

PD-AAM-823

ISN 29745

Attachment #1

9311306/99

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT AUTHORIZATION AND REQUEST
FOR ALLOTMENT OF FUNDS PART I

1. TRANSACTION CODE

A ADD
 C CHANGE
 D. DELETE

PAF

2. DOCUMENT CODE
5

3. COUNTRY ENTITY DS/AGR/RNR

Type g. Collaborative Research Support Program

4. DOCUMENT REVISION NUMBER

5. PROJECT NUMBER (7 digits)

931-1306

6. BUREAU/OFFICE

A. SYMBOL B. CODE
DSB 10

7. PROJECT TITLE (Maximum 40 characters)

CRSP Planning - Fisheries/Aquaculture

8. PROJECT ACTION TAKEN

APPROVAL
DECISION

A APPROVED
 U DISAPPROVED
 DC DEAUTHORIZED

9. EST. PERIOD OF IMPLEMENTATION (for 15 month extension)

YRS. 0 1
QTRS 0 1

10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		eThru FY 9/30/79		M. 1st FY 80		K. 2nd FY 81	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) ARDN	141 . I	963	---	288	---	420	---	0	---
(2)									
(3)									
(4)									
TOTALS				288	---	420	---	0	---

A. APPROPRIATION	N. 3rd FY 82		O. 4th FY 83		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED	
	D. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	ENTER APPROPRIATE CODE(S): 1. LIFE OF PROJECT 2. INCREMENTAL LIFE OF PROJECT	GRANT NO.
(1) ARDN	0	---	0	---	708	---		2
(2)								
(3)								
(4)								
TOTALS	0	---	0	---	708	---		

C. PROJECT FUNDING AUTHORIZED THRU
FY 8 0

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000):

A. APPROPRIATION	B. ALLOTMENT REQUEST NO.	
	C. GRANT	D. LOAN
(1) NA		
(2)		
(3)		
(4)		
TOTALS		

13. FUNDS RESERVED FOR ALLOTMENT

TYPED NAME (Char, SER, FM, FSD)

SIGNATURE

DATE

14. SOURCE/ORIGIN OF GOODS AND SERVICES

000 941 LOCAL OTHER

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

The amendment authorizes \$420,000 for developing a definitive plan for a CRSP in Fisheries/Aquaculture. This planning activity will take approximately 15 months from the finalization of a planning grant.

DS/PO OFFICIAL FILE

Best Available Document


FOR RRC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE	18. ACTION REFERENCE (Optional)	ACTION REFERENCE
		MM DD YY		MM DD YY

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS

PART II

ENTITY: Bureau for Development Support
PROJECT: CRSP Planning - Fisheries/Aquaculture
PROJECT NUMBER: 931-1306

I hereby authorize \$420,000 in FY 80 grant funds to develop a definitive plan for a Collaborative Research Support Program (CRSP) in Aquaculture. The management entity for developing this plan will be Oregon State University.


Tony Babb
Deputy Assistant Administrator
for Food and Nutrition
Bureau for Development Support
Date: 8/26/80

References:

1. Action Memo: Fiester to Babb (attached)
2. Planning Grant Proposal with scope of work included (attached)
3. Project Budget (attached)

Clearances:

DS/AGR/RNR, C. Breitenbach	<u>CS</u>	date	<u>8/19/80</u>
DS/AGR/RNR, J. Malcolm	<u>File</u>	date	<u>7/15/80</u>
DS/AGR, M. Mozynski	<u>AS for Admin</u>	date	<u>8/18/80</u>
DS/AGR, D. Fiester	<u>AS for Admin</u>	date	<u>8/19/80</u>
DS/PO, A. Silver	<u>ade</u>	date	<u>8/26/80</u>
DS/PO, B. Chapnick	<u>BC</u>	date	<u>8/28</u>

August 18, 1980

ACTION MEMORANDUM FOR THE DEPUTY ASSISTANT ADMINISTRATOR FOR FOOD AND NUTRITION
BUREAU FOR DEVELOPMENT SUPPORT

FROM: DS/AGR, Donald Fiester *Donald H. Fiester*
SUBJECT: Aquaculture Planning Grant (Project No. 931-1306)

Problem: Your authorization is required for a \$420,000 planning grant to Oregon State University as the administrative entity for Aquaculture (Pond Culture) Collaborative Research Planning.

