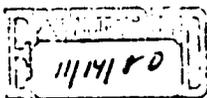


CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

517-0123000

Report Form: U-447

1. PROJECT TITLE INLAND FISHERIES 5170123-② PD-MMG-330-81				2. PROJECT NUMBER 517-0123
4. EVALUATION NUMBER Enter the number months past by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) FY 80				
<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION				
3. MISSION/AID/W OFFICE U.S.A., I.D./D.R.				
5. KEY PROJECT IMPLEMENTATION DATES A. First PRO-AG or Equipment FY <u>6/78</u> B. Final Obligation Expected FY <u>81</u> C. Final Input Delivery FY <u>80</u>		6. ESTIMATED PROJECT FUNDING A. Total \$ <u>160,000.</u> B. U.S. \$ <u>160,000.</u>		
7. PERIOD COVERED BY EVALUATION From (month/Yr.) <u>6/78</u> To (month/Yr.) <u>6/80</u> Date of Evaluation/Review <u>Sept/1980</u>				

B. 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., algram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
Although not planned in this project, Mission is looking into the possibility of gathering some economic base data that can be helpful in developing some larger scale fisheries project in the country.	Kenneth Ellis	10/31/80

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Project Paper</td> <td><input type="checkbox"/> Implementation Plan e.g., CPI Network</td> <td><input type="checkbox"/> Other (Specify) _____</td> </tr> <tr> <td><input type="checkbox"/> Financial Plan</td> <td><input type="checkbox"/> PIO/T</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> Logical Framework</td> <td><input type="checkbox"/> PIO/C</td> <td><input type="checkbox"/> Other (Specify) _____</td> </tr> <tr> <td><input type="checkbox"/> Project Agreement</td> <td><input type="checkbox"/> PIO/P</td> <td>_____</td> </tr> </table>	<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____	<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____	10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT A. <input type="checkbox"/> Continue Project Without Change B. <input checked="" type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan C. <input type="checkbox"/> Discontinue Project
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____											
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____											
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____											
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____											
11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles) Rafael Rosario: USAID/DR/AGRIC(PO) Ramon Rodriguez: USAID/DR/CRD(EVAL.) CLEARANCES: Charles Blankstein, CRDO Ronald Venezia, A/D	12. Mission/AID/W Office Director Approval Signature:  Type Name: Philip R. Schwab Date: October, 1980												

13. Summary

- Achievement of Objectives

The Inland Fisheries Project has integrated eight Peace Corps Volunteers into its activities. These activities have included educating rural community members in the value of fish as a source of protein in their diets. To accomplish this project personnel have worked with small communities in the interior of the Dominican Republic which have been or are associated with other programs of the Servicios Sociales de Iglesias Dominicanas (SSID).

Concomitant with nutrition-education these groups of families have been taught how to construct simple ponds, what, when and how to feed their fish and when and how to harvest fish.

To date, a total of eighteen (18) ponds covering a surface area of approximately two acres have been completed and stocked. In addition, there are four ponds presently in various stages of construction and another three sites have been surveyed and approved for the future construction of eight ponds.

The project has met with great success and the original objective -- to determine if rural Dominicans living in the interior of the country, would accept fish as a part of their diet -- has been met. The project is now proceeding on to a second phase in which cost of production data will be collected. Working in collaboration with INDOTEC the Inland Fisheries Project will collect production data from small farmers' ponds as well as under more controlled experiment station conditions.

SSID is working in coordination with the Government's Fish and Game Dept. on the production of hybrid tilapia fingerlings. The broodstock of said fish were brought in country from Puerto Rico by project Subdirector Juan Santana. The process was facilitated by said government institution and it is hoped by stocking this type of fish that current production figures will increase.

Also in the planning stages is the signing of a long range contract between SSID (IFP), Instituto Dominicano de Tecnología (INDOTEC) and the US Peace Corps. Already existing on the property of INDOTEC are four small fish ponds whose use will be for the following purposes:

- a. To maintain a pure strain of all classes of fish currently in use by the IFP. (Currently the 2 species of tilapia brought from Puerto Rico.)
- b. To ensure a continual supply of hybrid tilapia and carp fingerlings for stocking in IFP ponds.
- c. To maintain and keep in a good state of health the programs broad stock.

In addition to its physical facilities, another area that shall greatly help the program is the research role being assumed by INDOTEC. The institution is planning with the help of the Peace Corps Volunteers, the IFP field promoter and its own technicians to conduct an indepth socio-economic study.

14. Evaluation Methodology

The evaluation was carried out at the end of the second operational year in order to measure progress towards final goals. Evaluation was performed by SSID's staff members. Data was collected from SSID's reports to AID, internal progress reports and accounting books and also, fields visits and interviews with participating farmers.

