

AIRGRAM

DEPARTMENT OF STATE

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5320038-8

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TO - AID/W AID TO A-122

PD-AAB-451-81

FROM - Amerbassy/Kingston

SUBJECT - Inland Fisheries Development (532-0038) Annual Evaluation

REFERENCE - Kingston A-91

Transmitted herewith is the PES for subject evaluation.

Lawrence



Attachment: As stated *attach* to be run w/airgram

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CLASSIFIED BY	OFFICE	FILE NO.	DATE	APPROVED BY
NEO:KORille,iv	NEO	254	4/9/79	Donor M. Lien, Mission Dir
NEO:KORille,iv	NEO	PROG:Johnson		

CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

Inland Fisheries Development

2. PROJECT NUMBER 532-0038	3. MISSION/AID/W OFFICE USAID/Jamaica
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) 79-3	
<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	

5. PROJECT IMPLEMENTATION DATES	6. ESTIMATED PROJECT FUNDING	7. PERIOD COVERED BY EVALUATION									
<table border="1"> <tr> <th>Start</th> <th>Final</th> <th>Final</th> </tr> <tr> <td>1976</td> <td>78</td> <td>79</td> </tr> <tr> <td>Commitment</td> <td>Obligation Expected</td> <td>Input Delivery</td> </tr> </table>	Start	Final	Final	1976	78	79	Commitment	Obligation Expected	Input Delivery	A. Total \$ 2,009,000 B. U.S. \$ 457,000	From (month/yr.) November 1976 To (month/yr.) November 1978 Date of Evaluation Review
Start	Final	Final									
1976	78	79									
Commitment	Obligation Expected	Input Delivery									

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., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Decision on follow-on project to be made.	USAID	6/79
2. Analysis should be completed on: <ul style="list-style-type: none"> a) cost/yield ratios for various sizes of ponds and various categories of farmers. b) the economic implications of fish farming based on in-country capabilities and imported feeds and fertilizers. 	MOA	5/79
3. A second production and research facility in the western region should be approved and funded.	MOA	4/79
4. Arrangements should be made to fill the gap caused by the long-term training participant who did not return.	MOA	4/79
5. Consideration should be given to the extent to which a follow-on project could be made to serve Caribbean regional development purposes.	USAID/MOA	5/79

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS	10. ALTERNATIVE DECISIONS ON FUTURE OF 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	A. <input checked="" type="checkbox"/> Continue Project Without Change B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan C. <input type="checkbox"/> Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)	12. Mission/AID/W Office Director Approval
Dr. Kenneth C. Ellis, <i>KE</i> Asst. Rural Development Officer Frank Ross, Director of Inland Fisheries--MOA Dr. Kenneth Randolph, Fisheries Advisor--Auburn University Henry P. Johnson, Program Officer <i>HJ</i>	Signature <i>Donor M. Lion</i> Typed Name DONOR M. LION Date 4/10/79

13. Summary

In the two years of project operation, better than satisfactory progress has been made in meeting most of the goals set out in the Project Paper. This is especially true in the area of infra-structure development. The Mitchell Town facility, for example, has not only been renovated, but doubled in size. At Twickenham Park, in addition to a general renovation, construction is beginning on a fourteen-man dormitory/training facility and additional space for research.

The Government of Jamaica (GOJ) has provided adequate staff for the project. At the end of year two, the project staff consists of 44 people on board; with an additional four approved for hiring--two in February and two in June.

Short-term training goals have been exceeded; one additional person has been sent to the U.S. to study aquaculture. Long-term training goals may not be met if one of the participants does not return as is now suspected. This could delay expansion of the project as there may not be a trained manager to take over the proposed new facility in the Western Region.

A formal course in aquaculture has been introduced at the Jamaica School of Agriculture (JSA). The course is taught by project personnel and provides additional in-country training in management and production.

The island-wide pond survey has been completed and maximum use is being made of indigenous ponds wherever possible. Fifteen of these indigenous ponds figure into the 42 farm ponds now being used for research and development to determine cost/yield ratios for fish production under field conditions. The capacity for fingerling production at Mitchell Town has been nearly doubled. Over 500,000 fingerlings were produced in this facility during the past year and another 500,000 were produced at Twickenham Park.