Discussion: At a June 10, 1980 meeting the JRC endorsed a CRSP proposal entitled, "Efficiency of Pond Culture Systems: Principals and Practices." The proposal had been prepared by Auburn University, the University of California at Davis, and the Consortium for International Fisheries and Aquaculture (CIFAD) led by Oregon State University. These institutions have been duly approved by BIFAD as the grantees to receive a Collaborative Research Support Program Grant in Aquaculture.

After an in depth consideration of the June 10 CRSP proposal the TPCA, in joint session with BIFAD, resolved not to move ahead at this time with a CRSP. They decided instead to provide Auburn University, the University of California at Davis and CIFAD a planning grant which would permit them to complete the preparatory elements of their proposal, phase I and part of phase II of the CRSP. These elements include first a state-of-the-art study by which to determine the most critical gaps in tropical pond fish production in order to decide where the greatest pay offs in research may be, and second a series of overseas visits to determine in which of the developing countries that have expressed an interest in collaborating with the CRSP, there exists good prospects for achieving those pay offs. The overseas travel would include the negotiating of provisional administrative agreements with developing LDC institutions proposed for participation. Costs related to CRSP preparation are also included in the grant.

An initial planning grant awarded to Resources Development Associates for fisheries covered the entire field of pond culture and fisheries. The resultant publication, "Fisheries and Aquaculture: Collaborative Research in the Developing Countries: A Priority Planning Approach," is of a general nature and does not specifically deal with the elements mentioned above.

Recommendation: That you approve a fifteen month grant of \$420,000 to Oregon State University for the purpose of planning an Aquaculture Collaborative Research Program by signing the attached PAF.

Attachment: a/s

CLEARANCES:

DS/AGR/RNR, C. Breitenbach	<i>CA</i>	date <u>8/18/80</u>	DS/PO, A. Silver	<i>ade</i>	date <u>8/21/80</u>
DS/AGR/RNR, J. Malcolm	<i>JM</i>	date <u>8/18/80</u>	DS/PO, B. Che nick	<i>bc</i>	date <u>9/21</u>
DS/AGR, M. Mozynski	<i>MK</i>	date <u>8/19/80</u>			
DS/AGR, D. Fiester	<i>DF</i>	date <u>8/19/80</u>			

PROPOSAL
FOR
PLANNING GRANT
FOR THE
COLLABORATIVE RESEARCH SUPPORT PROGRAM
"EFFICIENCY OF POND CULTURE SYSTEMS: PRINCIPALS AND PRACTICES"

i. Background

Under Contract No. AID/afr-C-1135-12 there was prepared for the United States Agency for International Development (AID) and the Joint Research Committee (JRC) of the Board for International Food and Agricultural Development (BIFAD), a planning document on Fisheries and Aquaculture. The contractor, Resources Development Associates (RDA), in their August 1978 report titled, "Fisheries and Aquaculture Collaborative Research in the Developing Countries: A Priority Planning Approach," provides a broad based set of recommendations in regard to the needs of the LDCs in two all-inclusive fields, i.e., captive fisheries and fish farming.

In the contractor's words, "This report identifies and defines development assistance needs in fisheries and aquaculture as seen by the developing countries themselves, identifies that set of needs that might best be addressed through Title XII Collaborative Research, establishes relative priorities, and presents budgetary requirements for their accomplishment. An inventory of United States university capability to address these items is presented, together with an inventory of LDC institutions active in these fields and those recommended for consideration as partners in collaborative research."

The RDA report identifies three predominant areas of fisheries research which are considered to offer superior prospects for development assistance in the LDCs. In order of their precedence these are aquaculture with emphasis on pond culture systems, stock assessment, and post-harvest fish utilization. Upon completion of the RDA report these areas of fisheries research were endorsed by the JRC and subsequently recommended as CRSP activities by the BIFAD.

The contractor's report performed a valuable function in so far as it was able to go. What it failed to do was to provide adequate information to complete the planning necessary to prepare finite CRSPs which meet AID's requirements for CRSP grant approval. That failure has now become apparent.

