

PROJECT EVALUATION SUMMARY (PES) - PART I

1. PROJECT TITLE <b>WATER RESOURCES MANAGEMENT Grant</b>		2. PROJECT NUMBER 522-0134	3. MISSION/AID/W OFFICE USAID/HONDURAS
5. KEY PROJECT IMPLEMENTATION DATES		4. EVALUATION NUMBER (Enter the number maintained by reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 522-	

5. KEY PROJECT IMPLEMENTATION DATES		6. ESTIMATED PROJECT FUNDING	7. PERIOD COVERED BY EVALUATION
A. First PRO-AG or Equivalent FY <u>76</u>	B. Final Obligation Expected FY <u>78</u>	A. Total \$ <u>874,000</u> B. U.S. \$ <u>600.00</u>	From (month/yr.) <u>6/77</u> To (month/yr.) <u>11/78</u> Date of Evaluation Review <u>2/79</u>

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
<p>USAID/H will monitor the return of the 13 participants trained under this project and encourage their appropriate and timely job-placement within the GOH agencies responsible for Water Resources Management.</p> <p>The areas of analysis not sufficiently covered by the consultants (see Sections 13, 19) will be further studied in preparing for the follow-on loan</p>		

<p>9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS</p> <p><input type="checkbox"/> Project Paper      <input type="checkbox"/> Implementation Plan e.g., CPI Network      <input type="checkbox"/> Other (Specify) _____</p> <p><input type="checkbox"/> Financial Plan      <input type="checkbox"/> PIO/T</p> <p><input type="checkbox"/> Logical Framework      <input type="checkbox"/> PIO/C      <input type="checkbox"/> Other (Specify) _____</p> <p><input type="checkbox"/> Project Agreement      <input type="checkbox"/> PIO/P</p>	<p>10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT</p> <p>A. <input type="checkbox"/> Continue Project Without Change</p> <p>B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan</p> <p>C. <input type="checkbox"/> Discontinue Project</p>
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<p>11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)</p> <p>William Janssen Assistant Director for Rural Development</p> <p>Cleared by: Barry Burnett Chief OPCR</p> <p>Jimmie Stone, A/AD</p> <p>Robert Thurston Office of Rural Develop.</p>	<p>12. Mission/AID/W Office Director Approval</p> <p>Signature: <i>John L. Lovaas</i></p> <p>Typed Name: John L. Lovaas Acting I</p> <p>Date: March 12, 1979</p>
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### 13. SUMMARY

Since its initial description in the Project Paper, this project has undergone some design changes. All such changes were included in the contract financed under this project. During early stages of implementation, project managers realized that the emphasis of the project needed modification in order to better address the technical and institutional realities of water resources management in Honduras. These changes reflect refinements in degree and relative emphasis rather than changes in the direction and scope of the project. The project was still to serve as a precursor to a follow-on loan and its purpose remained to improve the coordination, management and technical capabilities of the GOH for developing the water resources of Honduras.

Modifications in design jointly agreed to with the GOH entailed:

1) designation of the Water Resources Unit of the Ministry of Natural Resources as the project implementing agency, rather than the previously designated National Water Commission; 2) the design of a specially tailored 15-month course at Utah State University to provide appropriate, broad training and skills, rather than the originally planned conventional curriculum; 3) an expansion of the scope of proposed feasibility studies activity to include an analysis of national policy and institutional aspects of water management as well as the physical, financial and manpower aspects of possible pilot problem-oriented projects. These changes were agreed upon between the GOH and AID and fully embodied in the contract financed under the Project.

RESULTS The 15 month specially-tailored academic program was to be broad gauged and provide the participants with a sound and well-rounded

conceptual grasp of water use and management as well as some specific practical skills in irrigation/drainage areas. From the final report submitted by the CID on the training component of the project it appears that the training touched upon the specific areas for training called for in the contract yet over-emphasized irrigation training in relation to the other contractual training requirements.

The Ministry decided to finance an additional quarter of training for all of the participants sponsored by that agency (12) and M.S. studies for those accepted by the graduate school at Utah State University. Numerous seminars and informal lectures have been given by the consultants in Honduras meeting the expected attendance levels. (See Section 17 for quantitative outputs).

