A.I.D. EVALUATION SUMMARY - PART I

PD-ABG-140

1. BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS.
2. USE LETTER QUALITY TYPE, NOT "DOT MATRIX" TYPE.

IDENTIFICATION DATA

A. Reporting A.I.D. Unit:

Mission or AID/W Office BELIZE

(ES# _____).

B. Was Evaluation Scheduled In Current FY Annual Evaluation Plan?

Yes [X] Slipped [ ] Ad Hoc [ ]

Evaluation Plan Submission Date: FY 93 Q 1

C. Evaluation Timing

Interim [ ] Final [X] Ex Post [ ] Other [ ]

D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)

Project No.	Project /Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
505-0008	Commercialization of Alternative Crops Project: Amendment No. 5 FISHERIES COMPONENT	'89	12/92		

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director

Action(s) Required	Name of Officer Responsible for Action	Date Action to be Completed
1. Undertake an assessment of the training needs of the entire Fisheries Department (FD) and review the training components of all externally funded projects in order to determine those training needs not being addressed.	MAF	N/A: Project Completed
2. Implement the recommendations of the Coote Report (June 1992) and the Causey Report (1992) on Conservation Compliance.	MAF	"
3. Amend the Fisheries Regulations to allow for the implementation of a new licensing system.	GOB	"
4. Provide enhanced assistance to the Conch Hatchery both in the training of staff and the provision of equipment and supplies.	MAF	"
5. Ensure full utilization of the Glover's Reef facility.	MAF	"
6. Establish proper CCU base facilities in Punta Gorda	MAF	"
7. Undertake the establishment of a licensing data base on one of the computers supplied to the Fisheries Department by CFRAMP.	MAF	"
8. Carry out activities in reef monitoring with other projects being undertaken by the Government of Belize and CFRAMP.	MAF	"

(Attach extra sheet if necessary)

APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation: (Month) (Day) (Year)

G. Approvals of Evaluation Summary And Action Decisions:

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Name (Typed)	George E. Like		Winston Bennett	Barbara P. Sandoval
Signature			Winston Bennett	Barbara P. Sandoval
Date	6/4/93		6/22/93	6-22-93

ABSTRACT

H. Evaluation Abstract (Do not exceed the space provided)

The Commercialization of Alternative Crops (CAC) Project Amendment No. 5 signed in February 1990, included a component focusing on the protection and enhancement of the natural resource base. This Amendment sought specifically to strengthen the capability of the Fisheries Department to manage the coastal zone and fisheries resources of Belize which make significant contributions to the economic development of the country.

The Project Assistance Completion Date of the CAC Project was December 31, 1992. In January 1993, an evaluation team of Miller and Miller, Ltd., of Belize City was contracted to carry out an evaluation of the Fisheries Component of Amendment No. 5 of the CAC Project. The team consisted of two persons who were required to work for twenty work days to complete the report.

The team determined that insufficient professional staff at the Fisheries Department prevented full implementation of the activities planned under this component. One successful and noteworthy accomplishment was the establishment of an effective Conservation Compliance Unit (CCU) to monitor and enforce fisheries and marine regulations.

Lessons learned:

A lack of sufficient professional staff at the Fisheries Department hampered the planned achievement of goals. Future activities should ensure adequate counterpart staff are available. Despite some difficulties, the CCU has been initially effective in addressing marine regulations and could serve as a model for other similar Regional activities.

COSTS

I. Evaluation Costs

1. Evaluation Team

Name	Affiliation	Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. $)	Source of Funds
G. Winston Miller	Miller and Miller, Ltd.	40	8,060	Project No. 505-0000: Sustainability Review of Selected Agric Development Activities.
John Briggs	Miller and Miller, Ltd.			

2. Mission/Office Professional Staff Person-Days (Estimate) 4

3. Borrower/Grantee Professional Staff Person-Days (Estimate) 8.5

A.I.D. EVALUATION SUMMARY - PART II

SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)
Address the following items:

- Purpose of evaluation and methodology used
- Purpose of activity(ies) evaluated
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

Mission or Office:	Date This Summary Prepared:	Title And Date Of Full Evaluation Report:
USAID/BELIZE	06/03/93	Evaluation of Fisheries Component of Amd. 5 for the CAC Project No. 505-0008.

Purpose of evaluation: 1) to evaluate the progress made by the CAC Project in achieving stated goals and purposes as related to the activities with the Ministry of Agriculture and Fisheries (MAF) Fisheries Department (FD), 2) determine the activities of other donors in this sector and their relation to USAID-funded work, and 3) make appropriate recommendations of this component in light of the termination of A.I.D. financial assistance.

Methodology Used: The consultants reviewed all pertinent documentation at USAID, FD, and the MAF. They discussed the details with the USAID Project Managers, personnel from the FD in Belize City, Punta Gorda, San Pedro, Belmopan, and other donor officials.

Purpose of activity evaluated: To strengthen the capability of the FD to manage the coastal zone and fisheries resources of Belize which make such significant contributions to the economic development of the country

Findings:

The major technical activities addressed by this project component were: 1) conservation compliance, 2) licensing, 3) reef monitoring and assessment, 4) coastal zone education and public awareness, 5) staff training, 6) conch research, and 7) the establishment of a marine research station at Glovers Reef. The findings of each are listed below:

1. Conservation Compliance

The Conservation Compliance Unit is intended to enhance the ability of the FD to reduce losses due to illegal activities in the fishing industry. Five fully equipped patrol boats were procured by USAID, three stationed in Belize City and two in Punta Gorda. The boats frequently patrol. They have advised numerous individuals regarding marine regulations and have apprehended several persons engaged in illegal fishing.

The activity of the patrol boats and crews is acting as a deterrent to illegal fishing. However, the CCU boat operators should receive additional training in basic navigation, engine repair and maintenance, rescue at sea and basic first aid.

2. Licensing

The number of fishermen and boats in Belizean waters have increased greatly in recent years. There is a need to upgrade the fishing licensing system and to increase fees. The CAC Project contained provisions for a new system of implementing the necessary measures, including the issuing of laminated licenses. The equipment needed for the new system was purchased under the CAC Project. The required legal license framework has not yet been put in place and the new system has not been implemented.

3. Reef Monitoring and Assessment

This component was designed to set up a water quality monitoring scheme to assess the status of Belize's significant reef. Required equipment has been delivered but monitoring stations have not yet been set up. There is a need for technical assistance, including the training of counterpart staff, to establish these monitoring stations. These activities, including required TA and training, will be continue with funds from other donors.

4. Coastal Zone Education and Public Awareness

The major activity carried out under this sub-component was the co-sponsorship of a six-day mangrove education and training workshop. The workshop was aimed at providing teachers from selected high schools, and other interested parties, information and first hand experience in mangrove ecology. This workshop contributed towards making the public aware of the importance of mangroves and the need to protect them.

5. Staff Training

The long-term training for two Belizeans in coastal resources planning and/or fisheries management did not take place. Short-term training in fisheries compliance was conducted in October 1992 for personnel of the CCU.

6. Conch Hatchery

The conch hatchery is capable of producing large numbers of juvenile conch to restock depleted areas and could assist in reverving downward population trends of this economically important species. However the laboratory staff, consisting of three persons, lack basic equipment to carry out their duties, and the lab operates on a very limited budget.

7. Glovers Reef Research Facility

Glover's Reef contains a great diversity of reef types and is the most pristine of Belize's three outer atolls. One of the project's goals was to establish a permanent research facility on that Caye to undertake reef monitoring studies, as well as to co-operate with international efforts aimed at carrying out coral reef investigations. A building to be used as a research facility has been completed and a plan has been developed with the New York Zoological Society to fully utilize this facility.

The FD is receiving significant support from other international donors.

Conclusion

As a result of several problems including insufficient staff and administrative delays, a number of sub-components were not completed and the expected impact of the project was not fully realized. Greater care in project design, especially regarding the realistic availability of counterpart professional staff could have avoided some of the obstacles encountered. The geographic distance of the FD from the central offices of the Ministry of Agriculture and Fisheries furthered hampered implementation.

One successful component of the project was the establishment of an operational Conservation Compliance Unit. The Unit is already having a visible impact on the level of illegal fishing in Belizean waters.

Approximately 40% of $616,000 budgeted funds for this component were uncommitted.

PRINCIPAL RECOMMENDATIONS

Conservation Compliance: The recommendations made by Coote (June 1992) should be implemented. The proper establishment of base facilities in Punta Gorda and the supply of radio equipment is essential to the functioning of the unit and the safety of its personnel.

Licensing: An amendment to the Fisheries Regulations necessary to introduce the proposed licensing system should be signed and brought into force. This would permit the initiation of improved licensing procedures.

Training: An assessment of the training needs of the entire Fisheries Department should be undertaken and the training components of all externally funded projects be reviewed in order to determine training needs not being addressed.

Conch Hatchery: While a committed and qualified core staff exists at this facility, greater administration and financial assistance must be provided by the GOB to ensure its success.

Reef Monitoring: These planned activities should be implemented by the Government of Belize and other funded projects at the earliest opportunity.

Glover's Reef Research Facility: The recently completed facility at Glover's Reef could prove to be very useful in facilitating coral reef research by providing a ready made base for scientists and researchers. The Government of Belize should continue to work with the New York Zoological Society to maximize use of this station.