Early in July of 1979 requests for expressions of interest in the aquaculture CRSP were sent out to all eligible Title XII institutions and three were subsequently selected to receive the aquaculture grant scheduled for OYB 1980 funding. They are Auburn University, the University of California at Davis and the Consortium for International Fisheries and Aquaculture Development (CIFAD) of which Oregon State University is the lead University.

At a February 22, 1980 meeting in Washington, representatives of the three selected institutions got together with JRC and AID officials. Oregon State University was selected as the management entity under the CRSP and plans were made to jointly write a CRSP proposal.

Soon after the three institutions began their joint effort to write a detailed CRSP proposal, it was quite clear that a number of basic elements required for a finite CRSP still needed to be put into place. The RDA report does not provide a state-of-the-art study with which to evaluate what is known about pond dynamics under different pond culture systems. As a consequence the cooperating institutions found that they would have to determine what the most serious information gaps in pond systems were and prioritize them, if they were to detail the different aspects of the research to be accomplished under the CRSP and the relative inputs to be expended on each.

Although the RDA report provides an inventory of the LDC countries and institutions active in aquaculture with which the US institutions might collaborate, it did not determine in each case whether the USAID strategy in the country was amenable to such collaboration, nor whether the specific institutions wished to and were capable of such participation. The CRSP working group found a whole area of planning was still required; one which might only be accomplished by visiting the sites where the AID mission and the specific host country aquaculture institution were interested in collaboration. It would encompass the selection of a limited group of such institutions and the development of mutual working agreements with each including a statement of the research to be accomplished and an accounting of the contributions to be made in kind by each contributor, i.e., the USAID or Embassy, the host government and the specified local institution, the Collaborative Research Support Program and as possible by other interested donors. Finally it would provide a scope of work for each such selected foreign institution.

How to write a CRSP proposal which would confront the absence of the above cited information presented a serious problem. The solution ultimately proposed that of making available additional grant planning funds, was not considered. This was because an initial planning grant had already been made to RDA, and when Auburn University, the University of California at Davis and CIFAD were subsequently selected they were considered implementing agencies and accordingly were assigned the responsibility of writing a CRSP proposal.

The problem was posed by the university representatives, however, each time they were in Washington while they were writing the CRSP. They discussed the matter with JRC and BIFAD officers and with the Fisheries Sub-Committee of the TPCA and it was agreed that the CRSP should be written in phased stages, the first phase to include that portion of the initial planning which still had not been accomplished. In fact such a CRSP project proposal was prepared, cleared by each of the members of the Fisheries Sub-Committee of the TPCA and endorsed by the JRC at its June 10, 1980 session.

Due to a failure in communication the process progressed along to its conclusion without the universities' representatives being advised, a policy had previously been agreed to in AID that it would withhold its approval of CRSPs until they had satisfactorily completed all the necessary planning requirements related

to the research program. Accordingly the BIFAD agreed that Phase I of the program proposal should be resubmitted for funding as a planning grant. That is the purpose of the present document.

II. Purpose

The purpose of the planning grant will be to plan in detail those aspects of the aquaculture CRSP which because of its broad scope were not included in the Resources Development Associates publication, "Fisheries and Aquaculture: A Priority Planning Approach." The work is to lead to an organizational foundation upon which all aspects of a five-year aquaculture CRSP program are sufficiently planned in detail so that an inclusive CRSP proposal can be prepared. Specifically the grant shall be used to define those gaps in pond culture information where research is likely to quickly produce substantial economic increases in fish production for the LDCs. It is to select and, in anticipation of CRSP approval, arrange satisfactory agreements with those institutions which will be involved with CRSP activities overseas. Those aspects which refer to food supply, farm income distribution and other socio-economic phases of fish farming shall be addressed as they relate to the choice of any overseas Collaborative Agency.

The problems addressed should be restricted to those which are directly related to the Aquaculture CRSP which Auburn University, the University of California at Davis and CIFAD were selected to implement. Because the field of fisheries is very extensive compared to that of pond culture the planning aspects covered in the present instance shall be restricted to those which are discussed under the following scope of work.

III. Scope of Work

A. Overview

The first requirement in planning the pond culture CRSP under the present planning grant will be to determine the more serious constraints limiting fish production in the developing countries in each of four basic types of pond culture systems listed below under the detailed scope of work.

