

UNCLASSIFIED  
CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE  Inland Fisheries OPG			2. PROJECT NUMBER 517-0162	3. MISSION/AID/W OFFICE USAID/DR
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>86-01</u>	
A. First PRO-AG or Equivalent FY <u>82</u>	B. Final Obligation Expected FY <u>84</u>	C. Final Input Delivery FY <u>85</u>	<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
6. ESTIMATED PROJECT FUNDING			7. PERIOD COVERED BY EVALUATION	
A. Total \$ <u>746,545</u>			From (month/yr.) <u>04/82</u>	
B. U.S. \$ <u>276,000</u>			To (month/yr.) <u>11/85</u>	
			Date of Evaluation Review	

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., diagram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
This is the final evaluation of the project. The recommendations made are for the benefit of SSID in its continuing endeavors.	SSID	
1. Limit the number of farmers responsible for managing a pond to two.		
2. SSID should sell its fingerlings to recover production costs.	SSID	
3. Improve record keeping and compile data in more manageable form.	SSID/PC	

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<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.  Continue Project Without Change

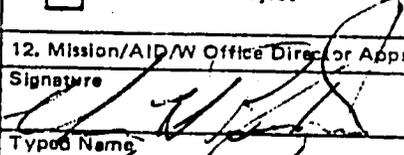
B.  Change Project Design and/or  Change Implementation Plan

C.  Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

PRG:RHEllert-Beck  
CRD:AEValdez

12. Mission/AID/W Office Director Approval

Signature 

Typed Name Henry H. Bassford

Date MAR 12 1986

## 1. SUMMARY

This is the final evaluation of the Inland Fisheries project, an OPG with SSID, to ascertain whether the project accomplished its stated purpose to expand hatcheries, establish a system of information gathering and analysis, and promote improved communication and coordination among participating agencies in the development of aquaculture. After visiting the project sites in the Loma de Cabrera area, the evaluation team made three recommendations for SSID to entertain:

- a. To limit the number of farmers responsible for managing a pond to two, because larger numbers dilute the responsibilities and pond management suffers with a resulting loss in production.
- b. SSID should sell its fingerlings to participating farmers rather than distribute them free of charge.
- c. SSID and the PCV should improve their record keeping and compile the raw data in a more manageable form so that the data can be analyzed and conclusions drawn.

The conclusions of the evaluation are that the project proved that fish production can be a viable activity in an area where fish has not traditionally been a regular item in the diet of the population. Fish now is readily consumed and production is expanding, albeit within a limited area.

## 2. SCOPE OF WORK AND METHODOLOGY

This is the final evaluation of a \$276,000 OPG begun in April 1982 and implemented by the Servicio Social de Iglesias Dominicanas (SSID). The project was evaluated twice by Auburn University Professor Ronald Phelps in January and July 1983. The latter evaluation was also an economic analysis of the project. For the final evaluation, therefore, the Mission decided to do an internal evaluation with a scope of work limited to determine whether the project accomplished its stated purpose, which was: (a) to expand hatchery facilities, (b) establish a system of information gathering and analysis, and (c) promote improved communication and coordination among participating agencies in the development of aquaculture.

The methodology employed was to review the previous evaluations, noting the recommendations made, and then visit the project sites and interview farmers. Among the questions asked were: How many persons benefit from the fish harvest; how often is fish consumed; how much money was earned from the sale of fish; how the project has impacted on the life of the family?

This OPG is a small scale pilot activity to test whether farmers would be willing to convert a part of their land to fish ponds, and whether the introduction of fish in the local diet is socially acceptable. The results of the evaluation reveal that the answer is positive on both counts. The significance of this evaluation for the Mission strategy is that the activity,

in its limited scope, furthers agricultural diversification and promotes private enterprise fish cultivation.

### 3. EVALUATION TEAM

The evaluation team was composed of Mr. Juan Santana, Project Coordinator, SSID; Mr. Arthur Valdez, Project Officer, USAID/DR; and Mr. Rodolphe Ellert-Beck, Evaluation Officer, USAID/DR. At the project site, the team was joined by Mr. Carmelo Espinal, SSID Promotor and Extensionist, and Ms. Susan Miller and Mr. Mark Powers, Peace Corps Volunteers assigned to the project. Ms. Miller has been with the project in Loma de Cabrera for over three years, and Mr. Powers has recently been assigned to the project in the San Juan de la Maguana area, but joined the team for the evaluation in Loma de Cabrera.

### 4. BRIEF HISTORY AND EVALUATION RESULTS

Mr. Carmelo Espinal built his first pond in 1978 with 5 associates. He now owns 9 ponds and SSID has added 8 others on his land for brood stock, experiments, fingerling production and holding ponds. To date, there are 47 ponds in the Loma de Cabrera area, and 29 ponds in the area of San Juan de la Maguana. The ponds are stocked twice a year with new fingerlings, using mostly Tilapia Nilotica, or a hybrid Tilapia, and Carp, at a proportion of 3 Tilapias for 1 Carp. The ponds are small, varying in size from about 250 m<sup>2</sup> to 950 m<sup>2</sup>.