15. External Factors

No major changes in project setting have occurred which have significant impact on the project.

16. Inputs

There are no commodities being procured under the project. The technical assistance provided by SSID to manage the project has been as planned. Training has progressed as scheduled.

17. Outputs

While doing an evaluation of this type an important question needs to be asked: "Were the agricultural, economic, social and nutritional benefits gained over the past two years worth the manpower and the money spent?" This must be answered affirmatively for the following reasons:

- a. There are now approximately 200 households involved in the program with over 1,400 beneficiaries.

Fish are being locally produced and consumed where none were previously available.

- b. The pilot project has disproved the myth that the Dominican campesino does not eat fish. It has been found to be a case of availability rather than acceptability.
- c. As a result of the canal systems that have been constructed to fill the fishponds, a number of farmers have improved their economic status by using excess water to irrigate their farms resulting in increased agricultural production, and in a few cases the development of land that has been unproductive without irrigation.

- d. In some cases, the fish are being sold. During Easter Week one farmer was selling part of his crop for 65¢ live, and 75¢ dressed resulting in needed income for his family.

A traditional sign of success in this type of project is the acceptance by the people. The project has progressed to the stage where people are now coming directly to the field promoters and soliciting aid for the construction of ponds. Even though promotion is still being carried out, due to the demand on the part of the rural campesinos, it is no longer an area of high priority. The project is "selling" itself by the results achieved.

Equally important is the level of technical education achieved by the Project Subdirector Juan Santana. Upon returning from a ten-week intensive training program in Fortaleza, Brasil, and with his two years plus of field experience he is the most qualified Dominican working in Aquaculture in the country today. He is completely qualified to supervise and direct any subject that the job might entail and could assume complete project responsibility at any time. In combination with his acceptance by the rural campesinos and his sense of urgency dealing with his work, it is his influence that has helped us to be where we are today.

18. Project Purpose

The purpose of this pilot project has not deviated from its original description. This being the development of intensive and economically viable fish ponds which produce a food crop (fish) through methods the typical rural farmer can afford and manage.

19. Goals/Subgoal

The principal long range goals of the project are nutritional, economical and informative (research) in character. Besides studying the feasibility of fish farming in the Dominican Republic and the acceptance of fish in the dietary habits of the rural populace, possible increased employment opportunities, additional income sources and an increase in animal protein consumption were seen as logical outgrowths of said pilot project.

As far as long range project continuity is concerned, the future looks promising. Combining the resources of SSID's two field promoters and the three Peace Corps Volunteers, achieving project goal is progressing at a faster rate than was originally expected.

20. Beneficiaries

Two hundred (200) households with approximately 1,400 beneficiaries are being benefited directly of this project. Although very little fish have been sold so far, in the future it is expected that the project will provide some income increase to the beneficiaries.

21. Unplanned Effects

No unplanned effects have been observed yet.

5170123 (3)
FD-AMG-330-C1

517-0123

DUPLICATE

July 3, 1979

Evaluation of Inland Fisheries Program/June 1979
USAID/DR OPG #517-0123
Approved: June 1978

Church World Service (CWS)
Servicio Social de Iglesias Dominicanas

I. BACKGROUND

A. USAID/DR Operational Program Grant No. 517-0123, titled "Inland Fisheries Program (IFP)", was approved on June 13, 1978. The implementing PVO is Church World Service (CWS), with its local counterpart agency, Servicio Social de Iglesias Dominicanas, Inc. (SSID). The grant was made to CWS because SSID is not registered with USAID's Advisory Committee on Voluntary Foreign Aid. The grant is for a three year period, and totals \$160,000.00; CWS's, SSID's, and GODR's contribution to the project totals \$137,988.50.

B. The purpose of this pilot project is to develop economically viable fishponds on small farms which produce a food crop (fish) through methods which the typical small farmer, agriculture association, and/or rural community can afford, and manage. The principal long range goal of the project is nutritional in character. Secondary goals include: (a) additional income source, (b) increased employment opportunities. The specific objectives of the USAID/DR grant are threefold:

1. Training

a. Extensionists - (four Dominicans) - Inland Fisheries

Management: Subjects to include site selection, pond construction, types of fish that can be cultivated, fish nutrition, reproduction diseases, environmental tolerances, water quality, predator control, spawning, growth, stocking, transportation of live fish, harvesting, sales, and related economics.

b. Participants - (small farmers) - Subjects to include fish pond construction, fish feeding, water level checks/necessary action, plankton levels, pond fertilization, harvesting techniques. This training will be provided by the extensionists.

c. Volunteer Promoters - (eight) - Training in community organization techniques, fish pond construction, fish culture, and other aspects of fish pond management as with participants.