Establishment of Staff: It is extremely important that the staff of the Conservation Compliance Unit be taken onto the "Establishment" under the standard Public Service terms and funded from the Recurrent component of the national budget. Such staff are carrying out duties similar to those of Customs, Immigration and Police staff with a similar degree of danger. They should not be expected to be employed under any less conditions of service.

Lessons Learned

A lack of sufficient professional staff at the Fisheries Department hampered the planned achievement of goals. Future activities should ensure adequate counterpart staff are available. Despite some difficulties the CCU has been initially effective in addressing marine regulations and could serve as a model for other similar Regional activities.

XD-ABG-140-A

EVALUATION OF FISHERIES COMPONENT OF

AMENDMENT NO. 5

TO THE

PROJECT GRANT AGREEMENT

BETWEEN THE

GOVERNMENT OF BELIZE

AND THE

UNITED STATES OF AMERICA

ACTING THROUGH THE

AGENCY FOR INTERNATIONAL DEVELOPMENT

FOR THE

COMMERCIALIZATION OF ALTERNATIVE CROPS

PROJECT NO. 505-0008

DATE	:	January 22, 1993
CONTRACT NO.	:	PIO/C 505-0000-3-20047
SUBMITTED BY	:	MILLER AND MILLER LTD. BELIZE CITY, BELIZE

Participating Consultants: G. Winston Miller
John Briggs

Revised 3/1/93

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Management Auditing of the Conservation Compliance Unit , Coote and Associates, 1992

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Recommendations for Training of the Belize Conservation Compliance Unit, Billy D. Causey,1992

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Comments on Draft Report - Ministry of Agriculture and Fisheries.

I. EXECUTIVE SUMMARY.

The Commercialisation of Alternative Crops (CAC) Project was formulated to generate increased employment, income and foreign exchange and to bring about diversification in the agricultural sector both to increase exports and for import substitution. Amendment V made provision for the inclusion of a component focusing on the protection and enhancement of the natural resource base. It specifically supported those activities that brought about the development of institutional capabilities needed to address economic diversification issues in fisheries.

The goals of the fisheries component of Amendment V included:

- transforming existing feasibility studies into strategic action plans for later implementation;
- ensuring the continued planning, management and operation of the Hol Chan Marine Reserve and Conch Laboratory;
- obtaining more control over the natural resource base;
- developing and implementing more consistent and supportive policies, legislative mandates and enforcement mechanisms;
- disseminating information to enhance public awareness about resource management and the contribution of natural resources to the Belizean economy;
- co-ordinating with governmental, indigenous non-govermental and international organisations, to ensure the most effecfive use of human, financial and other resources during the implementation of the project.

The Amendment sought specifically to strengthen the capability of the Fisheries Department to manage the coastal zone and fisheries resources of Belize which make such significant contributions to the economic development of the country. A major activity in accomplishing this goal was the setting up of an effective Conservation Compliance Unit with equipment and materials supplied by project funds, complemented by staff and operational expenditure from the Government of Belize.

Among the observations made during the course of the evaluation of Amendment V were the following:

a) difficulties in obtaining the services of an adequately qualified Project Co-ordinator at the on-set of the project;

b) difficulties in obtaining detailed specifications for the equipment and tardiness in ordering, resulting in serious delays in the implementation of the project;

c) one month before the termination date of the project, about 40% of the project funds remained uncommitted;

d) the Conservation Compliance Unit appeared to be having a very positive impact. The Unit's boats have been conducting frequent patrols which have resulted in increased convictions and fewer reported sightings of foreign fishing vessels in national waters;

e) the targeted upgrading of the licensing system has been delayed mainly because the legal framework necessary for its implementation has not been put in place;

f) the general tardiness in implementation of the project and the failure to identify an acceptable consultant in coastal zone management resulted in limited effort being directed towards some of the components of the project.

g) the training component which formed an integral part of the project was not completed.

In order to enhance the chances of success of future projects, the following recommendations are thus offered:

i) a qualified/experienced Project Co-ordinator/Manager should be appointed immediately after the signing of the funding agreement with terms of reference appropriate for the successful implementation of the project;

ii) administration of the project, specifically the transfer of funds from USAID to the implementing agency, should be stream-lined;

iii) the use of Technical Assistance funds should be allowed for the appropriate staff member to travel to the USA to source specialized equipment and machinery so as to minimize time and effort spent in complying with USAID purchasing procedures;

iv) a percentage of the purchase price of any major item should be allocated for the purchase of spares to be supplied by the manufacturer/agent at the time of delivery of the equipment so as to minimize down-time for such items;

v) a critical path analysis should be conducted early in the project to ensure that all inputs necessary to achieve stated goals are met;

vi) an assessment of the training needs of the Fisheries Department should be conducted and the training components of all externally-funded projects be reviewed in order to determine those needs not being addressed;

vii) in meeting the training needs identified for the Department, greater use should be made of expertise available within the country;

The following recommendations for action by the Government of Belize / USAID are also made:

a) implement the recommendations of the Coote Report (June 1992) and the Causey Report (1992) on Conservation Compliance; (see Appendices I & II)

b) efforts to amend the Fisheries Regulations to allow for the implementation of a new licensing system should be undertaken immediately by the implementing agency;

c) enhanced assistance should be provided to the Conch Hatchery both in the training of staff and the provision of equipment and supplies.

d) mechanisms to optimize the use of the Glover's Reef facility should be examined and implemented.

II. BACKGROUND

The Commercialization of Alternative Crops (CAC) Project was authorized in 1985 to generate increased employment, income and foreign exchange and to expand the base of economic activity in Belize by developing alternative agricultural products for export and import substitution. The project was amended in November 1989 (Amendment No. 5) to include a component focusing on the protection and enhancement of the natural resource base to increase opportunities for diversification and sustainable economic growth. Further amendments were made in 1990 and 1991 to increase the total funding available, alter line item budgets and extend the project completion date to 31st December 1992 (Amendments No. 6 and No. 7).

The component under review is the assistance to the Fisheries Department of the Ministry of Agriculture and Fisheries. Funding was provided to undertake a series of activities in coastal resources and fisheries planning, protection and management. The initiative was to focus on long-term training of personnel in fisheries management, short-term training of personnel in Belize's Fisheries Compliance Unit, development of a coastal resources management plan, public awareness activities, and implementation of an innovative financing program. Equipment to be purchased under this component included five small boats, computer equipment, and radios.

Amendment No. 5

Amendment No. 5, dated February 27, 1990 increased the funds available under the project from US$2,000,000 to US$2,455,000 in Grant Funds. The completion date for the project was also extended from September 30, 1990 to December 31, 1992.

Article 4: Conditions Precedent to Disbursement was amended by the addition of a new Section 4.4:

> "Section 4.4 Fisheries and Land Titling Activities
> Except as A.I.D. may otherwise agree in writing, prior to any disbursement of project funds for fisheries and land titling activities other than continued operation of the Hol Chan Marine Reserve and Conch Laboratory, or to the issuance of documents pursuant to which such disbursements may be made, the Grantee shall furnish in form and substance satisfactory to A.I.D.:

(a) An implementation plan and budget for the first year of project activities, including a scope of work for the technical assistance and training requirements for each corresponding component and identification of positions which will have GOB responsibility for implementation;

(b) Evidence that the Grantee has selected existing and/or contracted for appropriate office facilities in Belize City and Belmopan, including vehicles and maintenance services, and secure storage for all project financed commodities."

Article 5: Special Covenants, was also amended to include the following additions:

"SECTION 5.4 Except as A.I.D. otherwise agrees in writing, the Grantee agrees to the following covenants related to fisheries and land titling activities:

(a) that the Grantee shall furnish, in form and substance satisfactory to A.I.D., in January of each year during the life of the project, an annual detailed implementation plan and budget, derived from the Annual Operating Plan and the proposed GOB budget;

(b) that the Grantee shall establish, as part of the Project, agreements with appropriate non-governmental organizations to provide relevant technical services and training to support the Project's coast resources/fisheries management and land titling information system as necessary;

(c) that the Grantee will ensure that relevant positions within the corresponding departments are made available to government personnel upon their return from participant training in the U.S."

Annex 1, Project Description and Attachment 1, the "Financial Plan", to Annex I were also amended accordingly. These amended sections can be found at the end of this report in Appendix 1.

Amendments Nos 6 & 7

These amendments were made in 1990 and 1991 respectively. Amendment No. 6 increased the budget available for the project to the level of US $616,000.00. The project completion date was also extended to 31st December 1992. Amendment No. 7 revised the line item allocation of the funding without changing the total funding allocation. In effect, it is that modified final line allocation that is evaluated in this report. That allocation is detailed below.

Goal and Purpose

The overall goal of the CAC Project is indicated above. Specifically, the project amendment supports certain activities that will ensure the development of public institutional capabilities needed to address economic diversification issues in fisheries. The specific goals for the fisheries component of the Project include:

Transform existing feasibility studies into strategic action plans for public and private implementation over the longer term;

Ensure the continued planning, management and operation of the Hol Chan Marine Reserve and Conch Laboratory;

Obtain more control over the natural resource base;

Develop and implement more consistent and supportive policies, legislative mandates and enforcement mechanisms;

Disseminate information to enhance public awareness about resource management and the contribution of natural resources to the Belizean economy;

Coordinate with governmental, indigenous non-governmental and international organizations, to ensure the most effective use of human, financial and other resources during the implementation of the project.