Mr. Carmelo Espinal, as the SSID Extensionist, assists the farmers with the pond construction and water supply. SSID provides the tractor and the PVC pipes, and Mr. Espinal helps in the design and construction of small dams or weirs to supply the ponds with fresh water. Farmers provide the labor for the canals and other works. Once completed, the ponds are stocked with fingerlings provided by Mr. Espinal, and the farmers are taught how to manage the ponds, how to fertilize the water, and how to feed the fish. Mr. Espinal visits the farmers regularly, on a weekly basis those living nearest to El Capotillo where Mr. Espinal's farm is, and at least once per month to those farther out.

The team visited 34 pond sites and interviewed 10 farmers. Besides Carmelo who owns 9 and operates 8 additional ponds for SSID, only 4 other farmers owned 3 or 4 ponds, whereas the other farmers shared only 1 pond with other farm families.

It was evident that the quality of management of the ponds decreased with an increase in the number of owners; as the responsibilities are dissipated, there is less follow-through and the output decreases.

**RECOMMENDATION:** That the pond exploitation be limited to a maximum of two farmers. Optimally, each farmer ought to manage his own pond.

Most farmers consume their own production and eat fish on a weekly basis. Several, particularly those who manage more than 1 pond, are able to sell a good portion of their production. Ponds are harvested twice a year, and the fish weigh about 1/2 lb. Under good pond management, they can produce 1/2 lb. fish within 4 months. Fish are fed afrecho, a mixture of rice bran and dried blood, which farmers buy for RD\$14.50 per quintal (hundred-weight). The fish are sold at RD\$1.00 or RD\$1.25 a pound, and some farmers can produce over 380 lbs. in one harvest. Many are thus able to supplement their income. However, among the poorer farmers with large families of 11 or even 14 children, most of the production is consumed by the family. For those who share a pond, there are as many as 52 persons sharing in the pond production.

Once the pond is harvested, SSID provides the fingerlings to restock the pond. The evaluators suggested that SSID charge for the fingerlings, and this becomes the most important recommendation of the evaluation.

RECOMMENDATION: That after the second or third harvest, fingerlings be sold to farmers at a price which would cover SSID's production costs.

The two recommendations above result from observations of field conditions. But the objective of the evaluation goes beyond physical implementation problems. As stated in paragraph 2 above, the purpose of the project was: (a) to expand hatchery facilities, (b) establish a system of information gathering and analysis, and (c) promote improved communication and coordination among participating agencies.

a. For the first objective, with the development of the 8 SSID ponds and 3 ponds operated by FUDECO for the production of fingerlings, hatcheries have expanded to satisfy the demand of the fish farmers. Incidentally, there are now 5 farmers managing 2 or more ponds, and are now self-sufficient in that they produce their own fingerlings.

b. The second objective is only partially met. Although records are kept on each farmer on the dates the ponds are stocked, date and amount of fish harvested, amount sold, the data is on handwritten sheets and there is no compilation of data and no sign of any analytical work done with this raw data.

RECOMMENDATION: That a revised format be used to record and tabulate the harvesting data to enable analysis and drawing conclusions and recommendations.

To disseminate information, SSID, with Peace Corps participation, sponsored a conference in which some 16 agencies, both government as well as private voluntary organizations, participated.

c. In regard to the third objective, the Peace Corps continues to participate actively in the project by providing two volunteers.

Cooperation Agreements were signed with INDOTEC and the relationship was maintained until 1984. INDOTEC made available its laboratory facilities, biologists, and four 100 m<sup>2</sup> ponds for experimenting with Tilapia and Carp and water quality. But after 1984, INDOTEC dropped out of the program.

The relationship with FUDECO continues to be positive. Together with FUDECO, SSID built three 300 m<sup>2</sup> ponds to experiment with feed and fertilizer and fingerling production. FUDECO held a total of 7 training courses through 1984 with a participation of 270 fish farmers. Among these are 5 farmers who act as extension agents and are now able to produce fish independently. The courses covered the following topics: sexing, feeding, fertilizing, use of fish in daily diet, demonstrations made by nutritionist, yield and pond management, smoking and curing fish.

#### 5. UNANTICIPATED RESULTS

One gratifying result of this project is that a group of 20 university students, majoring in Biology and Pisciculture (some are the sons of participating farmers in the project), have decided to band together and exploit commercially some 60 ponds which they intend to build and manage.

#### 6. LESSONS LEARNED

The project has proven that with proper motivation, farmers are willing to convert some of their land into fish ponds and engage in fish raising to improve their own diet and to increase their cash earnings.

Since this is a small PVO activity in a developing country, burdening the implementation with coordination among 4 distinct agencies may be too lofty a goal. Although INDOTEC collaborated in the early stages, it limited its activities to its campus in the capital, but was not involved at the project site in the field. Similarly, the degree of involvement of FUDECO seems to be on the wane, since no training occurred in 1985, although FUDECO continues to maintain the fish ponds and to produce fingerlings for distribution.

Although the AID grant is terminated, activities are continuing with financing from Norway.