2. Fish Pond Construction

Construct and stock twenty (20) ponds in 8-12 rural communities (20,000 inhabitants); maintain, cultivate, and harvest fish.

3. Nutrition Education

Training courses for project participants and families to include methods for cleaning, preparing, and preserving fish; address local taboos vis-a-vis fish consumption; benefits of fish in diet. A basic course of five hours duration is to be given in each geographic area included upon initiation of the project to be repeated with new pond construction and/or when approximately ten new families become involved.

C. The following are some criteria selected for measurement of successful progress of the project: (1) number of fingerlings distributed; (2) pounds of fish produced cyclically; (3) number of farmers requesting fingerlings; (4) number of new areas introduced to fishculture and number of ponds constructed; (5) number of farmers who are able and continue to cultivate fish on their own after preliminary advice and technical assistance; (6) amount of fish being sold and consumed; and (7) increase in interest and support from Government institutions for fishculture programs.

The continuation of USAID/DR funding for this grant, as stated in the Grant Agreement, is contingent on positive findings that fresh water fish are an acceptable addition to the diets of the rural poor, for whom fish were not a normal part of the diet before initiation of this project.

II. IMPLEMENTATION PROGRESS

A. Project Purpose (develop economically viable fishponds on small farms which produce a food crop and are affordable and manageable by small farmers).

Two methods have been used to date in the construction of the fishponds: (1) all manual labor; (2) mechanical plus manual labor. Below are tables (I and II), which present the cost for construction of a 300 m² (typical size) fish pond, by either method. Another table (III), presents the optimum and minimum production which can be expected from this pond.

<u>Activity</u>	<u>All Manual</u>	<u>Mechanical and Manual</u>
1. Dig Pond	480.00 = 1,200 man/ hours*	90.00 = bulldozer, 3 hours/ \$30/hour. 1 + 2 =
2. Finish Pond	-----	95.00 = gass, oil, etc. 70.00 = 175 man/hours labor.
3. Materials (pipe, cement, wood, etc.)	250.00 = (10 year replacement).	3,250.00
4. Equipment	150.00 = (3 to 10 year replacement).	4,150.00
5. Net	125.00 = (3 year replacement).	5,125.00
TOTAL	<u>1,005.00</u>	<u>780.00</u>

Production - (300 m² fishpond)

Maximum-Optimum = 150 lbs./8 months
200 lbs./8 months

Minimum = 50 lbs./8 months

(Sale price can vary from 40¢ lbs. to 60¢ lbs.)

* Labor costs are calculated at .40¢/Hour.

Maximum and optimum production levels are achieved by concientious application of a 30-minute-per-day management program, supported by weekly and monthly activities (Table IV). Minimum production is a result of doing nothing.

Management Activities

<u>Activity</u>	<u>Daily</u>	<u>Weekly</u>	<u>Monthly</u>	<u>Action</u>
Feeding	X			Collection, Preparation as necessary.
Water Level Check	X			
Observation of Fish (Health, Resting, Spawning)	X			
Water Color Check	X			Correct
Predator Check	X			As Necessary
Check Intake and Outlet Drain Screens for Clogging		X		Clean as Necessary
Fertilization		X		Maintain
Clean Pond Banks		X		As Necessary
Repairs		X		As Necessary
Collect Fertilizer			X	Transport to Pond
Plan Following Month's Activities and Needs			X	As Perceived
Detailed Observation (Random Netting)			X	Corrective Measures As Required

B. Goals and Objectives

Goals: It is as yet too early to measure nutritional impact, or to measure income gains and increased employment. However, the following general observations can be made: (1) The rural families who are involved in the program do eat fish (from the fishponds or other sources) when it is available. With the exception of minor superstitions regarding fish consumption, all members of the family will eat fish prepared in a variety of ways. (2) Fish that is not consumed by the producer is readily marketable, either raw or prepared, to neighbors and others in the community or nearby communities. Do to the need to cull the ponds, fingerlings will be available

for sale after spawning season. (3) Some minor employment generation has ensued as more ponds are established in a given region; to harvest a 300 m² pond extra help is needed (2-3 persons), and non-landowners may find an income or food source through permanent services to several ponds; or as the demand for fertilizer (manure) increases an enterprising individual may offer to provide it to farmers, or groups of farmers may hire someone to provide for their needs. Also, prepared fish could be sold on certain days in various communities (market days) by either women or children.