III. RATIONALE

The fisheries habitat makes up approximately 51 percent of Belize's official territory of 18,000 square miles. This habitat includes the second longest barrier reef in the world. The fishing industry ranks third in importance as a contributor to the Gross Domestic Product (GDP) of Belize (after agriculture and tourism). The commercial fishing cooperatives which exploit these resources generate $17 - 20 million per year in foreign exchange earnings providing direct employment to some two thousand fishermen and plant workers and indirect employment for an estimated eight to ten thousand persons in the supply, transportation and service sectors. In addition, much of the tourism industry is based on water-related activities (diving, fishing, water sports etc) and is thus dependent on the marine environment for its successful operation - tourism generates in excess of $100 million per year in foreign exchange earnings. The Fisheries Department receives a recurrent allocation of less than 0.2 per cent of the national recurrent budget (1992/93) and yet is directly responsible for $20 million of foreign exchange earnings and indirectly responsible for a proportion of a further $100 million of foreign exchange earnings.

Currently, these fisheries are not properly planned and managed as a resource, not well-coordinated with other economic activities and land planning, inadequately supervised and not well understood by the fishermen and general public in terms of their contributions and the requirements of sound management for a long-term, viable economic base.

The Fisheries Department is a small department with a very limited budget and small number of staff. As such, it lacked the capability to adequately carry out its functions, which include compliance with fishing regulations, protection of the resources of the marine environment, as well as research and development of sustained production of the marine resources.

The project sought to boost the capability of the Department by providing equipment and materials to be counterparted by staffing and operational expenditure from the Government of Belize.

Planning

Coastal zone planning and management is a critical issue for countries with vast coastal and fisheries resources, such as Belize. The development of a Coastal Zone Plan which would guide development and use of the zone, involving public participation in the development and implementation of the plan was considered vital.

Training

The training of Fisheries Department personnel was considered to be a major priority. Short-term training was to focus on the training of personnel in the Compliance Units and training to orient Fisheries Department personnel in the nature of coastal zone planning. Long-term training was to be provided to two Belizeans in coastal resources planning and/or fisheries management.

Public Awareness

The project personnel were to work with the Ministry of Education and other agencies to make curriculum and educational materials available for integration into existing science and related school curricula.

Policy Consideration

The financing of recurrent costs of fisheries was to be addressed. Innovative financing methods were to be developed and integrated into the overall financing of fisheries recurrent budget.

IV. METHODOLOGY

In carrying out this evaluation requested by USAID, the consultants examined all pertinent documents and project files at the offices of USAID, the Fisheries Department and the Ministry of Agriculture and Fisheries. In addition, they discussed the details of the project with Messrs Fred Hunter Jr. and Joseph McGann, Project Officers, USAID. They also interviewed the following persons at the locations indicated:-

Belize City.

(a) Mr Vincent Gillett, Fisheries Administrator; 7 hrs.

(b) Ms Beverly Wade, Project Co-ordinator; 9 hrs.

(c) Mr Ulric Usher, Assistant Fisheries Officer; 3 hrs.

(d) Mr Alphonso Avilez, Fisheries Technician; 2 hrs.

(e) Mr Romaldo Badillo, Senior Coxswain, Fisheries Dept.; 4 hrs.

(f) Mr Clive Lino, Fisheries Inspector; 3 hrs.

(g) Mr Allan Bevans Green, Chairman Belize Fishermen Co-operative Association (BFCA); 4 hrs.

(h) Ms Judith Swift, First Class Clerk (Accounts), Fisheries Department. 3 hrs.

Punta Gorda.

(a) Mr Michael Norales, Assistant Fisheries Officer; 6 hrs.

(b) Mr Reginald Foster, Coxswain; 2 hrs.

(c) Mr Ernesto Requena, Coxswain; 2 hrs.

(c) Mr Julio Requena Jr, Fisheries Inspector; 2 hrs.

(d) Mr Edgar Avila, Assistant Coxswain; 1 hr.

San Pedro.

(a) Mr James Azueta, Manager Hol Chan Marine Reserve; 3 hrs.

(b) Mr Maximiliano Ruiz, Biologist Hol Chan Marine reserve; 3 hrs.

(c) Mr Mauro Gongora, Director Conch Hatchery; 5 hrs.

(d) Mr Manuel Heredia. Caribena Fishermen Co-operative; 3 hrs.

Belmopan.

(a) Mr Rodney Neal, Permanent Secretary, Ministry of Agriculture and Fisheries. 3 hrs.

(b) Mr E.A.Zuniga, Finance Officer, Ministry of Agriculture and Fisheries. 2 hrs.

(c) Mr Wendell Parham, Policy Analyst, Ministry of Agriculture and Fisheries. 2 hrs.

V. FINDINGS AND OBSERVATIONS.

1). Administration of the project

The administrative structure of the Ministry of Agriculture and Fisheries is such that the Fisheries Department operates in somewhat of a vacuum in Belize City, away from the main activity of the Ministry in Belmopan.

This vacuum was reinforced by the lines of communication from USAID directly to the Fisheries Department, instead of the more standard procedure through the Ministry of Agriculture and Fisheries. Little of the early correspondence is evident in the files in Belmopan and, such as is there, is mostly copy of correspondence between USAID and the Fisheries Department. Following representations made by the Ministry, a greater proportion of correspondence was then channelled through the Ministry.

The implementation of the project directly by the Fisheries Department, effectively by-passing the Ministry and consequently without backup or support from the Ministry, has contributed significantly to the delays in implementation. The Fisheries Department had a core of two professional staff with little experience of AID-funded projects and the procedural requirements for their implementation. The two professionals had extensive other duties and were thus unable to contribute the time and detail required to implement a project such as this one.

This factor is ably demonstrated in the lengthy period taken to comply with the conditions precedent (a relatively straight forward procedure) - up to September 25th 1991. That effectively reduced the project implementation period to fifteen months and automatically excluded a number of key components that could not be completed within that time frame. One such component was the long term training of two Belizeans at either first degree or Master's degree level in coastal resources planning or fisheries management.

The change in personnel and management style at USAID resulted in repetition of some of the documentation in greater detail after previous agreement had been reached. This caused frustration at the departmental level.

The lack of experience in administration also was evident in the time period taken to draw up the project coordinator's contract (four months). Reliance was placed on correspondence between the various parties involved, which inevitably stretched out the procedure. A more experienced administrator would have hand carried the draft between the various parties in the correct sequence, amending it as he went, and within two weeks, producing a contract acceptable to all parties involved.

The implementation of certain components of this project involved other agencies over which the Fisheries Department had no control. The introduction of a new fishing license cannot be undertaken until the legislation is amended. (The equipment has been purchased and is now in storage.) The drawing up of the required amendments is the responsibility of the office of the Solicitor General in the Attorney General's Ministry. That Ministry has other priorities. The project document should have made provision for the drawing up of the necessary amending legislation outside of the Attorney General's Ministry, for submission and ultimate approval of that Ministry. Utilization of a local consultant, not necessarily a legal expert but one with a legal turn of phrase who could work closely with the Solicitor General, under the Technical Assistance component for a very short period, would have been able to achieve that goal.

Project Coordinator

It was not until October 1991 that approval was given by USAID to allow the contracting of a Project Coordinator for the Fisheries Project. Interviews were held twice. No applicant fulfilled the requirements of the post. In the interest of filling the post, the most promising candidate was offered the post. That candidate had neither qualifications (Sixth Form graduate) nor the experience (Nil) requested. It is unfortunate that little or no assistance, training or supervision and direction have been forthcoming for the Project Coordinator who was thrown in at the deep end of a project seriously behind in its implementation, but without a life-line support. The Project Officer at USAID is administrative in function with a number of projects to administer, hence having little or no time or opportunity to provide support to the Project Coordinator.

In addition, the Project Coordinator had no authority delegated to her, all decisions being made by the Fisheries Administrator. Frequently, decisions were made and not communicated to the Project Coordinator. In essence, the position became one of facilitator. Given the duties actually assigned, the Coordinator was effective in her duties. Regular reports were submitted

to the Fisheries Administrator.

Recommendation for future projects

Project Coordinator/Manager

A project of this size, although relatively small in international funding terms, targeted at a department or agency with such a small number of professional staff, requires a qualified/experienced project manager to be appointed immediately after the funding agreement is signed. The terms of reference for the post should include facilitation of the conditions precedent, preparation of detailed work plans and detailed financial projections for the project, purchasing/ordering of equipment and supplies, and implementation of the project. As such, the project manager must be given the necessary authority to carry out that task. It might not be necessary for the project manager to be in post for the entire project life. It could be designed so that a counterpart established post takes over the final stages of implementation of the project (after all equipment is ordered, training programs established etc).

USAID Requirements

USAID has specific and detailed requirements and procedures governed by rules laid out for all projects worldwide. Although to someone with experience working on externally-funded projects, these procedures and requirements become routine, to those exposed for the first time to them, they appear complicated, arduous and sometimes unnecessary. Implementing an aid-funded project requires much more than preparing a shopping list of equipment with little in the way of specifics. One major problem in preparing submissions for the purchase of machinery and equipment is the lack of information on such equipment in Belize. The individual drawing up the request knows what piece of equipment is wanted but has great difficulty finding who is the manufacturer (much less three manufacturers for competing tenders/bids), the model number, catalogue number, and sufficient detailed specifications, to enable an agent or intermediate supplier to quote a contract price. There are techniques to writing such specifications which can only be gained through experience. In this case, experience was lacking and resulted in purchase requests being returned repeatedly for lack of specifics and/or presentation.