A serious problem encountered in project implementation was the disappointing performance of the contractor in carrying out the prescribed scope of work to an acceptable quality level. The contract prescribed water resources development in a broad resource utilization and conservation perspective while the contractor's focus had a sharp, and limited, irrigation bias. As a first step, the USAID expected and the contract called for a comprehensive analysis of water and related soil resource management problems and possibilities and a proposed strategy for dealing with these. From this the GOH and the USAID could jointly agree to a set of problem areas to be studied in greater detail for possible inclusion in a program receiving AID loan financing.

In fact, the CID group developed a list of project possibilities in the absence of a coherent and comprehensive description, analysis,

rationale and strategy statement. Continued dialogue among representatives of the GOH, CID and USAID/H aimed at correcting the deficiencies, took place from October 1977 to March of 1978. The final CID product presented in July of 1978 led to some improvement in the conceptual and analytical framework for water resources management activities but the specific undertakings originally proposed were not significantly modified nor was a strong rationale for the activities clearly stated by the CID group. It was only at the strong insistence of USAID/Honduras that any significant effort at all was made to describe the institutional and legal environment for water resources development in Honduras. The same holds true for incorporating watershed management into the final set of recommendations in any meaningful way.

It should be noted that the Mission communicated regularly with both the CID and GOH concerning weaknesses perceived in the work performed by CID representatives throughout the project period. Mission staff collaborated with GOH and CID technicians in drawing up outlines and scopes of work for various areas to be dealt with. In addition, the Mission recommended possible consultants to the CID for carrying out specific studies when the CID was unable to come up with candidates. Formal meetings were held with all parties present on October 1, 1977, December 1, 1977 and March 9, 1978. An AIDE MEMOIRE formally stating the Mission's misgivings concerning the quality and scope of the work was sent to the Minister of Natural Resources on April 27, 1978, with a copy to CID.

The last CID report submitted on July 21, 1978 was completed by a consultant recommended to the CID by the Mission to fulfill the terms

of the contract. In general the report is superior to any previous CID attempt. Still, it fails to satisfactorily cover all of the ground required in the contract scope of work. A reasonable argument is made for focusing on agricultural water development given that the country's economic and social structure is highly rural and its growth potential is linked to increased agriculture production. Given this agricultural orientation toward water resources development, the treatment of other uses and corresponding agencies is still barely adequate. However, the description, analysis and recommendations concerning inter-agency complementarities/relationships within the agricultural sector is incomplete and superficial. Whereas the over-all problem identification and description is adequate, the final recommendations are identical to those made in earlier CID reports with only the cost figures modified. Little of the new information or suggestions for attacking priority problems are reflected in the set of final recommendations. Finally, an explicit statement of a five year water resource development strategy is not provided. However, the thrust of the recommendations is directed toward training, basic information gathering and institutional strengthening all of which, at this time are priority needs. The longer-run, policy-related issues such as large scale versus small scale projects, area development focus, export commodity and local consumption production mix, capital or labor intensive approach, degree of government and private participation are raised but are left to be resolved by the GOH.

The Mission also had problems with CID reimbursement vouchers first with regard to the lack of detail provided (although as strictly defined, vouchers were in conformance with contract terms) and secondly with their la:

and delayed submission. This has hindered adequate financial tracking by the CID Chief of Party, his GOH counterpart as well as by Mission staff. All in all the performance of the contractor has to be regarded as disappointing. From conversations held with GOH officials it is clear that during project implementation they regarded the CID effort in some respects to be too superficial and not intensive enough given the requirements established in the scope of work

#### 14. EVALUATION METHODOLOGY

Because of changes in project design and expected outputs, the evaluation did not fully correspond with the design, scope, methodology and issues indicated in the Project Paper. Rather, the Project Paper Amendment, the Project Agreement, and the Professional Services Contract for the CID consultants served as more appropriate reference documents. The evaluation was conducted by an AID staff member who was not a participant in the execution of the project. It was reviewed, however, by persons thoroughly familiar with project operations.

