

A.I.D. EVALUATION SUMMARY - PART I

PID 1153-503

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

IDENTIFICATION DATA

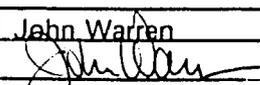
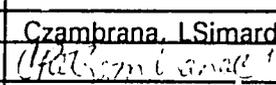
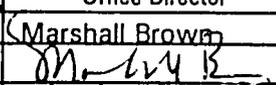
A. Reporting A.I.D. Unit: Mission or AID/W Office <u>USAID/Honduras</u> _____ (ES# <u>FY94 - 4</u>)	B. Was Evaluation Scheduled in Current FY Annual Evaluation Plan? Yes <input type="checkbox"/> Slipped <input checked="" type="checkbox"/> Ad Hoc <input type="checkbox"/> Evaluation Plan Submission Date: FY 94_ <u>Q 2</u>	C. Evaluation Timing Interim <input type="checkbox"/> Final <input checked="" type="checkbox"/> Ex Post <input type="checkbox"/> Other <input type="checkbox"/>
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D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date for the evaluation report.)					
Project No.	Project / Program	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
522-0268	Irrigation Development Project (IDP)	1986	10/93	22,500	15,740

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director <p style="text-align: center;">Action(s) Required</p> <p>Project management discussed the evaluation report with the GOH counterparts. Representatives of the Directorate of Water Resources agreed on the need to implement the following recommendations.</p> <ol style="list-style-type: none"> 1. Develop irrigation training programs in the various universities or at other training institutions, such as "Centro de Entrenamiento de Desarrollo Agrícola" (CEDA) and the Pan American School at Zamorano to sustain and strengthen the competence of the private sector in irrigation design and construction. 2. Assist irrigation districts in obtaining required equipment for operation and maintenance so that privatization can be completed. 3. Find new sources of financing for irrigation development and continue to promote irrigation to achieve sustainability of the IDP achievements. 	Name of Officer Responsible for Action Armando Busmail	Date Action to be Completed Completed
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APPROVALS

F. Date of Mission Or AID/W Office Review Of Evaluation:				(Month)	(Day)	(Year)
				June	07	1994
G. Approvals of Evaluation Summary And Action Decisions:						
	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission of AID/W Office Director		
Name (Typed)	John Warren		Czambrana, L Simard	Marshall Brown		
Signature						
Date			6/9/94	6/9/94		

E. Action Decisions Approved by Mission (*Continued*)

4. Conduct training programs for farmers in the area of on-farm water and fertilizer management to assure efficiency, productivity, and sustainability of new irrigation systems.
5. Grant clear titles for small irrigated farms and promote the enactment and implementation of a water law which will grant and protect water rights.
6. Consider the establishment of a system for interagency cooperation in multipurpose water resource planning and development.

ABSTRACT

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

The Irrigation Development Project (IDP) NO. 522-0268 was a seven year effort to enhance the earning potential of Honduran farmers by supporting the construction and operation of approximately 5,258 hectares of irrigation systems. The Government of Honduras' (GOH) Water Resources Directorate (WRD) was charged with implementing the project. AGRO ENGINEERING conducted this final evaluation by reviewing project documentation, interviewing more than 50 public and private sector representatives associated with the project, visiting the Project's four regional offices and irrigation subproject sites, and preparing basic analyses to support evaluation findings and recommendations. The purpose of this evaluation was to assess the overall performance of the Irrigation Development Project in terms of achieving its goal and purpose.

According to the evaluation team, a) the IDP had a highly significant impact in increasing the awareness of the benefits of irrigation within the farming population, the banking community, government entities, and other sectors (over 5,000 hectares of irrigation systems constructed is a highly visible example of success); b) there now exists a private sector capability for designing and constructing quality on-farm irrigation systems; c) the IDP was successful in providing credit for irrigation development through private banks; d) IDP credit did not reach subsistence farmers due to their lack of land titles for collateral and water rights; and e) limited assistance was provided for on-farm water management.

The evaluation team noted the following "lessons learned": a) privatization of irrigation design, construction and supply industries, and the rapid awareness of the benefits of irrigation can be brought about through an extensive irrigation project such as the IDP; b) good capability in irrigation design and construction can be developed in a relatively short time through training programs and extensive hands-on experience such as occurred in the IDP; c) access to credit, which is essential for irrigation development, depends on farmers ownership of land with water rights; d) the extensive character of the IDP over several regions of the country and the success of the irrigation subprojects to date have created highly visible examples of the potential benefits of irrigation. Bankers, farmers, irrigation suppliers, and government have all seen the potential benefits from irrigation development. The IDP can serve as a model in other countries where the benefits of irrigation are yet to be realized.