The specific topics to be studied will be determined from a state-of-the-art study to be carried out as parts of step one. The study will be structured so as to determine the constraints which are now inhibiting pond production, under what conditions they occur and the information available or needed to relieve those constraints. Included as a result of the state-of-the-art study, AID will require a summary of the constraints and their listing in order of relative priority. The listing is to be compiled on an acceptable basis of economic analysis and benefit cost calculation. It should take into account those socio-cultural factors which may ultimately provide the benefits to the rural poor.

The second requirement under this grant will be to visit and identify the institutions and principal investigators who will conduct the research and the developing countries where such research shall take place. DS/AGR/RNR has already cabled the AID Missions for an expression of interest in those countries where the RDA report identified host country institutions with a potential for participating in the pond culture research. Now, on the basis of overseas visits to those countries in which the USAID or Embassy has replied favorably, the implementing agencies will

select up to five agencies with whom they will collaborate. AID will require that two criteria be considered in the selection of the overseas institutions chosen as collaborators. These are (1) the institution's relative potential for contributing to the overall purpose of the research and (2) an economic analysis of the potential benefit that the institution's inclusion may have to the country where it is located and to the region as a whole. It is expected that administrative agreements will be formalized and a scope of work developed with each foreign institution recommended so that upon project approval the research can be initiated without delay as soon as an initial release of funds has been made.

Finally at the conclusion of the planning cycle, a period estimated to require nine months of a fifteen month grant, the participating US institutions will submit an updated CRSP Grant Proposal for Aquaculture through JRC, BIFAD and AID. It shall contain the detailed project specifications which were not available when the initial proposal was presented to the June 10, 1980 JRC meeting. Throughout the process Oregon State University shall, in its role as the administrative entity, maintain close liaison with AID through the project manager in DS/AGR/RNR and with BIFAD through JRC. Formal AID approval shall be required for all foreign travel and this will be granted only after prior mission clearance has been obtained by the project manager from each country to be visited.

B. Detailed

The purpose of this scope of work is to provide Auburn University, the University of California at Davis and the Consortium for International Fisheries and Aquaculture Development (CIFAD), in their capacity as the implementing agencies for a proposed aquaculture CRSP, a planning grant by which to effect those aspects of a research activity preliminary to CRSP approval. Oregon State University, the lead institution in CIFAD will also serve as the management entity for the planning grant. Included are (1) a state-of-the-art study required to determine specific gaps in the available information most in need of research, (2) overseas site visits for the purpose of assisting the US implementing agencies to select potential collaborating institutions in the developing countries, arrange administrative agreements with the selected collaborating agencies and to prepare a proposed sub-scope of work with each institution so selected, and (3) prepare an updated, detailed CRSP proposal of a breadth not possible at the June 10, 1980 JRC meeting.

1. Identification of constraints to increasing fish production under each of the four basic pond culture systems most practiced in the IIEs.

Four basic pond culture systems have been chosen for research under the proposed Aquaculture CRSP. They are:

- (1) Small, low-intensity tropical pond systems characterized by limited external inputs of feeds or fertilizers.
- (2) Cooler water (15° - 25°C) tropical ponds at minimum high elevations.
- (3) Brackish water and hypersaline ponds, including those in tropical mangrove zones.

(4) Higher intensity tropical pond systems, characterized by high external inputs of feeds or fertilizers.

Though observations under tropical conditions have indicated that enormous differences in fish production are being obtained under differing conditions in each of those systems, the information is lacking on what the constraints are which limit such production, under what conditions they occur and what their relative importance may be to the rural fish farmer. Conclusions are needed on the types of research most likely to resolve these constraints. The critical restraints thus identified will be assigned general levels of priority and then reordered into groups of similar problems which may be ameliorated through a logical research program or elements of such a program. The elements of the program may be assigned comparative importance on the basis of such criteria as numbers of people affected, countries involved, areas to which results would be applicable, cost of the research, potential value or physical increase in food production, time required to obtain significant results, time to develop useful modifications for increased income and/or yield benefits in one or more of the above mentioned systems and time before fish farmers might be likely to make use of the improved management procedures. The appropriateness of the research under Title XII support must also be assessed. In this respect the question should be answered: "Is the research of a type which can well be achieved with host country institutions under the collaborative mode or might it better be conducted in the US under another type program?" The question should be addressed: "Is the research more appropriate for some other bilateral agency or perhaps one of the multi-lateral programs such as FAO, ICLARM or SEAFDEC working independently in the developing countries?"

