headquarters as soon as possible. | | |
| - Streamline the existing credit administration process. | | |
| - Seek computer literacy for all department heads at the central office and for field personnel. | | |
| - Systematically strengthen its reporting and information dissemination systems. | | |

(Attach extra sheet if necessary)

## APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation: (Month) (Day) (Year)

G. Approvals of Evaluation Summary And Action Decisions:

| | Project/Program Officer | Representative of Borrower/Grantee | Evaluation Officer | Mission or AID/W Office Director |
|---|---|---|---|---|
| Name (Typed) | Robert J. Wilson | | José A. Rivera<br>Carmen Zambrana | John A. Sanbrailo |
| Signature | | | José A. Rivera<br>C Zambrana | John Sanbrailo |
| Date | 12/8/89 | | 12/12/89 | |

## ABSTRACT

H. Evaluation Abstract (Do not exceed the space provided)

The Rural Technologies Project (PTR) began in late 1979 with the purpose of increasing the use of light, appropriate technologies in farms and rural enterprises of Honduras. It was designed as a cooperative effort between the Industrial Development Center of the Ministry of Economy and the Development and Adaptation Unit (UDA) of the Ministry of Natural Resources. Several other institutions were also structured into the project at the time for training, documentation and dissemination of information on technologies. In late 1984, the project adopted the Farming Systems Research and Extension (FSR/E) approach to its activities in the field. The number of technologies disseminated declined immediately following the introduction of FSR/E, but later it rose substantially. The new approach ultimately enabled the project to focus its efforts on real recipient needs, thereby facilitating dissemination. Much of the project's success from 1986 forward is attributable to FSR/E efforts.

The evaluation had four objectives: to summarize implementation over the life of the project; to evaluate project impacts from social, economic, technical and institutional perspectives; to assess project implementation strategies; and to provide recommendations for future projects of this kind. Four persons conducted the evaluation, each in charge of the following four areas: economics and credit; institutions; technologies; and private voluntary organizations. The evaluation was done through a review of documents, interviews with project implementors and beneficiaries, and field trips. The evaluation showed that PTR has been reaching its intended target groups. Across the life of the project 23,932 families and 447 enterprises have directly benefited from PTR. The most successfully disseminated technologies have been: veterinary techniques; domestic stoves; soil and water conservation techniques; silos; corn shellers; and innovations in cropping systems and cultivars. Despite its brief experience in credit management, the project has recovered more than 90 percent of its scheduled payments. However, the credit component is not yet self-sustaining. On the economic side, the average gain from PTR technologies was about L202 ($101) between 1980 and 1985, and L230 ($115) in the latter stages of the project. Between 1980 and 1989, the benefit cost ratio with no diffusion has been estimated at 1.4. In economic terms the project has been successful. Government of Honduras (GOH) institutions have not been changed in any dramatic or sustainable way with respect to successful managememt of technology projects. The participation of private voluntary organizations has been fruitful, and enabled the project to extend its coverage.

## COSTS

I. Evaluation Costs

| 1. Evaluation Team Name | | Affiliation | Contract Number OR TDY Person Days | Contract Cost OR TDY Cost (U.S. $) | Source of Funds |
|---|---|---|---|---|---|
| Dr. James Jones | Team Leader | Dev. Alternatives | PDC-5315-I-00 8101-00; 85 person days | $57,850 | Project 522-0157 |
| Dr. Gustavo Arcia | Economist | Research Triangle Institute | | | |
| Dr. Constance McCorkle Anthropology | | Institute for Development Anthropology | | | |
| Dr. William Waters Sociologist | | | | | |

2. Mission/Office Professional Staff Person-Days (Estimate) 15

3. Borrower/Grantee Professional Staff Person-Days (Estimate) 30

# A.I.D. EVALUATION SUMMARY - PART II

SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)
Address the following items:

- Purpose of evaluation and methodology used
- Purpose of activity(ies) evaluated
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

| Mission or Office: | Date This Summary Prepared: | Title And Date Of Full Evaluation Report: |
|---|---|---|
| USAID/Honduras Rural Development Off. | 8/89 | Final Evaluation of the Honduras Rural Technologies Project - December 1988 |

## Purpose of Evaluation and Methodology Used

The evaluation had four objectives: to summarize implementation over the life of the project; to evaluate project impacts from social, economic, technical, and institutional perspectives; to assess project implementation strategies; and to provide recommendations for future projects of this kind.