COSTS

I. Evaluation Costs

1. Evaluation Team		Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. \$)	Source of Funds
Name	Affiliation			
Leroy Salazar	AGRO ENGINEERING	522-0268-00-3394	\$25,199.00	DA GRANT
2. Mission/Office Professional Staff Person-Days (Estimate)		30	3. Borrower/Grantee Professional Staff Person-Days (Estimate)	
			90	

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:

- | | |
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| <ul style="list-style-type: none"> ● Purpose of evaluation and methodology used ● Purpose of activity(ies) evaluated ● Findings and conclusions (relate to questions) | <ul style="list-style-type: none"> ● Principal recommendations ● Lessons learned |
|--|--|

Mission or Office
USAID/Honduras

Date This Summary Prepared:
July, 1994

Title And Date Of Full Evaluation Report: Final Evaluation of Irrigation Development Project PRORIEGO. Project No. 522-0268 Sept. 93

1. Purpose of the Evaluation

The purpose of this evaluation was to assess the overall performance of the Irrigation Development (IDP) Project (522-0268). The evaluation indicates how project strategies affected the achievement of expected outputs, assesses the achievements of the project at the purpose and goal levels to the degree the information was available, identifies important lessons learned, estimates the sustainability of the development accomplishments and includes recommendations for improving the advancement of irrigated agriculture in Honduras.

The evaluation team reviewed project documents, including implementation plans, consultants' reports, internal IDP and USAID progress and monitoring reports. Visits were made to the Project's four regional offices, farms, and the irrigation districts. Farmers, professionals, irrigation project designers, bankers, project officials, directors of the water users associations, and irrigation suppliers were interviewed.

The evaluation team was asked to specifically address the following areas: a) private sector capabilities for delivering irrigation design and construction services in a sustainable manner to the agricultural community, b) the feasibility of water users associations to independently manage and operate the districts, and the additional support or actions required for them to do so, c) actual private banks participation in the financing of irrigated agriculture in comparison to when the project was initiated and their willingness to continue such financing after the project, d) the project's contribution to agricultural productivity, production, and exports, e) the extent to which women had the same access to the IDP services as compared to men.

2. Purpose of the Project

The purpose of the IDP was to improve farmer productivity and production by providing irrigation technology and on-farm technical assistance related to improved agricultural practices. The project was expected to benefit farmers or groups of farmers with holdings ranging in size from 6 to 50 hectares, in addition to farmers associated with cooperatives, producers' associations or agrarian reform organizations. According to the Project Paper, crops would be planned according to the agronomic and climatic characteristics of the plots in order to achieve maximum profitability.

3. Findings and Conclusions

a) The IDP provided assistance for the design of irrigation projects on 6,720 hectares, and construction of irrigation systems on 5,255 hectares nationwide. Through this level of activity it also promoted privatization of design and construction of farm-level irrigation systems. Eight engineers and ten companies are qualified to design and construct on-farm irrigation systems. There now exists a private sector capability for designing and constructing quality on-farm irrigation systems. This capacity was developed through long and short-term training programs outside of Honduras, through short-term training in-country, and through extensive hands-on experience in design and construction supervision on subprojects. Review, inspection, standards, and supervision were provided in order to have quality control. Capabilities of the irrigation supply and construction industry are adequate to meet the current demand for irrigation services.

SUMMARY (Continued)

b) The IDP also promoted and assisted in the privatization of Comayagua's irrigation districts by water users associations. Farmers organized in water users associations have developed workable rules and regulations for the administration, operation, and maintenance of the districts. The privatization of the operation and management of the three irrigation districts in the Comayagua Valley is proceeding well.