The information required to resolve the above questions is for the most part either not assembled or else not yet available. A state-of-the-art study is therefore to be funded under this planning grant to facilitate the accumulation of as much information on pond culture systems as possible under a single system. This system, it is anticipated, will be incorporated as part of the ongoing CRSP after CRSP approval. There, it would continue to be updated as new information becomes available from pond culture research under the CRSP, or from other sources.

Material for the state-of-the-art study will be solicited from the FAO through its aquaculture CODEX system, from the personal experiences of other persons involved in pond culture as well as by correspondence with other institutions, both US and foreign, participating in similar activities. During their visits to regional or national fisheries institutions overseas the staff under the present grant will take into account the problems faced by these institutions and what they have learned.

2. Overseas site visits to select developing country collaborative institutions and plan their participation.

The principal portion of this planning grant shall be utilized to select up to five entities in developing countries as collaborative foreign institutions with the US participant universities. Each of these overseas entities shall be primarily responsible for research on one of the four pond culture systems singled out for the proposed aquaculture CRSP. However any of the chosen collaborating parties may at one or the same time be involved with others of these systems. Up to five additional foreign institutions will also be selected as backup institutions in case one or more of the first group should for some reason later be unable to collaborate. To the extent possible it would be desirable to choose sites in each of the African, Far East,

and Latin American/Carribbean regions, but at least two of these regions should be represented.

In selecting the foreign institutions to be recommended as collaborators with Auburn University, the University of California at Davis and the Consortium for International Fisheries and Aquaculture Development, a process will be employed which makes use of the cable traffic already initiated by DS/AGR/RNR. Cables were sent to some forty USAID/Missions and US Embassies in Latin America, Asia, Africa and the Near East where the RDA report, "Fisheries and Aquaculture: A Planning Approach" identified a potential for aquaculture research. The cables STATE 154949, STATE 154950, STATE 139893, STATE 127719, STATE 127870, and STATE 127833 requested the US Mission to respond whether or not it was agreeable to having the CRSP activity active within the country; whether there was a host country institutional capacity capable of participation and if so whether the available institution would be disposed to collaborate with the aquaculture CRSP proposal. Each individual response is on file at DA/AGR/RNR and these responses will be made available for use in the planning process. Only countries from which a positive response has been received are to be visited except where exceptions are specifically granted to this policy by the AID project manager.

All foreign travel under this grant will require the prior approval of the DS/AGR/RNR project manager and no travel will be approved unless prior clearance has first been received from the USAID or US Embassy involved. At least a thirty day advance notice is to be provided by Oregon State University, the management entity, to the project manager, so that adequate time is available for the clearances to be requested. In order to reduce travel costs all trips should be planned to visit as many countries at one time as possible and no more than two persons shall visit any one country except when a specific exception to this provision is requested by the management entity and granted by the AID project manager. Once a host country agency has been selected as one of the collaborating entities or as a back up institution, a second visit may, however, be requested and granted if said visit can be justified on the basis of a need to negotiate an administrative agreement of collaboration or for the purpose of helping that entity to prepare its collaborative scope of work.

The choice of institutions recommended as collaborating entities or as back up institutions in the CRSP shall be a function of the US participant universities. However their choices need to be thoroughly justified to the JRC and approved by the BIFAD before they are to be made a part of the subsequent CRSP proposal. Each selection should be justified on factors which include first a statement of the interest of the selected country in fish farming, second a background of the socio-cultural situation regarding aquaculture and fish consumption there and third the US mission posture regarding the aquaculture proposal. Each justification also should include an evaluation of the agency within the country with whom the collaboration is to be effected and what the facilities of each consist of. A brief description would be desirable of the qualifications of the principal local fisheries personnel available to participate in the bilateral activity. Finally there should appear an economic evaluation of the role of fish farming in the country at present as well as an analysis of any benefits that might be derived by the country from its participation in the proposed activity. Based on these and/or other equally relevant criteria the institutions and countries selected should be listed in priority order in a table showing how each selection was weighted.