The following activities were undertaken in the evaluation:

- 1) Review of all A.I.D. project documentation
- 2) Review of consultants' monthly and final reports
- 3) Discussions with CID Chief of Party
- 4) Discussions with appropriate staff members of the USAID and the Water Resources Unit of the MNR.

#### 15. EXTERNAL FACTORS

The management of water resources is an increasingly important priority of the GOH. Therefore, the purpose of the project and its role

as a precursor to a Water Resources Management Loan maintain their validity.

In order to coordinate GOH interests in water and influence water policy decisions, an important assumption of the project was that inter-agency rivalries as to water resource development prerogatives would be surmountable. The modified project design reflects this concern. A new entity, the National Water Commission, which would have assumed various functions and responsibilities of the government agencies already working in water resource development, failed to materialize as did the Water Law which would have created this Commission. A decision was then made to work with existing institutions and to strengthen them in such a manner as to better coordinate their activities. The final CID report stresses the importance of multiple use planning and identifies CONSUPLANE as the entity to provide over-all coordination, policy direction and planning.

Other assumptions concerning external factors dealt with the availability of participants, trainers and a suitable training program. Thirteen participants were identified -- 12 from the MNR and 1 from COHDEFOR. It was anticipated that other water-related agencies would also send participants (SANAA, ENEE, SECOPT). The MNR formally contacted these organizations informing them of this opportunity but none, for reasons which are not clear, came forward with qualified candidates. Utah State University provided qualified trainers as well as a specially tailored non-degree program more suited to the needs of the participants including intensive English instruction and special training in mathematics.

statistics and physics.

16. EVALUATION FINDINGS ABOUT PURPOSE

Purpose: "Improve Coordination, Management, and technical capability of the GOH for developing the water resources of Honduras".

END OF PROJECT STATUS:

- a. Water Commission or its interim equivalent established with a recurring budget and a permanent staff.
- b. Commission gathering information and performing analyses related to national water policy and water projects.
- c. Commission staffed by technicians trained in all aspects of water resources development.
- d. Commission coordinating GOH interests in water and influencing water policy decisions.
- e. National water policy, embodied in a National Water Law and its regulations, will be in effect.

Given the changes in the scope and emphasis of the project, the specific end-of-project status (EOPS) conditions of the original Project Paper have only been approximated. A discussion of the progress made toward each of the above EOPS conditions follows:

- a. The Unit of Water Resources (WRU) of the Ministry of Natural Resources has been established with a recurring budget and a permanent staff reflecting the increasing priority being given to water resources within the Ministry. The Unit is gaining increased recognition and all major consultant reports focus on the WRU as the key institution which must be strengthened for water resource development.

b. The consultants' reports include recommendations for comprehensive water planning, irrigation research, hydrologic and climatologic data collection, soil classification and analyses and precipitation records. A new computer facility and data bank have been proposed to tie into the Central American Regional Commission for Hydrological and Meteorological Resources.

c. The long-term training component of the project has provided a cadre of technicians who have studied some aspects of water resources development. An additional training program has been outlined by the CID consultants and in modified form will form a major activity of the follow-on loan.

d. Based partially on the consultants' final report, the National Planning Council in collaboration with the Ministry of Natural Resources, has developed a National Water Resources Plan as part of a major five year National Development Planning exercise.

e. The consultants provided a brief report on existing water laws in Honduras which includes a number of recommendations for a new water law and also critiques the current proposed version of the Water Law.

Although the consultants' efforts were weak in areas concerning inter-agency complementarities/relationships within the agricultural sector and in providing realistic and viable suggestions for attacking priority problems within the framework of a comprehensive five-year strategy, the overall water resources problem identification and description is adequate, and a description of discrete undertakings which could lead to the solution of various problems is provided. Long-

run policy related issues are raised but are left to be resolved by the GOH. Thus, the project purpose has been achieved to the extent that a basis has been provided for future activity through the identification of principal needs of basic information and training, the identification of several major problems bearing on water resources development in Honduras, generalized solutions for most of these problems and the training of a group of technicians who, although unprepared to help formulate a water policy framework, will be better able to design and implement projects to carry out these recommendations.