Management of the irrigation districts in the Comayagua Valley has been turned over to water users associations. With some additional training, the water users associations will be able to fully maintain and manage the districts as soon as these are rehabilitated and when the districts are equipped for routine maintenance operations. Their lack of water rights is a major obstacle to farm production and productivity.

c) The IDP developed mechanisms to assist and encourage banks to finance irrigation activities. Twelve private commercial banks participated as financial intermediaries in the project's credit line for irrigation infrastructure and crop production. The credit financed by the project has constructed 3,518 ha. of irrigated land. A highly significant impact of the IDP was an increased awareness of the benefits of irrigation within the farming population, the banking community, government entities, and other sectors due to the success of the IDP subprojects. As a result, farmers and bankers are more willing to invest in irrigation. However, IDP credit did not reach subsistence farmers due to their lack of collateral. The IDP subprojects on over 5,000 hectares provide highly visible examples of success.

d) Seventy-five percent of the area in the projects was used for production for export. Bananas were the principal crop. Nineteen percent was for nontraditional crops including tomatoes, melons, watermelons, onions and squash. The evaluation analyzed the production situation to September, 1993 (first cycle between 1988-1993) and concluded that 152,635 metric tons of crop production resulted from 4,150 irrigated hectares that were surveyed in the four project areas. Furthermore, the report states that in areas where new systems were installed on land not previously irrigated, increased production and economic benefits were easily noted, especially when subprojects targeted nontraditional products. The evaluation also states that better crop yields could have been achieved with the use of fertilizers and better on-farm water management practices. Export earnings from irrigation subprojects are expected to be four to five percent of the Honduran total, with a reduction in unemployment of 1.5 percent. Indirect benefits are expected to exceed direct benefits by more than five times.

e) Culturally, in Honduras the agricultural field is dominated by men. This is directly reflected in how male entrepreneurs and large land owners invest capital in their area. Women are more involved in agriculture at the subsistence level, and the IDP did not reach this group of individuals because of constraints in obtaining credit. If the IDP had a gender bias, it may have been in favor of women. Women with comparable qualifications had equal or better access to Project activities and/or benefits than did men. However, involvement of women in the Project was less than that of men for cultural reasons. For example, men make the majority of the decisions at the farm level. This is particularly true on larger farms.

f) With regards to the actions recommended by the interim evaluation, Project management was successful in improving the efficiency and effectiveness of the credit component, in reincorporating project activities and phasing project personnel and material into the Water Resources Directorate (WRD) before the PACD. Major obstacles were encountered to implement the proposed modifications to the regulations governing the credit component to allow for the allocation of funding for a campesino irrigation construction activity for micro-irrigation systems. Additional technical assistance resulted in the improved quality of irrigation systems design and construction, and a draft water law that was presented to Congress in 1993.

SUMMARY (Continued)

4. Principal Recommendations

Primary recommendations which are necessary to sustain and accelerate irrigation development are:

- a) The competence of the private sector in irrigation design and construction should be sustained and strengthened. To accomplish this, the GOH should develop irrigation training programs in the various universities or at other training institutions, such as CEDA and the Pan American School at Zamorano.
- b) Irrigation districts should be assisted by the GOH in obtaining required equipment for operation and maintenance so that privatization can be completed.
- c) To achieve sustainability of the IDP achievements, irrigation should continue to be promoted. The GOH should make every possible effort to find new sources of financing for irrigation development.
- d) Continued technical assistance is recommended for on-farm water and fertilizer management. A training program which will reach farmers in the field is necessary to assure efficiency, productivity, and sustainability of new irrigation systems.
- e) Efforts are recommended for the GOH granting of clear titles for small irrigated farms and for enactment and implementation of a water law which will grant and protect water rights.
- f) GOH should assign priority to a country-wide natural resources inventory, with emphasis on groundwater and surface water.
- g) A system for interagency cooperation in multipurpose water resource planning and development is essential for development of irrigation resources, along with other needs of the country, and should be considered as priority by GOH.

5. Lessons Learned

The following lessons learned were identified by the evaluation team:

- a) Privatization of irrigation design, construction and supply industries, and the rapid awareness of the benefits of irrigation can be brought about through an extensive irrigation project such as the IDP.
- b) Good capability in irrigation design and construction can be developed in a relatively short time through training programs and extensive hands-on experience such as occurred in the IDP.
- c) Credit cannot be made available through the private banking system if farmers do not have titles to their land. Farmers without titles to their land were not able to qualify for financing of irrigation systems. A GOH strategy for giving priority to the granting of titles for small irrigated farms will improve credit, permit land consolidation, and permit block management through leasing and other arrangements.
- d) The IDP has demonstrated that privatized irrigation can provide many opportunities and benefits for the rural poor, ie. increased production, productivity and income.
- e) Access to credit is essential for irrigation development. A key to opening credit avenues has been the success of well-designed irrigation subprojects which have resulted economically and financially viable.
- f) The extensive nature of the IDP over several regions of the country and the success of the irrigation subprojects to date has created highly visible examples of the potential benefits of irrigation. Bankers, farmers, irrigation suppliers, and government have all seen the potential benefits from irrigation development. The IDP can serve as a model in other countries where the benefits of irrigation are yet to be realized.