From the standpoint of the Government of Honduras (GOH), the evaluation will influence its decisions regarding project continuation -- whether the project will be continued, and if so, what form that continuation might take. Aside from satisfying USAID end-of-project requirements, the evaluation serves both USAID and GOH by summarizing and assessing the experiences of nearly a decade of efforts to provide economically and socially deprived sectors -- households, small farms, and small enterprises -- of rural Honduras with improved technologies designed to raise the standard of living.

Four persons conducted the evaluation, each in charge of one of four functional areas: economics and credit; institutions; technology-beneficiary interface; and private voluntary organizations. The credit component was evaluated by examining loan data, interviews with staff and beneficiaries. Information on technologies was gathered through individual and group interviews. Interviews and record reviews were conducted for evaluating the PVO and institutional components.

## Purpose of the Project

According to the 1979 Project Paper (PP), the project was to improve the well-being of the rural poor. It would: (1) Increase the incomes of small farmers through the introduction of light capital farm implements to enhance land and labor usage; (2) Increase the incomes of rural entrepreneurs through the introduction of improved production and management practices and the establishment of new enterprises; and (3) Improve the quality of life of rural households through the introduction of low-cost appropriate technologies.

## Findings and Conclusions

Across the life of the project 23,932 families and 447 enterprises have directly benefited from PTR activities. It is significant that the preponderance of both family (76 percent) and enterprise (92 percent) beneficiaries are found in the 1986-88 period, after the project was dynamized by adoption of a Farming Systems Research and Extension (FSR/E) approach coupled with the institution of credit mechanisms.

PTR did not achieve the total number of family (50,000) and enterprise (1,500) beneficiaries targeted in the original PP. However, a 1984 PP Supplement sets revised goals of reaching 12,000 families during the remainder of the project (January 1984 - September 1988) and establishing or assisting 110 small rural industries by end-of-project. PTR far outstripped these revised goals. With regard to jobs, 822 full-time and 9,137 part-time jobs were generated by PTR assistance to small rural enterprises and service industries.

The most successful technologies, have been (number of disseminations in parentheses): (1) Veterinary services (8,694); (2) Domestic stoves (4,888); (3) A variety of soil and water conservation techniques (3,536) and, closely related, new earth-working agricultural implements (plows, tool bars, harrows -- 888); (4) Metal silos (3,281); (5) Corn shellers (3,048) and (6) Innovations in cropping systems and cultivars (2,698).

The evidence is that PTR has been reaching its intended target groups. Twenty percent of the L7,146,601 in credit disbursed went to women recipients. Evaluation interviews, however, suggest the percentage of direct female beneficiaries for the project as a whole to be much higher. When the project began, it emphasized household technologies which favor women.

On the economic side, between 1980 and 1985 the average gain from PTR technologies was about L202 per year. Between 1986 and 1988, when PTR "took off," the average gain increased to L230 per year. The total discounted benefits without diffusion from 1980 to 1989 sum to L23.5 million, whereas the discounted costs add up to L16.8 million, thus yielding a benefit/cost ratio of 1.4. If one allows for a modest 5 percent diffusion rate -- meaning that for every 100 beneficiaries, 5 new beneficiaries would acquire a technology spontaneously -- then the benefit/cost ratio increases to 1.8. These figures suggest that in economic terms the project has been very successful.

It is important here to emphasize the composition of PTR's technology portfolio. Most of the technologies promoted by PTR, and the bulk of their benefits, accrue to a large number of very small farmers. This has important distributional implications.

NGOs/PVOs have participated effectively in the technology transfer process, and indications are that they could play a greater role than they have to date. The chief advantage to this approach has been that many NGOs/PVOs have established close ties with rural inhabitants and are working in a wide variety of development activities. In addition, PTR operating expenses are reduced to the extent that areas not covered directly by PTR are covered by NGOs/PVOs.

Political intervention often contributed to high staff turnover, and or political considerations taking precedence over technical ones at all levels. The project had seven managers over the course of nine years. New managers often brought a new agenda to the project affecting project implementation.

Recommendations

Due to the fact that the project terminated on December 31, 1988, the recommendations listed here will not be accomplished with any direct AID involvement. Rather they are being made with the hope that the involved institutions within the GOH will recognize their pertinence to the future successful functioning of rural technology projects, and support them through appropriate institutional mechanisms, financing, qualified personnel, and proven methodologies. Major recommendations are:

That PTR continue to operate with a FSR/E approach to technology generation, validation, and dissemination. The evidence is overwhelming that this approach has brought positive benefits to the project.