Additional delays were incurred following the rejection of some items on liquidation of advance claims elsewhere in the overall CAC project. That outstanding advance was not liquidated until January 1992.

Recommendation for future projects

Purchase of Machinery and Equipment

Where specialized machinery or equipment is included in a project of substantial value, then consideration should be given to the use of Technical Assistance funds to finance the cost of the Project Manager or a technical member of staff travelling to the USA to source adequate information and detail on the equipment needed so that proper specifications can be written for the central purchasing agency. In addition, consideration might be given to using such travel for the direct purchasing of small items over-the-counter from distributors or manufacturers in the USA.

As an example, the determination of specifications for a laboratory equipped to perform specific functions could be greatly facilitated by the visit of a technical person to a laboratory performing those same functions. In that way an element of training could be combined with the detailing of specifications for equipment. (Catalogues and brochures do not detail the problems in using equipment on a daily basis nor the compatibility with other associated equipment.)

Purchase of stock spares/replacement parts

Provision be made for the inclusion of a percentage of the purchase price of any major item for routine operating spares/replacements and other manufacturers recommended spare parts to be supplied by the manufacturer/agent along with the equipment to establish a stock of those spares which is then maintained from counterpart operating funds (as provided by some donor agencies - eg. UKAID).

Plan Development

The preparation of work plans and financial plans were the responsibility of the implementing agency - the Fisheries Department. USAID requires these plans to be in a particular format and with a certain level of detail. The small number of professional staff in the Fisheries Department, combined with inexperience in implementing such projects, resulted in the initial plans being drawn up with inadequate detail to meet the USAID requirements. The Project Officer and other staff at USAID have neither the time nor the responsibility to assist in this process.

The delay in meeting the conditions precedent resulted in a necessity to revise the plans drawn up, especially in respect of the training component.

There is, of course the necessity of obtaining approval of the plans drawn up for any project by any individual Department at the Ministerial level, Ministry of Finance and possibly Cabinet level of the Government of Belize, especially where a project has financial implications for the Government of Belize in either the short or long term. As such, any modification or alteration of plans drawn up by the funding agency may require those plans to go back through the approval process at the Ministry, etc.

The inclusion of a suitably-qualified Project Coordinator at the initial stage of the project, with terms of reference to include meeting the conditions precedent for the project, formulation of the work plans and financial plans, and facilitating the purchasing of all equipment (obtaining specifications, quotes etc) would have eliminated a great deal of the delays incurred in this project.

2). Budget and Expenditure

The amount budgeted under the Project Grant Agreement for the Fisheries component is U.S. $ 616,000.00. This is allocated as follows:-

Technical Assistance .....$ 317,000.00

Training .....$ 49,000.00

Equipment & Materials .....$ 250,000.00

The following figures give totals of expenditures made and funds committed as of November 30, 1992:-

Technical Assistance:

Project Co-ordinator	$ 17,000.00
Glovers Reef Research Facilities ..	$ 43,000.00
Conch research *.....	$ 9,000.00
Travel (Consultant B.D. Causey)....	$ 1,450.00
Total	$ 70,450.00
Balance	$ 246,550.00

* Apart from CAC funding, USAID provided an additional $100,000 in support of the conch research laboratory.

Training:

2 participants St Lucia Workshop ..	$ 1,419.00
1 participant Rhode Island Seminar.	$ 2,040.00
U.S.A. training - 1 participant ...	$ 6,936.00
Mangrove Ecology Workshop	$ 23,000.00
Total	$ 33,395.00
Balance	$ 15,605.00

Equipment and Material.

Boats	$ 150,773.00
Small items	$ 99,000.00
Total	$ 249,773.00
Balance	$ 277.00

The above figures show that approximately 40% of the budgeted funds remained uncommitted one month before the scheduled termination of the project. Most of the uncommitted funds were ear-marked for technical assistance and the inability to identify a coastal zone management consultant acceptable to both USAID and the Fisheries Administrator seems to be the main reason for the non-utilization of the budgeted funds.

3). Activities

The major activities carried out by the project fall conveniently into the following areas:-

(i) Conservation Compliance,

(ii) Licensing,

(iii) Reef monitoring and assessment,

(iv) Coastal zone education and public awareness,

(v) Staff training,

(vi) Conch hatchery,

(vii) Glovers Reef research station.

(i) Conservation Compliance.

Although the fishing industry is a major contributor to the economy of Belize, traditionally insufficient attention has been paid towards ensuring its sustained viability. As a result, illegal harvesting of stocks both by nationals of Belize and by immigrants from the neighbouring Republics has remained relatively unchecked. It is well known that the Fisheries Department lacks the capability to adequately enforce compliance with regulations geared at protecting the industry from over-exploitation and the consequent depletion of valuable stocks. The Maritime Wing of the Belize Defence Force assists in fisheries surveillance and enforcement, but because of other duties such as protecting national boundaries and restricting illegal immigration, fishery activities are afforded a relatively low priority.

The Conservation Compliance sub-component of the project is intended, inter alia, to enhance the ability of the Fisheries Department in law enforcement, thereby increasing returns to the industry by reducing losses due to illegal activities.

The project supplied the Department with five-fully operational boats, ranging in overall length from nineteen to twenty-four feet. Three of these boats are currently stationed in Belize City and the other two in Punta Gorda. As a result of having spent several months in the identification and procurement of craft that met the required criteria, the boats were not delivered until February, 1992.

The Ministry of Agriculture and Fisheries has, by and large, supplied the personnel to operate the boats. A coxswain and an assistant coxswain have been appointed for each and adequate facilities provided for storage of ancillary equipment in Belize City. In Punta Gorda, three watchmen have been appointed by the Government of Belize (GOB) to ensure that the boats are adequately kept under surveillance each night.

According to the Fisheries Administrator, funds have been allocated by the Ministry for the construction of a building to house the Conservation Compliance Unit in Punta Gorda. The Consultant was shown the site which has been selected. However, construction has not yet started and therefore it appears that for at least the next several months, the Punta Gorda Unit will continue to occupy the building owned by the Toledo Small Farmers Development Project. The building is used every Wednesday for meetings by the Small Farmers group and, on those occasions the Compliance Unit has to make the needed space available to the owners. In addition, the Fisheries Department is not responsible for the security of the building and is unwilling to keep items such as radios and spare parts for engines in it. This creates a major problem as there is no base radio for communicating with the boats when they are out on patrol. Messages from the boats have to be relayed to the Unit by the police or some other agency.

It addition, the Unit lacks a refrigeration unit which is vitally necessary for storage of 'exhibits'. The Inspector has to rely on the kindness of his friends to obtain space in a freezer.

Despite the above-mentioned problems, the boats go on frequent patrols and have apprehended several persons engaged in illegal fishing. During the past few months convictions have increased significantly and there is evidence that the increased vigilance is beginning to pay dividends since local fishermen report fewer sightings of alien boats in Belizean waters. Members of the BFCA have openly expressed their support for the increased vigilance and have offered to assist the Fisheries Department whenever the need arises. One other positive effect is that the heightened activity of the patrol boats appears to be acting as a deterrent and would-be poachers think twice before breaking the law.

Once the base is completed in Punta Gorda and a radio is installed, the effectiveness of that southern station will be enhanced. It is to be expected however, that basic essential spare parts would be kept on hand at all times.

The lack of training of Compliance Unit staff, both in Punta Gorda and Belize City is detrimental to the performance of the Unit. Such training should include proper procedures for boarding and carrying out searches, methods of treating suspects who resist, preparation of documentation for Court, prosecution techniques and rules of evidence. In addition, all boat operators should be trained in basic navigation and engine repair and maintenance, rescue at sea and basic first aid.

Recommendation

The recommendations made by Coote, (June 1992) (see Appendix I) should be implemented immediately. The proper establishment of base facilities in Punta Gorda and the supply of radio equipment (as recommended by Causey, 1992) (see Appendix II) is essential to the functioning of the unit and the safety of its personnel.

(ii) Licensing.

The current licensing of fishermen, boats, fish exporters and scientific investigators was initiated in 1978. At the time, the measure was seen as a means of getting much needed information on the extent of fishing effort and was not geared for revenue generation. As a result, licensing fees were set at an extremely small figure. Since that time however, the numbers of fishermen and boats have increased tremendously and there is clearly a need to upgrade the system to accommodate the much larger numbers of individuals and to bring the fees to a more realistic figure.

The project proposal contains provisions for implementing the necessary measures, including the issuing of laminated licenses which would not only be more convenient to carry, but would have the additional advantage of being waterproof. Most of the equipment, including the ID camera needed to implement the new system, arrived in the country some months ago. Unfortunately the legal framework has not yet been put in place. The Fisheries Regulations need to be amended as both the application for licenses and license itself must be made on the form prescribed in Statutory Instrument #66 of 1977.

Recommendation

It is recommended that the amendment to the Fisheries Regulations necessary to introduce the proposed licensing system be signed and brought into force immediately to coincide with the renewal of the boat licenses and fish exporter's licenses due January 1993.

The establishment of a licensing data base on one of the computers supplied to the Fisheries Department by another project (CFRAMP), should be undertaken immediately.

(iii) Reef Monitoring and Assessment

Continued fishery productivity depends in large measure on the health of the Barrier Reef ecosystem. Increased agricultural activity resulting in the increased use of herbicides and pesticides, as well as increased aquaculture in coastal areas, have resulted in increased chemical pollution of the marine environment. In addition, increased urbanization and tourism-related activities have contributed to coastal zone degradation. It is very important to monitor the changes in water quality so that corrective measures can be implemented before irreparable damage takes place.