An additional fingerling production research facility in the Western Region was not approved this year by the GOJ. With the Government's current fiscal crisis, officials did not feel that they could purchase the site and staff it properly. This has delayed expansion of the project to other areas of the island which would profit from an aquaculture program. However, looking

at the decision in retrospect and taking into consideration the problem with the return of the long-term training participants (Section 16) it appears that the inauguration of a new facility in 1978 would have been premature. This new facility has been included in the 1979/80 budget of the GOJ. If the long-term participant does not return, there will be difficulties in finding a qualified manager.

Three new species of fresh-water fish were recommended by Auburn University as having good potential for integration with the existing Tilapia species to increase yields. Two of these, the grass carp and the Nile perch, have been introduced. The third species, the common carp, will be introduced in early Spring 1979.

14. Evaluation

This is the second annual project evaluation. Its purpose is to measure progress against project goals and intended outputs and to determine if changes might be needed in implementation of the project.

Discussions were held with the Permanent Secretary of the Ministry of Agriculture and the Director of the Production Unit of the same Ministry. A thorough review of all project documents and monthly reports was made as well as several visits to the project site.

15. External Factors

As a result of increased interest on the part of the GOJ in expediting fresh-water fish production, the Inland Fisheries Project was moved from the Marine Fisheries Division into the Production Unit of the Ministry of Agriculture. This move has proved very beneficial for the Project. Crop Lien funds are now available to small farmers interested in building and stocking fish ponds. The payback period for crop lien funds borrowed by these farmers has been extended from the normal two-year period to five years.

Since the extension service is also included in the portfolio of responsibilities of the Production Unit, the Project has benefited from a closer association with extension agents who identify farmers for participation in the

Project and assist Project staff in monitoring day-to-day management and data collection from small farmers' ponds. Additionally, the move to the Production Unit has facilitated hiring the personnel and has provided the project with the administrative back-up support within the GOJ which it needs so badly.

16. Inputs

US: The project paper as amended calls for the USAID to provide four man-years of technical assistance in the field of fresh-water fisheries, nine-person months of short-term advisory services, three persons trained at the graduate level in the U.S. in aquaculture production and one man-year of short-term training at a US or third country institution. In addition, USAID was to supply six vehicles to maintain a fisheries extension program and sufficient commodities to equip a fisheries research laboratory.

Provision of a second long-term advisor in extension was delayed due to delays arising from the Congressional Notification process and this caused a four- to six-month delay in beginning the intensified research/development activities at the field level.

GOJ: The GOJ is to provide funds for the renovation of Twickenham Park and Mitchell Town and new construction of fish storage areas, ponds, research facilities and managers' residences. The Government is also to provide salaries for an increased staff and administrative and operating support.

There were some problems early in the year because the Inland Fisheries budget was more than halved due to the GOJ austerity program. However, after moving the project to the Production Unit, the budget shortfall was made up using counterpart funds. New construction at Twickenham Park and Mitchell Town has exceeded that projected in the Project Paper. Staffing is proceeding satisfactorily.

17. Outputs

(a) Personnel trained in Inland Fisheries Development: Two participants have been sent to the U.S. for advanced degree training. One did not return upon finishing his Master's degree, the other will return in May or June of 1979. The third participant was to leave upon the return of the first participant. Since this man has not returned, the third man's training has been postponed. The project would be left with only U.S. Advisors in management positions if the third person were to be sent out for training at this time.

It is extremely important that the third man receives advanced training and every effort should be made to send him out as soon as the second man returns.

In addition to the two long-term participants, a total of four short-term participants will receive training in aquaculture during the life of the project. This is one more trained person than outlined in the project paper. Two of the short-term participants have returned to the Project and the last two will leave in March 1979.

An additional input into training has come about through the efforts of the long-term advisor. A course in fresh-water fisheries management and production has been formalized within the Jamaica School of Agriculture taught by project staff. Short-term training courses at JSA were also offered and taught by project personnel.

(b) Survey of ponds completed and extension program operational. An island-wide survey of indigenous ponds has been completed. An extension program which utilizes these ponds whenever possible has been initiated. Extension agents receive in-country training by the Project staff and work closely with the Project to identify farmers interested in fresh-water fisheries.