## 17. EVALUATION FINDINGS ABOUT OUTPUTS AND INPUTS

### 1. Outputs

a) 13 Hondurans participated in a specially designed 15-month course in management and administration of water resources at Utah State University. 8 of the participants have met the requirements to continue their studies at the Masters level. The course content emphasized irrigation at the expense of subjects such as water conservation, drainage, flood control and industrial and domestic uses.

b) Some 63 participants attended 7 formal seminars in Honduras conducted by the CID consultants in the areas of irrigation, water resource planning, groundwater, soils, hydrology and meteorology, computer methods, and irrigation and extension methods. Training courses in irrigation drainage and use of climatic data were given by the CID Chief of Party for two of the agricultural schools of Honduras for both professors and students.

c) Eight CID consultants gave "in-house" courses of varying duration (total of approximately 200 hours) for the Unit of Water Resources in hydrology, basic computer language, soils, and irrigation techniques. A briefing was provided for Peace Corps Volunteers working with irrigation systems. The CID contributed to a 160-hour course for 18 participants in coordination with the Israeli Government on irrigation and extension methods taught by three Israeli experts.

d) Five training pamphlets were prepared for the areas of sprinkler irrigation, surface irrigation, drainage, small earth dams, and crop selection and water requirements.

e) The 16 CID consultants (total of 16 man-months) prepared 16 reports describing the conditions now prevailing and the needs for assistance in the various sub-sectors of water resources. In addition, the consultants reviewed and made specific recommendations for actual plans for investment projects in the water resources sector of Honduras.

f) Technical assistance (one week in-country) was provided in the preparation of a proposed water law which is currently under review ~~within the Ministry of Natural Resources.~~

g) The CID provided occasional advice on water development matters to Ministry of Natural Resources policy-makers.

## 2. Inputs

The planned inputs were ultimately provided yet many of the reports submitted contain recommendations which are not feasible given the realities of the water resources sector in Honduras. The CID

expressed difficulty in locating suitable Spanish-speaking consultants and individuals qualified to conduct comprehensive and analytical evaluations of the water sub-sector; a lack of familiarity with Government of Honduras procedures and the lack of definition of those procedures; and difficulty in obtaining adequate background information from other Government agencies. Initially, due to budgetary, staffing and administrative obstacles, the WRU was slow in providing all of the required facilities, counterpart personnel, office and other support items needed by the contractor. These problems were eventually resolved and the overall project objectives were accomplished to a minimal degree. The CID found the Government agencies with which it was working to be generally cooperative and supportive of the project.

18. CHANGES IN DESIGN OR EXECUTION

See 13, 15, 16 above.

19. LESSONS LEARNED

In June 1976 this project was proposed as a \$2 million loan to be one element of a larger loan (Rural Reconstruction II). It was decided by AID/W that a loan of this magnitude would be premature given the capacities of the water resources sector in Honduras and that a grant project be initiated instead as a precursor to such a loan. The preparation of a new PP of the grant was accomplished in AID/W in a matter of days. The brief period of time devoted to the design of the PP and the fact that it was written without the benefit of consultation with the GOH is reflected in the subsequent problems in project implementation. As a result of the time constraints in the preparation of the

PP, it soon became apparent that project financing had been underestimated and that the project would need significant adjustments in order to properly address the actual needs of water resources management in Honduras. Ultimately a PP amendment was required.

The subsequent inflexibility of the CID consultants to broaden the focus of their scope of work was reflected in the generally disappointing quality of their work, which is characterized by a lack of a systematic and thorough problem analysis, strong and clearly stated rationales for the activities proposed, and a narrow focus on one aspect of water use.

Due in part to the delays caused by communication problems, and the sometimes unsatisfactory quality of work performed, A.I.D.'s original plans to justify and negotiate a Water Resource Management Loan during U. S. fiscal year 1978 have not been realized. In sum, more realistic project design at the outset and more flexible and receptive consultants would have resulted in better project results.

*What lessons were learned? Don't design a project without talking to agency which will implement it? (I thought we had learned that before.) Here a contractor who is so flexible he can operate well in a state of flux?*