The reef monitoring sub-component was designed to set up a water quality monitoring scheme. The equipment has been ordered and the majority of the necessary items arrived in country within the last few weeks, but as far as has been ascertained, monitoring stations have not yet been set up. There is clearly the urgent need for technical assistance, including the training of counterpart staff, in the implementation of this part of the project.

It is worth noting, that since the majority of tourists visiting Belize do so to engage in some marine-oriented activity such as snorkelling, recreational fishing, scuba diving or under-water photography, the continued health of the Barrier reef ecosystem is vital for a thriving tourism industry and the economic well-being of the country.

Recommendation

It is strongly recommended that the activities that were expected to have taken place under the project be undertaken by the Government of Belize and / or other funded projects at the earliest opportunity.

(iv) Coastal Zone Education and Public Awareness.

The major activity carried out under this sub-component was the co-sponsorship of a six-day mangrove education and training workshop on Blackbird Caye, Turneffe Islands Atoll. The workshop was aimed at providing teachers from selected high schools, Belize Technical College and the University College of Belize, as well as representatives of the Curriculum Development Unit, information and first hand experience in mangrove ecology. The important role played by mangroves in maintaining the vitality of the fishing and tourism industry, the biodiversity of mangrove systems and the protection afforded against storms were among the topics discussed.

It is felt that the workshop was a major initiative and made a significant contribution towards making the public at large aware of the importance of mangroves and the reasons for protecting them. It is only when regulations are understood and the rationale for their promulgation appreciated that full compliance can be expected.

Although it is envisaged that the activities of the Coastal Zone Management Unit will address education and public awareness, much greater emphasis should be placed on this very important component of coastal zone management.

(v) Staff Training.

An adequately trained staff is vital to the success of any undertaking. Amendment V addressed this aspect and provision was made for several initiatives.

The long-term training for two Belizeans in coastal resources planning and/or fisheries management did not materialize perhaps because of the slow development of the project.

The short term training in fisheries compliance only got underway in October, 1992 when a two-week program was organized for personnel of the Conservation Compliance Unit. The training was conducted by Mr L. Nicolas Schowengerdt, a consultant with the Food and Agricultural Organization of the United Nations (FAO). This training was funded by FAO.

The shortage of training has reduced the effectiveness of the Compliance Unit in many ways. The Fisheries Inspector in Punta Gorda complained of problems in devising a prosecution strategy and in opposing trained lawyers during hearings of fisheries cases. The Coxswains and Assistant Coxswains in Punta Gorda have very little experience and limited knowledge of boarding techniques and interrogation methods for ensuring optimum results.

Recommendations for future projects

Training

Problems arose in this project in the determination of a consultant agreeable to both parties. These problems were such that in fact NO consultant was employed to undertake some of the components under the Technical Assistance program, which included recommendations for training of personnel. Hence, very little training was undertaken. Critical path analysis of the project would have highlighted the importance of getting a consultant on the ground to perform at least some of these functions.

The problems which arose during the implementation of the project highlighted the dependence on external expertise to carry out most of the planned training programs. Factors entirely external to the project (Hurricane Andrew) impacted negatively on the project.

Special attention should be made to the implementation procedure where external consultants are being employed to make recommendations and plans to be implemented under the project. Critical path analysis methods should be used to determine the timeliness of each component of the project on which a later component depends.

Coordination

It is important that coordination with other agencies carrying out training programs in association with other projects in the same Department be maximized. There is a need for greater utilization of expertise available within the country, from both the private and public sectors and within non-governmental agencies (NGOs).

It is strongly recommended that an assessment of the training needs of the entire Fisheries Department be undertaken and the training components of all externally-funded projects be reviewed in order to determine those training needs not being addressed.

(vi) Conch Hatchery.

Over the past two decades, conch landings and exports have declined from well over a million pounds of market-cleaned product in the 1971/72 fishing season to an average of just over 300,000 lbs over the past five years. In value this represents a loss in earnings equivalent to $3 million.

The marked decline in landings is attributable to significant reduction in stock size. This has been brought about by very heavy fishing pressure by both Belizean fishermen and persons from the neighbouring Central American Republics who make frequent incursions in Belizean waters illegally.

The conch hatchery is expected to produce large numbers of juvenile conch in order to restock depleted areas and reverse the downward trend in conch population.

The present Director of the hatchery, Mr. Mauro Gongora, appears to be doing

a fair job although his effectiveness could be greatly enhanced with additional training and international exposure. Apart from two weeks attachment training at the hatchery in the Turks and Caicos Islands and a week attachment to a facility in Marathon, Mr. Gongora's "training" has been limited to attending a Queen Conch Workshop in Caracas, Venezuela and meetings of the Gulf and Caribbean Fisheries Institute in 1991 and 1992. It appears that Mr. Gongora has adequate knowledge of conch larviculture as well as the methodology of culturing common micro-algae. He seems to have very little experience in testing techniques for, and treatment of, bacterial contamination.

One of the problems facing the hatchery is that of high mortality of juveniles on release. It appears that very heavy predation takes place and a large percentage of the conch are eaten within a few days. Efforts should be made to address that problem in order to ensure meaningful replenishment of stocks. In addition, the numbers of juveniles produced need to be increased.

Spawning of conch takes place generally from late March through late November with a peak in July. This means that, for approximately four months of the year, egg masses are not available and larviculture is not possible. Conch hatchery staff would like to spend that time doing stock assessment, but they lack the basic equipment to do so. On occasion, needed equipment is borrowed from Hol Chan Marine Reserve. The conch hatchery owns a 24 ft skiff but no engine. Staff members are currently using a 60 h.p. Yamaha borrowed from Hol Chan.

The hatchery seems to be operating on a very limited budget even though some $90,274 was budgeted under Capital II for 1992/93. The staff comprises only three members . These are Mauro Gongora, the Director, and two technicians, Miguel Alamilla and Martin Alegria. There is no watchman or any form of security. In addition, there is an almost total absence of reference books. At present, the air conditioner, which is absolutely essential for algae culture, is not in working condition. It is to be hoped that it will be repaired before the next conch spawning season. The facility currently uses an oil pump which, in the event of a leak, could cause serious contamination. An air pump is needed.

The cost of operating the conch research unit is far outweighed by the potential earnings in future conch production. An increase in annual production in excess of 1 million lbs with a value of $7.5 million should be achievable with a modest annual recurrent outlay of some $150,000.

Recommendation

More attention should be paid to the provision of assistance to the conch research program in accordance with the original aims of the project. The program's impact is being significantly affected by lack of attention and funding. According to the "Estimates" a provision was made under Capital II for some $90,274. Little of that funding appears to have reached the hatchery. The potential earnings from increased conch harvests as a direct result of the conch research program are in the region of fifty times the input required.

(vii) Glovers Reef Research Facility.

Glover's Reef possesses the greatest diversity of reef types and is the most pristine of Belize's three outer atolls. For those and other reasons, many international conservation organizations are targeting that reef for special study. As a matter of fact, Wildlife Conservation International recently (1990) purchased Middle Cay on the reef.

One of the project's goals is to establish a permanent research facility on that Cay to undertake reef monitoring studies as well as to co-operate with and/or facilitate the international effort aimed at carrying out coral reef investigations in a remote, relatively untouched, environment.

The building is now complete. It is a somewhat modest structure 30 ft x 20 ft., constructed on posts so that the floor is approximately 6 ft above ground level. There are two bedrooms, an office, a show or interpretation room and a fairly large room serving as living room, dining room and kitchen. There is also a very pleasant veranda. It is a wooden structure.

At present, there is a caretaker/handyman on the Cay. The Fisheries Department takes out supplies to him twice per week. Although he has no radio or other means of communicating with the mainland, he appears to be quite satisfied with the arrangements made by the Department of Fisheries. It is to be hoped, however, that the building will commence being put to more productive uses shortly.

Recommendation

The recently-completed facility at Glover's Reef could prove to be very useful in facilitating coral reef research by providing a ready made base for scientists and researchers. It is recommended that the Government of Belize / USAID investigate mechanisms whereby the use of this facility be maximized.

VI. COMMODITY PURCHASING

Given the time constraints and lack of information, the implementation of this component of the project has been extremely successful. As indicated above, it is difficult to obtain adequate information on specifications, manufacturers, etc., of specialized equipment in Belize, in particular in the form to satisfy the requirements of international aid agencies (eg. three quotations). The process of obtaining those detailed specifications takes time and is frequently a hit and miss process making use of personal contacts.

The process of justification for the purchase of each item and the decision by the agency to fund the purchase of a particular piece of equipment does not always appear rational. The issue of the type of radios supplied with the five Conservation Compliance Unit boats is an example. The Fisheries Department requested that the boats should be equipped with both VHF and SSB radios. The personnel in USAID did not approve the purchase of SSB radios at the time the boats were ordered and the boats were supplied with VHF radios, which have a very limited range without a proper base station installation. This has resulted in the boats operating without adequate radio contact with their bases, especially in the case of the Punta Gorda CCU which does not have its own base office facilities.

The provision of advances to purchase smaller items of equipment was delayed by an outstanding issue elsewhere in the overall CAC project which was not immediately resolved.