The delay in Congressional Notification for the long-term advisor in aquaculture extension has caused a delay in implementation of the extension program. The move from Marine Fisheries to the Production Unit has provided a much stronger working relation with agricultural extension which has helped to off-set some of the time lost by the delay in the arrival of the extension advisor. The advisor is now on board and the Project is making every effort to make up lost time.

(c) Physical facilities of Twickenham Park upgraded. The facilities at Twickenham Park have been upgraded by construction of several new storage and research labs, construction of new ponds, renovation of old ponds, renovation of the water delivery and drainage system, and the beginning of construction of a dormitory-classroom facility, a manager's residence, and additional office space. Construction of the dormitory-classroom facility and additional research labs are GOJ contributions beyond what was considered necessary in the project paper.

(d) Production capacity expanded at Mitchell Town and at an additional facility--Forris Cross

The renovation of the Mitchell Town facility is complete and it is in full production. The emphasis at Mitchell Town has been on commercial food fish production and applied research, and fingerling production. During the second year of the Project, 75,500 pounds of food fish were grown at Mitchell Town and marketed through AMC (J\$45,000 were returned to the Ministry of Finance from sales of these fish). In addition over 500,000 fingerlings were produced at this facility.

The GOJ has approved additional funds to construct equipment storage rooms and to expand the facility by forty-four acres for fingerling production to meet the increasing demand from the private sector. A manager's residence is also under construction at this facility.

A second inland fisheries facility was not budgeted for in the GOJ 78/79 fiscal year. The reason being that the Government did not have sufficient money to purchase the facility, renovate it and pay salaries for the needed staff. It is hoped that this facility will be approved in the GOJ FY79/80 budget which begins in April 1979.

The lack of this additional facility has not yet seriously affected the Inland Fisheries Project. However, in recent months there has been an increasing demand for fingerlings by small and medium sized farmers, private companies and government sponsored programs. It is clear that an additional facility will be necessary in the near future to keep up with this increasing demand.

(e) Research Conducted in Research/Development Areas

The project amendment provided for US\$15,000 to fund research/development activities to determine the economic implications of fish farming based on small farmer capabilities, small and medium sized pond cost/yield ratios, and farmer willingness to accept aquaculture as a means of improving their income and nutritional level. It is felt that this data is essential to the decision on a follow-on project for Fish Production.

The delay in arrival of the extension advisor has caused the project to be behind schedule in collecting this data. At present there are 42 small and

medium sized farmers participating in research/extension activities. While the quantity of data available to make a decision on the follow-on project will not be as great as was planned, it appears that the quality will be excellent and sufficient to make the decision.

(f) New Species Recommendations Made:

Auburn University has made a recommendation that three new fish species be imported which would expand the production potential for fresh-water fisheries in Jamaica. The species are Tilapia nilotica, Ctenpharyngodon idellus, and Cyprinus carpio. The first two T. nilotica and C. idellus have been introduced and are presently in grow-out ponds at Twickenham Park. The third species C. carpio will be introduced in the Spring of 1979.

18. Purposes/Goals

The Inland Fisheries Project goal is to help the Government of Jamaica (GOJ) meet its objectives to increase in-country protein production, increase participating farmers income, improve the balance of payments by reducing fish imports, improve resource utilization and to increase employment. The Project is to help meet these goals by creating within the Ministry of Agriculture the institutional capability and technical expertise to design and implement an inland fisheries program.

The limited data available on cost/yield ratios from small farmers ponds indicate that aquaculture integrated with conventional agriculture can increase incomes and protein production. As the ^{research/extension} component of the project needs the greatest amount of effort to collect reliable data, project personnel will concentrate their efforts in this area for the remainder of the project life.

Improvement of the balance of payments position and increased employment can only be assessed sometime in the future when a sizeable number of farmers are practicing aquaculture.

The project has achieved its purpose to create within the Ministry of Agriculture the institutional capability to support a fresh-water fisheries program. There are two facilities operational for research and fingerling production. Over one million fingerlings have been produced and 42 small and medium sized farmers are participating in the project.

The technical expertise to design and implement a fresh-water fisheries program