Strengthen training in small-enterprise extension methodologies, and concentrate to a greater degree on generating technologies appropriate to small-scale rural industrial, artesanal, and service delivery enterprises. Concentrate on those rural enterprises with the potential to have an impact on the small-scale agricultural sector, both directly (employment generation and provision of services) an indirectly (backward and forward linkages, such as tool and implement construction) where PTR/UDA could continue to make an important contribution.

That the entire PTR structure be buffered against political intervention. The positions of manager and assistant manager of PTR should be nonpolitical; the candidates for these positions should meet specified technical criteria suitable for the jobs, and the positions should carry tenure guarantees.

That PTR/GOH creatively consider ways to continue PTR. Such a continuation would preclude the loss of much valuable experience gained at high cost over nearly ten years -- a cost that should not be incurred again. Since USAID must approve the use of ESF, that approval should be conditioned as described in the previous recommendation.

Seek assistance in marketing. So far, the weakest component that remains in the credit-technology link is a marketing strategy.

Update the computer system at PTR headquarters as soon as possible.

Insure that next year's budget (CY1989) includes funds for collecting debts of the existing portfolio.

Streamline the existing credit administration process. This revision should be made in cooperation with field staff.

Seek computer literacy for all department heads at the central office and for field personnel.

Increase bottom-up approach to managing implementation. Improvements are most urgently needed in the areas of applying for credit, the credit approval process, and data processing.

PTR sorely needs to systematically strengthen its reporting and information dissemination systems, and to make sure that its findings and experiences reach audiences that can best put them to use--whether in the field or within the relevant donor and host country agencies.

Certainly, PTR or other projects should continue the focus on resource -conserving and innovative energy-saving or fuelwood-substituting technologies that PTR has pioneered. This is one of Honduras' most pressing development needs. This is also true for import-substituting technologies, where these prove socioeconomically feasible.

Recommendations for future projects

Any future project should also incorporate PTR's flexibility and openness to user feedback, and its model of building upon indigenous practice, technology, and socioeconomic organization wherever possible. Blind, top-down, a priori, or coercive approaches to technology generation and transfer do not work.

At a broader level, future efforts at technology design, development, and delivery should closely attend to the features that characterize PTR's broadest successes: affordability, enhanced life quality, risk reduction, comprehensibility and ease of access, income generation, good fit with present farming and wage-labor patterns, an readily visible results.

In the design of future projects, careful thought should be given to the post-project future, and realistic options for continuation or institutionalization of successful endeavors should be outlined and explored from the beginning.

Lessons Learned

In the political-bureaucratic climate of Honduras, the number of key public institutions/agencies structured into a project should be as few as possible in order to avoid problems of coordination and of destructive political interventions. In a sense, the history of PTR over the past nine years has been one of either eliminating public institutions from the project, or of moving project functions away from them and toward private ones.

For PTR to have had an impact it would have had to be "embedded" in an institution -- in the Ministry of Economy (MOE) or the Ministry of Natural Resources (MNR), say -- and to employ that institution's line personnel and agencies rather than be appended to an institution as it has been to the Industrial Development Center (CDI). The link between the MOE and the MNR has been fragile and tension prone.

An effective technology adaptation and extension project must have at least semiautonomous status if it is to be lodged in the public sector. It must have timely access to operating funds (through a revolving fund, perhaps) because its work requires highly mobile technical teams whose effectiveness depend upon frequent visits to rural beneficiaries. Bureaucratic delays in funding can adversely affect the critical technician-beneficiary relationship. In addition, such projects must be able to control the composition and quality of their staffs.

It is possible to link credit and technical change effectively. There have been many projects that promote credit and technical change among small farmers in Honduras. Most have failed. What sets PTR apart from other projects is its use of farming system methods. This allows farmers to have a voice in the design of technologies and, to a large extent, in the design of the credit program. In addition, the use of sondeos has helped identify potential users of credit and technology.

Reviewing the six top-ranked technologies disseminated by PTR, several key characteristics emerge. They are: (1) Most are fairly affordable; (2) A number enhance life quality -- by decreasing drudgery or by improving the quality and quantity of foodstuffs; (3) Many reduce risks from natural and climatic vagaries; (4) They are easy to understand and use; (5) A number generate cash earnings, either directly or indirectly; (6) Most fit comfortably into present systems of farming combined with migration and (7) results of all the top-ranked technologies are fairly quickly visible: even in the case of soil conservation, farmers remark notable increases in production in the space of one cropping season

The systems approach, beginning with diagnosis and moving through the stages of testing, adaptation, and dissemination, provides a well defined methodology.