As a further planning operation the US participating agencies will be expected to arrange provisional administrative agreements with the overseas entities recommended for participation and the host country governments in which they are located, a total of no more than ten principal and back up institutions in all. The administrative agreements should be of a nature such as to allow them to be put into effect on short notice when an Aquaculture CRSP has been approved by AID and once funds for the specific country program have been made available. The administrative agreement in each case may be drawn up as a letter of understanding. It should nevertheless be as specific as possible in regard to what the concerned institution and the host government understand they will provide in the way of personnel, services and material. A statement of the in-country mode of operation as related to the overall CRSP management would be desirable.

Whenever possible a chosen entity's plan of work should be included as part of the CRSP. This should be submitted as the host country proposal and accepted or rejected on its own merits. In the interest of expediting collaborative research quickly, however, assistance may be provided for developing such proposals under the planning grant, to the selected agencies in priority countries. The US university or universities concerned may be permitted up to one trip for this purpose but to the extent possible such travel shall be combined with other travel. Per diem should be maintained at a minimum and as much as possible the matters to be expedited should first be agreed to by correspondence. It will be expected that the host country and the selected LDC institution in that country will provide as great a contribution in kind as possible. This may be in terms of personnel, services and or the provision of equipment. The participation of other donors is also to be solicited and any such contributions to the collaborative country research proposal should also be listed in the work plan. A proposed budget showing the anticipated inputs of each participating party will be required.

3. Preparation of CRSP proposal for presentation to the JRC

It is estimated that within a nine month period after the release of funds for this planning grant it will be possible to have prepared and ready for presentation to the JRC a new Aquaculture CRSP proposal which will detail a five year program of pond culture research. The overseas travel (requirement II) of the grant will necessarily have to be largely concentrated within the first 5 or 6 months of the grant to accomplish this time schedule. The state-of-the-art study (requirement I) in contrast should be developed as part of a continuous program that would be carried through into the CRSP activity once it is approved. The actual preparation of the CRSP (requirement III) for presentation at the JRC should not take more than a four month period. This is because much of the information which the grantees prepared for use in their June 10, 1980 CRSP presentation to the JRC can be used in the new CRSP preparation.

The current grant is intended to complete the planning required to facilitate a CRSP proposal which will have the following specified goals:

- (1) A perfected system in manual form which specifies how to correct first single constraints and later interactions of constraints limiting pond culture in the major fish production systems of the LDCs.
- (2) A doubling of the host country contribution in personal services and in kind to pond culture research and implementation by the fifth year of the project.

(3) At the end of the fifth year the CRSP shall have accomplished the following measures of achievement for AID's target population in each area of project implementation:

- (a) A 10% increase in the area under pond culture.
- (b) An average increase of 25% in fish protein per crop of fish where tested improved practices are adopted.
- (c) A 20% reduction in the cost of fresh fish as compared to the price of beef on the hoof at the farm gate.
- (d) A 25% reduction in the cost of fish production in fish ponds where tested improved practices are adopted.
- (e) A 30% increase in fish consumption among sampled populations of rural families.

The detailed CRSP plan shall include but not be limited to the following items:

- (a) General program objectives.
- (b) The detailed projects as identified from the state-of-the art study and as contributory to the overall research program.
- (c) Objectives of each individual project.
- (d) The specific tasks to be assigned to each US participating agency or group of agencies.
- (e) The research plan and anticipated products of individual projects.
- (f) Participating investigators, time each will devote to the project and proportion of time each is expected to spend at overseas field activities.
- (g) An overall budget that delineates all proposed institutional financial inputs. These are Title XII funds, estimated developing country inputs and any third party inputs; budget will estimate field support from US institutional and Title XII funds and to the extent possible it will be broken down into separate research projects.
- (h) The LDC institutions and locations with which one or more of the US participating agencies will be associated is to be stated with a separate accounting of the estimated budget to be used at each.
- (i) An administrative agreement on the proposed program and operational plan will be provided for each developing country proposed as a major collaborator and to the extent possible for the countries selected as alternative candidates.
- (j) A preliminary program plan is to be provided for the collaborative research to be undertaken with each major collaborator overseas and to the extent possible in the case of entities selected as alternates.