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: Outline of Basic Project Identification Data

Attachment B: Evaluation Report titled Final Evaluation of Irrigation Development Project PRORIEGO, Project No. 522-0268. This report was forwarded to USAID/W on January 26, 1994.

COMMENTS

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

The report of the Irrigation Development Project final evaluation satisfies the demands of the scope of work to the degree the information was available. Given that a baseline survey was not executed during the life of the project, the evaluation team could not fully measure increases in farm income, production and productivity. However, it was noted that the mere installation of irrigation systems for the cultivation of nontraditional crops highly benefited participating farmers. Impact at the goal and purpose levels could not be completely measured due to the limited scope of the project's information system. Therefore, the report was limited to the assessment of project performance in terms of its strategies and outputs. In this regard, the project was successful in adding about 12% to the total irrigated land in Honduras.

Lessons learned were discussed in the report. Significant shortfalls in project progress occurred during the first three years. This situation was caused by delays in the approval of the project's credit component which had been originally designed to reach small campesino farmers (in the subsistence to commercial range). The final credit regulations, authorized three years into the project via the private commercial banks, excluded farmers without loan collateral. The project was never amended to address this situation and the original target group was kept through its implementation. As designed, the project's credit component was not an appropriate mechanism for reaching small campesino farmers. Other implementing options should have been considered if irrigated agriculture was to be targeted to small campesino farmers, especially in view of the principal constraints identified such as the lack of clear land titles and a simple procedure for acquiring water rights.

The report also estimates the sustainability of the development accomplishments and contains recommendations for improving the advancement of irrigated agriculture in Honduras. Bankers' experience has shown that irrigation is a profitable activity, and they are now willing to continue to onlend with their own resources if potential clients have good irrigation project designs and feasibility studies, and the required collateral. However, on various occasions farmers have suggested that financial resources under favorable terms are needed from the international donor community to significantly develop irrigated agriculture in Honduras.

Transfer of management of the irrigation districts (Comayagua) to the Water Users Associations (WUAS) was finalized in mid March, 1993. The project supported this privatization initiative by providing the WUAS with technical assistance in the areas of district management and irrigation technology. Local currency generated funds (PL-480 Title III) were provided by the GOH as counterpart to the project to finance the construction and rehabilitation of irrigation infrastructure consisting of approximately 4,400 linear meters of concrete lined canals. Operation and maintenance activities are executed by the WUAS with the support of the GOH. Actions still needed in this area include: a) additional training to further the privatization efforts, b) addressing the issue of lack of water rights and clear land titles, c) provision of financial resources for the rehabilitation of the irrigation districts and, d) removal of subsidized prices for irrigation water.

The team's evaluation methodology was sound and they spent adequate time in the field and in personal interviews to develop their findings and recommendations. Their analyses were well executed and the Mission accepts the findings and recommendations, notwithstanding the information constraints.

ATTACHMENT A

OUTLINE OF BASIC PROJECT IDENTIFICATION DATA

1. COUNTRY: Honduras
2. PROJECT TITLE: Irrigation Development
3. PROJECT NUMBER: 522-0268
4. PROJECT DATES:
- a. First Project Agreement: 9/29/86
 - b. Final Obligation Date: 3/15/91
 - c. Project Assistance Completion Date: 10/31/93
5. PROJECT FUNDING: (amounts obligated to date in dollars or dollar equivalents from the following sources):
- a. USAID Bilateral Funding (grant and/or loan) US\$15,740,412
 - b. Other Major Donors US\$ --0--
 - c. Host Country counterpart contribution US\$10,775,200
 - Total US\$26,515,612
6. MODE OF IMPLEMENTATION: USAID Direct Contract/Winrock International
7. PROJECT DESIGNERS: Government of Honduras and USAID/Honduras
8. RESPONSIBLE MISSION OFFICIALS:
- a. Mission Director(s): Carl Leonard (Acting) 09/86 to 11/86
John Sanbrailo 11/86 to 08/91
Marshall Brown 08/91 to 10/93
 - b. Project Officer(s): John Warren 09/86 to 11/87
Robert Wilson 11/87 to 05/88
Craig Anderson 06/88 to 02/89
Mike Maxey 02/89 to 06/90
Rafael Rosario 06/90 to 09/93
John Warren 09/93 to 10/93
9. PREVIOUS EVALUATION(S): Interim Evaluation - August, 1989