The approval and funding process even for the purchase of relatively small items is time-consuming. A request is submitted by the Fisheries Department to USAID for funds to purchase X items. Approval and a cheque for the amount requested (assuming all items are approved) is forwarded to the Fisheries Department in Belize City (up to 21 days). That cheque is then forwarded to the Ministry in Belmopan to be deposited. A request is then made by the Ministry to the Ministry of Finance for permission to issue a Departmental Warrant (if the Ministry has funds already in its Vote Control Book) or a request for release of funds is made to the Ministry of Finance (up to 21 days). When such permission is received, a Departmental Warrant is issued to the Fisheries Department with approval to incur expenditure. The Fisheries Department is then able to issue purchase orders. (The extreme is one such request for funds which took eleven weeks to pass through the system to the point of the Fisheries Department being able to begin expenditure.)

Recommendations for future projects

The streamlining of release of funds to the end user in the project is essential. Care in selection of signatories (who do not travel outside the country for extended periods) for checks/accounts is one element. Prior agreement should be reached with the Ministry of Finance for the release of funds to the Ministerial level on an annual or quarterly basis within the projects workplan estimates. The Ministry then being authorised to release the funds to the Departmental level on receipt of funding for specific items from the donor agency (USAID) (which is deposited to the project financial subhead).

At least one other international agency (UNICEF) has set up, by agreement with the Government of Belize, district bank accounts under the direct control of district-level personnel for utilization of project funds for generally-approved expenditures. Such accounts are topped up periodically on receipt of expenditure justification claims.

Where a Project Manager is employed to administer a project then financial procedures can be more easily simplified.

VII. STRUCTURE AND STAFFING OF THE FISHERIES DEPARTMENT

The Fisheries Department has an established staff of 17 persons, headed by the Fisheries Administrator and including a Senior Fisheries Officer, a Fisheries Officer and two Assistant Fisheries Officers.

The functions of the Department are:

a) administration of fisheries laws
b) basic and industry related research
c) quality control of marine produce
d) training, demonstration work and administration of modern technology to fishermen and fish processing establishment
e) protecting the marine environment.

To carry out these functions, the department has an operating budget of $371,625 (BZE) of which $210,705 (BZE) is to meet salaries etc.

There have been only nominal increases in the budgetary provision for the Fisheries Department over the last three financial years in the Recurrent Budget of the Government of Belize. The counterpart funding to provide for the operational element of the CAC Fisheries project has therefore been financed from the Capital element of the government budget.

A capital budget of $1,701,407 was provided from local funding sources [in addition to a capital budget of $1,070,353 from foreign sources (excluding the CAC project component)].

The capital budget includes staffing components which effectively bring the total staff to 42 persons. The major portion of these additional staff is in the Conservation Compliance Unit to which the CAC project provided five boats and some equipment. These staff are unestablished and therefore are unable to undertake certain functions which would normally be required of them in their respective posts. The principal constraint is in financial matters. No member of the Conservation Compliance Unit staff stationed in Punta Gorda can be eligible to control any funds for the Government of Belize nor issue purchase orders for even small items, apart from fuel orders. Hence the purchase of spark plugs, for example, creates a problem. If the officer in charge, who is nominally an "Assistant Fisheries Officer", was in fact in an established post, the irregularities that have occurred to maintain the operational capabilities of the unit would not have resulted . (See Coote & Associates report at Appendix I).

The operational expenditures have therefore to be administered totally from the Fisheries Department office in Belize City.

The administration of the Fisheries Department leaves much to be desired. No proper filing system exists as in other government departments with minute sheets, tagged and numbered documents in the file under the control of a filing clerk. Hence the files in existence are a disordered jumble of papers not in sequence without references as to action taken or decisions made. On the accounting side, a second First Class Clerk, responsible for the accounts, has recently (October 1992) been added to the Department . The accounting of expenditures under the CAC project

directly under the control of the Department are up-to-date although some inconsistencies exist because of the system of a Control Vote Sheet and three sub-project Vote Sheets. Every voucher has therefore to be entered twice.

Some of the problems associated with the administration of the Department can be attributed to the small size of the Department and the small number of established senior staff to whom functions and duties can be delegated without infringing on Government rules and regulations. The physical size of the building and the small cramped offices also inhibit the efficiency of the Department. Additional offices are currently under construction. In the case of the Punta Gorda Conservation Compliance Unit, the lack of separate office and store accommodation inhibits the operational efficiency of the unit. It is reported that new facilities are in process and construction is scheduled to begin shortly.

The personnel appointed to the Punta Gorda unit of the CCU, although capable of performing the assigned functions, were not those recommended by the interviewing panel. It is assumed that when these posts are included in the "Establishment", in accordance with Public Service Regulations, the Public Services Commission will carry out interviews before any appointments are made. It is possible that not all those currently employed will be transferred to the Established posts which they currently nominally hold.

The earliest possible regularization of the position of the staff of the CCU is recommended. Once that is completed, the operational efficiency of the Department should improve. Delegation of authority and responsibility will enable smoother functioning of the respective sections of the Department. Upgrading the posts of the administrative support staff would relieve the Fisheries Administrator of some of the day-to-day functions and responsibilities of the administration of the Department.

The Fisheries Department has responsibility for the full extent of Belize's Territorial waters and Economic Zone. Belize cannot afford the personnel and equipment necessary to fully police that zone. The addition of the Conservation Compliance Unit has greatly extended the Department's operational capabilities and together with other Government Departments (Customs, Maritime Wing, Police etc.), it has the capability of surveillance of the in-shore fishing zones and those adjacent to the reef and atolls. The addition of adequate communications capabilities (both open and secure) between its boats, on-shore bases and associated government

departments are essential not only for its functioning but also for the safety of its personnel (as recommended by Causey - see Appendix II).

The introduction of the new fishing license and the associated development of a computer database, which could be accessed rapidly by radio from the boats of the CCU, would do much to improve the monitoring of those fishing in Belizean waters. The proposed mechanism of issuing licenses in district towns will negate the use of other forms of temporary documentation prior to the required visit to the Fisheries Department in Belize City.

Recommendations

Establishment of Staff

It is extremely important that the staff of the Conservation Compliance Unit be taken onto the "Establishment" under the standard Public Service terms and funded from the Recurrent component of the national budget. Such staff are carrying out duties which are similar to those of Customs, Immigration and Police staff with a similar degree of danger. They should not be expected to be employed under any less conditions of service (as they are at present).

Equipment and Maintenance

The necessary radio equipment should be supplied immediately and the boats should be brought back up to standard and a regular maintenance and repair schedule be set up. The structural/design faults in relation to the canopy components and the trim tabs should be immediately rectified.

VIII. RELATED EXTERNALLY-FUNDED PROJECTS

Apart from the Commercialization of Alternative Crops (CAC) Amendment Project of USAID, in which assistance is being provided to the Fisheries Department and for which this evaluation is being conducted, there is currently only one other donor-funded activity that relates to the USAID-funded work as outlined in the CAC project documentation. This regional program, the CARICOM Fisheries Resource Assessment and Management Program (CFRAMP), includes twelve CARICOM countries and is funded by Canada and the Caribbean Community and Common Market (CARICOM). An application for funding of an integrated coastal zone management plan has been made by the Government of Belize to the Global Environmental Facility program of the World Bank/UNDP and as such, details of this application is also given in this section although project approval has not been announced as yet.

(a) CIDA/CARICOM funding for CFRAMP

The goal of CFRAMP is to promote the management and conservation of fishery resources of CARICOM countries to permit their exploitation on the basis of sustainable yield. The program, expected to be eight years in duration, will attempt to achieve its goal by enhancing the basic information and institutional capacity necessary to manage and develop fishery resources in the CARICOM region. With a program budget of approximately $ 21 million (Canadian), the program is not intended to address all components of fisheries management, but to complement on-going activities and initiatives such as monitoring, control and surveillance; fish production and marketing; within CARICOM and thereby establish the basis for a complete regional program. The program is principally designed to target fisheries management institutions of the CARICOM region: national fisheries divisions; and regional research and management institutions such as the CARICOM Secretariat, the University of the West Indies and the Fisheries Unit of the Organization of Eastern Caribbean States (OECS).

The magnitude of the outputs from CFRAMP are expected to be substantial and include the following:

- enhanced national fisheries administration in all CARICOM countries, including: fishery management plans, active licensing/registration systems, data collection systems, community participation mechanisms, and fisheries advisory mechanisms;

- twelve university graduates specializing in fields related to fisheries management such as Fisheries, Biology and Economics;

- twelve diploma graduates;

- enhanced effectiveness of CARICOM member states' Fishery Division staff through non-formal training;

- adequate biological, sociological and economic data available on CARICOM fisheries to permit provision of management advice;

- increased fishing community awareness of, and participation in, fisheries management.

Given the regional nature of the program, a breakdown of its costs on a per country basis is not readily available however, total expenditures among the twelve countries are estimated to be $ 5 million for administration, $ 2 million for management sub-projects, $ 1.5 million for training, $ 6.5 million for assessment sub-projects, with the remainder of the funds being used for monitoring and evaluation, inflation and contingency, and executing agency costs.

CFRAMP has identified two major constraints to the overall success of the program and it is appropriate to give them in this report. They are, the Member States' will to actively manage the fisheries sector and secondly, the ability of participating countries to deploy the resources needed for successful implementation of the program. While mechanisms have been built into the review process to address these issues, the level of any country's participation, and the resulting benefits which may be gained as a result of that participation, is determined primarily by the appropriate Department and Ministry within the Government of that country.

As a participating country in CFRAMP, Belize's ongoing activities in monitoring, control and surveillance, as provided by the Coastal Conservation Unit, funded by USAID, significantly complement CFRAMP's activities in Belize.