Objectives:

1. Training

a. Extensionists - Two Dominican extensionists have been selected and have received training. They continue to receive training in the field through close supervision by the project coordinator, and will receive specialization courses in Brazil in late 1979 and 1980. Extensionist Juan de Jesús Santana is assigned to the Frontier Zone, in Loma de Cabrera; extensionist Frank Bello is assigned to the Southwest Zone, in San Juan de la Maguana. The other two extensionists who were identified were GODR employees; one has been sent to Israel at GODR expense for fish culture training, the other was transferred to an unrelated department in SEA and is yet to be replaced.

b. Participants - Four on-site training courses have been given, two in the Loma de Cabrera region, and two in the San Juan region. In addition, day-by-day direction is given to participants in the project

by the project coordinator and the extensionists. The Nigua experimental station has been used for demonstrations for various rural groups interested in fish handling.

Also, a general presentation was made at Las Haras Nacionales to 30 FENAC members from various areas of the country. It is expected that some FENAC member associations may request more detailed information in the near future.

c. Volunteer Promoters - Four volunteer promoters have been identified, trained, and are actively participating in the program: Merces Carmelo Espinal, Maello Tejada, and Papote Cruz in Loma de Cabrera, and Rev. William de León in San Juan de la Maguana.

Also, ten Peace Corps volunteers received a three-day course in fish culture, organized by a visiting expert from PC/Washington. The IFP coordinator participated in this course and will utilize the PCVs as dictated by need and their site location. Three PCVs will enter training in July (arrival September) for intensive fish culture training and will participate in the program.

2. Fish Pond Construction

To date, twelve ponds have been constructed in ten communities, covering a total of 4,748 m² and directly involving 92 participants, and a total of 623 people when all family members are included.

<u>Location of Pond/ Date Original Stocked</u>	<u>Size</u>	<u>No. of Partici- pants/Family</u>	<u>Projected Pro- duction/Cycle</u>
<u>Loma de Cabrera Zone</u>			
1. Rio Limpio #1 (*)	250 m ²	3/21	125 Lbs.
2. Rio Limpio #2 (*)	250 "	3/22	125 "
3. La Luisa 4/79	100 "	6/45	50 "
4. El Aguacate 1/79	900 "	33/266	450 "
5. Partido 4/79	450 "	4/25	225 "
6. Capotillo 9/78	440 "	6/29	220 "
7. Manuel Bueno #1-10/79	600 "	2/15	300 "
8. Manuel Bueno #2-10/79	600 "	4/28	300 "
<u>San Juan de la Maguana Zone</u>			
9. Maguana Abajo 5/79	210 m ²	7/24	105 Lbs.
10. Maguana al Medio 5/79	288 "	4/28	144 "
11. Maguana Arriba 5/79	180 "	3/20	90 "
12. Reboso 6/79	480 "	17/140	240 "
TOTAL	4,748 m ²	92/663	2,374 Lbs.

Harvest Cycle: 6-8 Months.

* As of this date, the Rio Limpio ponds have not been stocked.

NOTE: The wide variation in pond size is due to the fact that each site has unique characteristics. Factors that determine pond size are: (1) amount of land available, slope, and soil type; (2) amount of water available; (3) number of people involved; and (4) availability of heavy machinery.

3. Nutrition Education

To date, five 5-hour courses have been given in the nutrition component: two in the San Juan zone, with approximately 30 participants each; and three in the Loma de Cabrera zone, with approximately 25 participants each. These courses were prepared and presented by the three staff

nutritionists of SSID. Rural people were taught to clean, cook, and eat fish. Specific taboos were addressed, such as eating fish and drinking milk, or eating fish while sick with a cold.

C. Project Progress Criteria (As of May 1975)

	Amount/or Indicator	Date/Pro- jected Findings	Future Potential
1. Number Fingerlings Distributed	2,985	--	--
2. Lbs. Fish Harvested/ Cycle	255 lbs/440 m ² pond	8 mos. Stocked pond	2,374 lbs/ cycle (12 ponds)
3. Number Farmers with Family Participating	92/663	--	--
4. Number of Areas Pro- moted/Ponds Constructed	2/12	N/A	2/20
5. Number Farmers/Groups Weaned	Extensionists Visits Reduced to Courtesy and/or Emergencies	6/80	--
6. Amount of Fish Sold and Consumed	255 lbs.	Per Pond Cycle	2,374 lbs/ cycle (12 ponds)
7. Government Interest/ Support	Regional and National Contacts Made	12/79	--

Evidence to date, including acceptance of the program at the local level, participation in nutrition courses, interviews with recipients, and field observation indicates that fresh water fish is an acceptable addition to the diet of the rural poor. The fact that fish is not a typical item in diets in the rural target area was due to supply problems rather than cultural factors.

III. BUDGET

A detailed budget will be submitted by CWS in July 1979, after the first full year of project operation. AID advances through March 1979, totaled \$40,000; CWS contributions were \$26,700. The budget for the first year of the project was calculated at \$52,000 in AID funds, and \$31,500 in CWS funds.