(f) The final product will be a detailed plan of the composite program proposed in the CRSP. It is to be prepared according to the approved AID outline, for review by JRC and BIFAD and final approval by AID. All US agencies involved in the project activities named in the program must have concurred with the program by official communication before submission to AID.

C. Required Reports and Reporting Procedures

Five hundred copies of the complete State-of-the-Art Study shall be made available to AID containing separate sections on each of the four pond culture systems to be investigated as part of this planning grant; i.e., those specifically listed under the scope of work.

One hundred copies of a final report will be required. It should provide a complete record of the planning process and those individuals and institutions which contributed to it. Three sets of all interim reports and minutes of all meetings and conferences shall be supplied to BIFAD and three to AID. Copies of both the preliminary and comprehensive proposals shall also be supplied.

One hundred copies of a formal CRSP grant proposal which includes narrative summary of the proceedings, recommendations and a detailed description of the program finally accepted by JRC, BIFAD and AID will be furnished for use by BIFAD and AID.

In its capacity as the administrative entity for the planning grant Oregon State University will follow the standard financial reporting procedures required by SER/CM, the Office of Contract Management of the Bureau for Program Management Services of AID.

IV. Other Covenants

Up to \$40,000 shall be authorized in the present planning grant to cover the cost of expenses incurred between February 1980 and June 1980 by Auburn University, the University of California at Davis, CIFAD, and Oregon State University as the management entity in preparing the first CRSP Proposal, "Efficiency of Pond Culture Systems." Costs other than those which are justifiable as directly related to the preparation of the Aquaculture CRSP shall be borne at the expense of the respective agency.

Although the scope of work detailed above anticipated the presentation of a formalized CRSP proposal within nine months after the release of the AID funds the grant is to be made for a fifteen month duration. Project funds may be utilized subsequent to submission of the formalized CRSP proposal for expenditures related to the CRSP provided they are clearly justifiable as planning activities and are related to the project purpose. Such activities as the continued accumulation and processing of information for the state-of-the-art activity would meet this criteria. Another example is the finalization of collaborative agreements with host country LDCs upon approval of the CRSP by AID and before the release of AID funds under a Title XII CRSP agreement. As the administrative entity Oregon State University should, however, obtain previous clearance from the grant officer in SER/CM before expenditures of a planning nature are incurred which do not fit the above criteria, or in any instances where a question may arise in this regard.

LOGICAL FRAMEWORK

Form # 7-72 (Rev. 11-71) 13
 Total U.S. Funding \$1470,000
 Date Prepared: 3/18/80