(b) Global Environmental Facility funding from the World Bank/UNDP

The recent submission by the Ministry of Agriculture and Fisheries to UNDP under the Global Environment Facility funds to provide financial assistance of US $ 3 million dollars for the sustainable development and management of biologically diverse coastal resources is expected to receive approval in early 1993. This five-year project aims to develop the capabilities of the Coastal Zone Management (CZM) Unit to manage and conserve the country's coastal resources through institutional strengthening, introducing adequate monitoring and planning techniques, conducting applied research, and increasing public awareness of the value of coastal ecosystems.

The magnitude of the outputs from this project are considerable and include:

- national coordination across multi-sector boundaries;

- eight university graduates in areas relating to coastal zone management;

- adequate ecological, sociological and economic data available on the coastal zone to guide national decision making;

- community awareness/participation in the coastal zone plan;

- long-term sustainability of the activities of the CZM Unit in Belize.

In achieving the above , it is estimated that approximately $ 1.3 million will be expended on institution development and management, $ 0.5 million on training and education, and $ 1 million on monitoring and research. As with CFRAMP, success of the project requires political will and allocation of appropriate resources, an adequate number of eligible candidates for training and, recipient contribution being phased in on a timely basis.

(c) Other sources of funds

Other donor-assisted activities which provide assistance, both direct and indirect, to the Fisheries Department, have focused primarily on coastal resources management. These include: personnel support to the Coastal Zone Management Unit from Wildlife Conservation International; technical assistance by IUCN to draft a planning document for the integrated management of the coastal zone; assistance under USAID's Regional Natural Resources Management (RENARM) Projects in the planning process for the conservation of Belize's Barrier Reef; assistance under the Tropical Forestry Action Plan in the setting up of guard stations in areas that will allow for monitoring of activities along the coast and in coastal protected areas; technical assistance from CEHI in coral reef monitoring techniques and water quality analysis; and, assistance from UNDP/FAO in remote sensing.

IX. SUMMARY OF RECOMMENDATIONS

The following recommendations are made as a result of the evaluation carried out by the consultants:

Recommendation for Future Projects:

Project Coordinator/Manager

A project of this size, although relatively small in international funding terms, targeted at a department or agency with such a small number of professional staff, requires a qualified/experienced project manager to be appointed immediately after the funding agreement is signed. The terms of reference for the post should include facilitation of the conditions precedent, preparation of detailed work plans and detailed financial projections for the project, purchasing/ordering of equipment and supplies, and implementation of the project. As such, the project manager must be given the necessary authority to carry out that task. It might not be necessary for the project manager to be in post for the entire project life. It could be designed so that a counterpart established post takes over the final stages of implementation of the project (after all equipment is ordered, training programs established etc).

Purchase of Machinery and Equipment

Where specialized machinery or equipment is included in a project of substantial value, then consideration should be given to the use of Technical Assistance funds to finance the cost of the Project Manager or a technical member of staff travelling to the USA to source adequate information and detail on the equipment needed so that proper specifications can be written for the central purchasing agency. In addition, consideration might be given to using such travel for the direct purchasing of small items over-the-counter from distributors or manufacturers in the USA.

As an example, the determination of specifications for a laboratory equipped to perform specific functions could be greatly facilitated by the visit of a technical person to a laboratory performing those same functions. In that way an element of training could be combined with the detailing of specifications for equipment. (Catalogues and brochures do not detail the problems in using equipment on a daily basis nor the compatibility with other associated equipment.)

Purchase of stock spares/replacement parts

Provision be made for the inclusion of a percentage of the purchase price of any major item for routine operating spares/replacements and other manufacturers recommended spare parts to be supplied by the manufacturer/agent along with the equipment to establish a stock of those spares which is then maintained from counterpart operating funds (as provided by some donor agencies - eg. UKAID).

Training

Problems arose in this project in the determination of a consultant agreeable to both parties. These problems were such that in fact NO consultant was employed to undertake some of the components under the Technical Assistance program, which included recommendations for training of personnel. Hence, very little training was undertaken. Critical path analysis of the project would have highlighted the importance of getting a consultant on the ground to perform at least some of these functions.

The problems which arose during the implementation of the project highlighted the dependence on external expertise to carry out most of the planned training programs. Factors entirely external to the project (Hurricane Andrew) impacted negatively on the project.

Special attention should be made to the implementation procedure where external consultants are being employed to make recommendations and plans to be implemented under the project. Critical path analysis methods should be

used to determine the timeliness of each component of the project on which a later component depends.

Financial Procedures

The streamlining of release of funds to the end user in the project is essential. Care in selection of signatories (who do not travel outside the country for extended periods) for checks/accounts is one element. Prior agreement should be reached with the Ministry of Finance for the release of funds to the Ministerial level on an annual or quarterly basis within the projects workplan estimates. The Ministry then being authorised to release the funds to the Departmental level on receipt of funding for specific items from the donor agency (USAID) (which is deposited to the project financial subhead).

At least one other international agency (UNICEF) has set up, by agreement with the Government of Belize, district bank accounts under the direct control of district-level personnel for utilization of project funds for generally-approved expenditures. Such accounts are topped up periodically on receipt of expenditure justification claims.

Where a Project Manager is employed to administer a project then financial procedures can be more easily simplified.

Recommendations Specific to Amendment V:

Conservation Compliance

The recommendations made by Coote, (June 1992) (see Appendix I) should be implemented immediately. The proper establishment of base facilities in Punta Gorda and the supply of radio equipment (as recommended by Causey, 1992) (see Appendix II) is essential to the functioning of the unit and the safety of its personnel.

Licensing

It is recommended that the amendment to the Fisheries Regulations necessary to introduce the proposed licensing system be signed and brought into force immediately to coincide with the renewal of the boat licenses and fish exporter's licenses due January 1993.

The establishment of a licensing data base on one of the computers supplied to the Fisheries Department by another project (CFRAMP), should be undertaken immediately.

Training

It is important that coordination with other agencies carrying out training programs in association with other projects in the same Department be maximized. There is a need for greater utilization of expertise available within the country, from both the private and public sectors and within non-governmental agencies (NGOs).

It is strongly recommended that an assessment of the training needs of the entire Fisheries Department be undertaken and the training components of all externally-funded projects be reviewed in order to determine those training needs not being addressed.

Conch Hatchery

More attention should be paid to the provision of assistance to the conch research program in accordance with the original aims of the project. The program's impact is being significantly affected by lack of attention and funding. According to the "Estimates" a provision was made under Capital II for some $90,274. Little of that funding appears to have reached the hatchery. The potential earnings from increased conch harvests as a direct result of the conch research program are in the region of fifty times the input required.

Reef Monitoring

It is strongly recommended that the activities that were expected to have taken place under the project be undertaken by the Government of Belize and/or other funded projects at the earliest opportunity.

Glover's Reef Research Facility

The recently-completed facility at Glover's Reef could prove to be very useful in facilitating coral reef research by providing a ready made base for scientists and researchers. It is recommended that the Government of Belize / USAID investigate mechanisms whereby the use of this facility be maximized.

Establishment of Staff

It is extremely important that the staff of the Conservation Compliance Unit be taken onto the "Establishment" under the standard Public Service terms and funded from the Recurrent component of the national budget. Such staff are carrying out duties which are similar to those of Customs, Immigration and Police staff with a similar degree of danger. They should not be expected to be employed under any less conditions of service (as they are at present).

Equipment and Maintenance

The necessary radio equipment should be supplied immediately and the boats should be brought back up to standard and a regular maintenance and repair schedule be set up. The structural/design faults in relation to the canopy components and the trim tabs should be immediately rectified.

X. CONCLUSION

During the implementation of the project, several problems were encountered which resulted in it getting off to a late start. As a result, a number of sub-components have not been completed and the expected impact of the project not fully realized. It is hoped that the difficulties encountered and the methods used, and subsequently recommended, to overcome them provide useful lessons to USAID and the Fisheries Department. In this way, the design and implementation of future projects will be influenced in a manner that enhances their chances of providing maximum benefits. Greater care in the design stage of the project, especially in relation to the expected input of the few professional staff within the recipient Department who have other full time responsibilities, would have avoided some of the obstacles encountered and improved the level of implementation of the project.

The one successful component of the project is the establishment of an operational Conservation Compliance Unit. The Unit is already having a visible impact on the level of illegal fishing in Belizean waters. The fishermen themselves are making favourable comments about the Unit and its operations.

APPENDIX I

REPORT ON INSPECTION OF FIVE BOATS HANDED OVER TO THE MINISTRY OF FISHERIES BY USAID FOR CCU

1.0 TERMS OF REFERENCE

Coote and Associates was contracted by the United States Agency for International Development to perform technical services which encompassed auditing the management and use of USAID funded boats, engines and trailers purchased for the Fisheries Department Conservation Compliance Unit. As laid out in Purchase Order no. 505-0000-0-00-2064, the desired field work was to be completed within five work days, the work being undertaken by two individuals.

2.0 EXCECUTIVE OVERVIEW

The five boats and engines were found to be in good running condition. The trailers were also in good condition. The general fault of the boats was as follows: the G.P.H. (gas per hour) not operational also the trim-tabs not working on all except one. Four of the spotlights were not working and the radios even though working were not effective under all conditions. (see detailed report)

3.0 SUMMARY OF FINDINGS

A detailed report regarding maintenance, servicing, record of runs, shortfalls can be found under other sections of this report.