There is a close relationship between effective technology generation and extension and the kind and amount of training received by field personnel. Relevant and systematic in-service training is particularly important in this regard.

## ATTACHMENTS

K. Attachments (List attachments submitted with this Evaluation Summary; always attach copy of full evaluation report, even if one was submitted earlier; attach studies, surveys, etc., from "on-going" evaluation, if relevant to the evaluation report.)

**ATTACHMENT A.** Final Evaluation of the Honduras Rural Technologies Project December 1988 (forwarded to AID/W on March 9, 1989)

**ATTACHMENT B.** Outline of Basic Project Identification Data.

## COMMENTS

L. Comments By Mission, AID/W Office and Borrower/Grantee On Full Report

1. As of the PACD, 12/31/88, the Rural Technologies Project is receiving no further direct assistance from USAID. USAID will support, when appropriate and when consistent with sectoral development objectives, the programming of GOH local currency resources generated from ESF cash transfers and/or PL480 Title I imports for rural technology programs. USAID must concur and monitor GOH use of local currency generations.

2. The evaluation report has met the terms of the scope of work more than adequately. The report provides answers to all the questions posed; its findings concur with the range of investigation and interviews held by the team; and no biases were evident in the perspective of the team.

3. While the evaluation did not surface any unforeseen issues, it did stress several areas of long term interest which perhaps merit full scale attention in themselves: sustainability of institutional efforts; and technology dissemination in Honduras. The evaluation presents solid discussion of these issues in the context of PTR.

4. Some sensitivity was apparent in some GOH employee reactions to the finding of "political intervention" during the life of PTR. The finding was in fact the result of interviews and opinions of current and past GOH employees. This finding was adequately balanced by praise and citation of PTR's many accomplishments.

1. Country: HONDURAS

2. Project Title: RURAL TECHNOLOGIES (PTR)

3. Project Number: 522-0157

4. Project Dates:

   a) First Project Agreement: 08/07/79
   b) Final Obligation Date: 03/15/86
   c) Most recent Project Assistance Completion Date: 12/31/88

5. Project Funding: (amounts obligated to date)

| | |
|---|---|
| a) A.I.D. Bilateral Funding | US$ 9,000,000 |
| b) Other Major Donors | --- |
| c) Host Country Counterpart Funds | 13,080,976 |
| TOTAL | US$22,080,976 |

6. Mode of Implementation:

Primary Implementation responsibility was placed in the GOH Ministry of Economy (MOE) and partial responsibility for the activity carried out by a special Adaptation and Development of Technologies Unit (UDA) in the Ministry of Natural Resources )MNR).

The following AID contractors assisted on implementation tasks.

a) Partnership for productivity/the overseas education fund (PFP/DEF) 1/8/81-3/31/84

b) Val De Beausset 10/1/83 - 12/31/88

c) Servicios Técnicos del Caribe 5/1/83 - 2/28/88

d) Gwyn Williams 9/6/82 - 1/23/84

e) AGRIDEC 2/5/86 - 2/28/86 and 11/17/86 - 12/19/86

7. Project Designers:

USAID Project Design Group (Mission level) was chaired by Donald E. Anderson

GOH design role was assigned to a working group headed by the Technical Secretariat of the Agricultural Policy Commission.

Data was gathered utilizing the 1978 agricultural assessment and survey of Small Farmers 1977-78.

IRDC Group (London) provided a series of design recommendations, VITA AND AITEC (Costa Rica) were contracted to provide design advise.

A Rural industry survey of over 2,000 industries was made by CDI/AID and the Department of Economics of Michigan State University.

8. Responsible Mission Officials

a) Mission Directors:

| | |
|---|---|
| J. B. Robinson | (1979 - 1979*) |
| John Oleson | (1979 - 1981) |
| Anthony Cauterucci | (1982 - 1986) |
| John A. Sanbrailo | (1986 - 1988) |

b) Project Officers:

| | |
|---|---|
| Carlos F. Poza | (1979 - 1979) |
| Peter Deinken | (1979 - 1981) |
| Marc C. Scott | (1981 - 1983) |
| Blair Cooper | (1984 - 1987) |
| Robert J. Wilson | (1987 - 1988) |

9. Previous Evaluations:

a) Impact Evaluation of Rural Technologies Project (522-0157)
Development Associates Inc. - June 20 - July 15, 1983

b) Impact Evaluation of Rural Technologies Project
Winrock International December 6, 1985 - March 8, 1986

* Project Paper approval