Project Title & Number: Aquaculture Planning Grant (Project No. 931-1306)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To perfect a methodology to correct first single constraints in the predominant tropical pond systems and later interaction of those constraints.</p> <p>To achieve significant increases in fish production at reduced cost to small rural beneficiaries, both producers and consumers.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> 1) 10% increase in pond culture in collaborating countries. 2) 25% increase in fish production where perfected methodologies are adopted. 3) 20% reduction in cost of fish as compared to beef at farm gate. 4) 30% increase in fish consumption in pond site areas. 5) Doubling of country contribution to project. 	<ol style="list-style-type: none"> 1) Host country statistics and project financed surveys. 2) As No. 1 above. 3) Farm gate sales. 4) As No. 1 above. 5) Host country statistics and household interviews. 	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1) Project research will determine practices which are economically & culturally acceptable and can alleviate constraints. 2) CRSP research will satisfactorily interface with an outreach program to disseminate new know how to fish farmers. 3) That the population likes and will eat more fish.
<p>Project Purpose:</p> <p>A project plan is to be prepared which calls research to be undertaken by the grantee institutions, the collaborating institutions overseas and the host country governments.</p> <p>A state-of-the-art study is to be undertaken in four parts to determine relative constraints in each of the four major pond culture systems of the tropics.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>1.a. The appropriateness of preparing each research activity will be assessed. b. Is the research appropriate for the CRSP or better suited for a multilateral agency. c. An economic evaluation will be required. 2. A listing will be provided of the constraints as determined from the state-of-the-arts study in order of importance. It is to take into account socio-cultural factors which may provide maximum benefits to the rural population.</p>	<ol style="list-style-type: none"> 1) The technical evaluation is to be made available to AID. It shall contain cost return estimates for each proposed research activity. 2) A peer review will be held to evaluate the procedures by which the individual constraints were prioritized. 	<p>Assumptions for achieving purpose:</p> <p>That overseas inspections of proposed collaborating institutions can be financed at a level which will allow for the participation of a sociologist and fisheries economist in the planning of the collaborative research.</p>
<p>Outputs:</p> <ol style="list-style-type: none"> 1) A state-of-the art study in four parts one on each of the major pond culture systems of the tropics. 2) A five-year plan detailing research to be undertaken. 3) An updated CRSP proposal ready to be implemented. 4) A final report of work undertaken under the planning grant. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1) Five hundred copies. 2) Ten copies listing major collaborating institutions (5) and backup institutions (5). 3) One hundred copies. 4) One hundred copies. 	<ol style="list-style-type: none"> 1) Oregon State University as the management entity will be responsible for seeing that the outputs are made available to AID. 	<p>Assumptions for achieving outputs:</p> <p>That a grant will be provided which is sufficient to cover the costs of assembling the state-of-the arts study and the overseas inspections required to select collaborative institutions and work out research programs with them.</p>
<p>Inputs:</p> <ol style="list-style-type: none"> I. Salaries <ol style="list-style-type: none"> a) Senior Staff b) Professional Staff c) Secretarial Library & other II. Fringe Benefits III. Services and Supplies IV. Travel & <ol style="list-style-type: none"> a) Domestic trips (coast to coast) b) Domestic trips (interstate) c) To Far East d) To Near East e) To Africa f) To Latin America Per Diem <ol style="list-style-type: none"> a) Domestic b) Foreign V. Publication Costs VI. Computer Costs VII. INDIRECT COSTS VIII. OTHER COSTS 	<p>Implementation Target (Type and Quantity)</p> <ol style="list-style-type: none"> I. a) 15 mos @ \$2,500/mos \$37,500 b) 33 mos @ 2,000/mos 66,000 c) 37 mos @ 1,000/mos 37,000 <li style="padding-left: 20px;">\$140,500 II. 26% of Salaries 36,530 III. 16,500 IV. a) 17 RT @ \$1,000 17,000 b) 15 RT @ 500 7,500 c) 4 RT @ 3,500 14,000 d) 4 RT @ 3,000 12,000 e) 4 RT @ 3,000 12,000 f) 4 RT @ 2,500 10,000 a) 142 days @ \$50 7,100 b) 380 days @ 70 26,600 <li style="padding-left: 20px;">\$106,200 V. 6,000 VI. 15,000 <li style="padding-left: 20px;">\$320,730 99,426 VII. 11% of Direct Costs 420,156 	<p>As the management entity for the Auburn University, University of Calif. (Davis), CIFAD planning grant on Pond Dynamics, Oregon State University will be responsible for following all the formalities for fiscal reporting required by the AID Office of Financial Mgmt, SER/CM</p>	<p>Assumptions for providing inputs:</p> <p>The budget herein provided will be within the limits requested for completing the entire plan of work contemplated.</p>

PROJECTED BUDGET

I.	Salaries			
	A. Senior Staff	15 mos. @ \$2,500/mo.	\$37,500	
	B. Professional Staff	33 mos. @ \$2,000/mo.	66,000	
	C. Secretarial, Library & Other	37 mos. @ \$1,000/mo.	37,000	\$140,500
II.	Fringe Benefits	26% of Salaries		36,530
III.	Services & Supplies			16,500
IV.	Travel			
	A. Domestic (Coast to Coast)	17 round trips @ \$1,000ea.	\$17,000	
	B. Domestic (interstate)	15 round trips @ \$ 500ea.	7,500	
	C. Far East	4 round trips @ \$3,500ea.	14,000	
	D. Near East	4 round trips @ \$3,000ea.	12,000	
	E. Africa	4 round trips @ \$3,000ea.	12,000	
	F. Latin America	4 round trips @ \$2,500ea.	10,000	
	PER DIEM			
	A. Domestic	142 days @ \$50/day	7,100	
	B. Foreign	380 days @ \$70/day	26,600	106,200
V.	Publication Costs			6,000
VI.	Computer Costs			15,000
	TOTAL DIRECT COSTS			\$320,730
	INDIRECT COSTS	31% of Direct Costs		\$ 99,426
	TOTAL COSTS			\$420,156