4.0 PERIOD REVIEWED

The period reviewed was from February, 1992 to June, 1992 where possible. The five boats were delivered in February, 1992 and the management auditing (field work) was completed on June 30, 1992. (24-30/6/92)

5.0 SOURCE OF INFORMATION

Information was received from USAID office, Fisheries office Belize City and Fisheries office, Punta Gorda.

6.0 DOCUMENTS EXAMINED

The following documents were examined:

- *(a) Invoice from ANSWER MARINE CORPORATION detailing cost and description of each boat, engine and trailer (USAID)*
- *(b) Unclassified memorandum dated January 17, 1992 from Jeffery H. Allen, NRO to George E. Like ADO (USAID)*
- *(c) Log Books for each boat (Fisheries Dept.)*
- *(d) Manuals on trim-tabs (Fisheries Dept.)*
- *(e) Manuals for engines (Fisheries Dept.)*
- *(f) Copy of a report from Coordinator to Fisheries Administrator(internal use document)*

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7.0 PERSONS INTERVIEWED

(1)	Mr. George E. Like	(USAID)	
(2)	Mr. Fred Hunter Jr.	(USAID)	
(3)	Mr. Vincent Gillett	(Fisheries Administrator)	Bze.
(4)	Mr. Ulric Usher	(Asst. Fisheries Officer)	Bze.
(5)	Ms. Beverly Wade	(Coordinator)	Bze.
(6)	Mr. Robert Vernon	(Coxswain)	Bze.
(7)	Ms. Natalia Thomas	(Coxswain)	Bze.
(8)	Mr. Charles Young	(Mechanic)	Bze.
(9)	Mr. Hector Cunningham	- Asst. Coxswain	Bze.
(10)	Mr. Martin Lino	- Asst. Coxswain	Bze.
(11)	Mr. Michael Norales	- Fisheries Officer Inspection	P.G.
(12)	Mr. Jabo Requena Jr.	- Inspector	P.G.
(13)	Mr. E. Requena	- Coxswain	P.G.
(14)	Mr. R. Foster	- Coxswain	P.G.
(15)	Mr. E. Avila	- Asst. Coxswain	P.G.
(16)	Mr. R. Arzu	- Asst. Coxswain	P.G.
(17)	Watchman		P.G.

8.0 LIMITATIONS

Due to terms of the contract our period of observation was limited to three days at Belize City and two days at Punta Gorda.

9.0 METHODOLOGY

The contractors after exaiming the serial numbers on the boats, engines and trailers made trips on each boat to observe first hand the operation and functioning of the boats.

10.0 MATERIALS

Attached to this report are the following:

(i) Report on condition of the five boats
(ii) Detailed report on the five boats. Annex VI
(iii) Photocopy of complete log books from each boat. Annex I-V
(iv) The table of Daily Use and Daily Hour Run was attempted from the log books being the only records available. Annex VII-XI
(v) Monthly project/Patrol plans and suggested log book entries. Annex XII & XIII.

11.0 FINDINGS

Belize City - (1) There is a vacancy of 1 Asst. Coxswain. It is understood that the post will be filled sometime in July, 1992.
- (2) The three boats were not fully utilized due to the lack of a coxswain who was in Canada on study leave and has recently returned.
- (3) The meter GPH is not working on all five boats. Trim-tabs are not operational on

four of the five boats.
- (4) Four of the five spotlights are not working. It is understood that the bulbs will be replaced.
- (5) The 24' trailer for Punta Gorda is still in Belize City.

Punta Gorda - (1) There is no fuel order book in place.
- (2) A need exists for a vehicle to tow and launch the boats.

12.0 RECOMMENDATIONS

1. It is recommended that the coxswains and assistant coxswains be given intensive training in all aspects of the work. Use should be made of seasoned captains in the training program.
2. A vehicle should be posted in Punta Gorda(preferable a 4X4) so that the boats can be taken out the water.
3. The 24' trailer, now in Belize City, should be sent to Punta Gorda immediately.
4. Steps should be taken, in the very near future, for someone to be authorized to sign fuel orders in Punta Gorda. Also authority for an officer to sign vouchers and cheques on behalf of the Fisheries Administrator.
5. The log books should be ammended immediately to give effect to the recommended changes and that authorizing officers be designated. See sample of logbook
6. That records be maintained to record the decisions made weekly with respect to boat patrols.
7. That statastical performance of the boats be included in the monthly reports prepared by the coordinator such as hours run per boat, fuel and oil used, place visited, findings, financial costing, reasons for non-performance.
8. That three antennas with longer range be purchased for the boats in Belize City.
9. That every effort should be made by the Fisheries Department to have the trim tabs and the G.P.H. meters operational also the four weather-proof spotlights that are not presently operational. That the spotlights be properly secured to withstand the tossing of the boats.
10. That a file be opened for each boat which should indicate its performance, repairs and cost of repairs, monthly average of gas and oil used by each boat with comments of any unusual average or boat performance, servicing and maintenance.
11. It is recommended that local technicians be engaged to effect the repairs needed mentioned in 9 above.

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PUNTA GORDA/BELIZE CITY - FISHERIES DEPARTMENT

10.01 GENERAL

On a whole the boats are performing satisfactory except for the G.P.H.(gas per hour) on all boats and the R.P.M. on no. 5. The G.P.H.(gas per hour) never worked, possible it was never connected. The aluminium framed tee top on both 21 footers needs reinforcing although cracks on the joining were repaired, one of the boats cracks are again surfacing.

It was understood that the mechanic was expected to make monthly inspection at Punta Gorda. So far only two inspections were made.

The coxswains and assistant coxswains on the vessels appeared very keen and showed interest in their job. Except for the two coxswain in Punta Gorda the others are comparatively young and could do with some local navigational training. The two coxswains in Punta Gorda are experienced seamen one being a licenced captain and the other experienced in the Southern Costal Water. As for logging and reporting there was much to be desired. There were no files available for each boat. The boats were locally numbered 1 to 5 in the log books. These numbers were not inserted on the boats.

The program of work was more word of mouth than written. Meetings were held once a week to decide on the patrols to be carried out however the only writing was done by the assistant fisheries officer who made notes.

10.02 Punta Gorda

Staff - There are 6 people who work on the boats provided by the Government of Belize.

Michael Norales	- Fisheries Officer - Inspector
Julio Requena Jr.	- Inspector
E. Requena	- Coxswain
R. Foster	- Coxswain
E. Avila	- Asst. Coxswain
R. Arzu	- Asst. Coxswain

In addition there is a clerk and three watchmen. Each boat is crewed by a coxswain and assistant coxswain.

10.03 Work Program - The program of work is decided weekly by the fisheries officer on an ad hoc basis. There is no written instructions to the inspector/coxswains - except for notes entered in the fisheries officer notebook. Each boat is expected to work three days in the week at a minimum of eight hours and on alternate week ends and when the need arises due to information received.

On each inspection the required personnel on each boat should be the inspector/fisheries officer, crew and possible a policeman or B.D.F. The procuring of a policeman or B.D.F. is difficult as a consequence the fishery people are concerned as to their protection as no one on the boat is armed and only the inspector has the power of arrest or detention.

While accompanying the CCU personnels on a tour of inspection it was observed that in the space of seven hours on the sea, four islands arose the attention of the fisheries personnels and were visited. A fishing net was seized for too small a mesh. Four fishing boats were accosted, resulting in one being warned for a summons as they were found with lobsters.

10.04 Maintenance

Boats are cleaned out after every patrol. The boat bottoms are cleaned once every two weeks out at the cayes when on patrols. This has just started recently as it was understood the boat bottoms were green with moss. The boats were clean at time of inspection June 24, 1992. Maintenance of the outboard motors were done on the visit of the mechannic.

It was understood that two Government departments had boats stationed in Punta Gorda, the B.D.F. and the CCU. There is no doubt that the CCU boats have been used to assist other government departments e.g. Police and Medical as indicated in the log books. The fisheries officer concurred that request from other government departments were frequent enough and he assisted if the request could be filled in with the patrols. It is noted except for two instants that all the trips logged were patrols. Of concern was the fact that the payment for services done by individuals not in the public sector eg. launching, hauling up and carrying gas was paid for by barter. Gas being given in lieu of cash. Depending on the public for this sort of service could well end up in a hand wash hand basis.

10.05 Boats Performance

Both boats in Punta Gorda performed well on the sea . The instruments on the 21 footer were all working except for the G.P.H. and clouding of the hour meter. The 24 footer's marine battery was not holding its charge. A local battery was purchased to replace it. The hour meter has just recently began to work showing a total of 903 hours. It was understood this meter had not been working for some two months. The stern of this boat showed a few nicks said to have been caused because of being located near the wharf and subject to buffing from high seas and other boats. The trim tab on this boat was not working nor was the R.P.M. indicator. The spotlight was in Belize City - this was confirmed.

10.06 Recordings

There was no recording of each patrol to enable to give a complete narrative of the project from its inception to date except for log books which were not properly kept.

10.07 Log Books

It was difficult to determine how much fuel was used for each boat. Fuel was bought in containers as much as 54 gallons to a container. The boats were filled up and the remainder kept in containers on the boat. It was also understood that fuel was used as means of payment when purchasing, launching and hauling up the 21 footer to an approximate amount of 175 gallons. During the month of June 367 gallons of gas at a value of $1,746.63 duty paid and $412.5 gallons duty free were purchased.

10.08 Financial

The Fisheries officer in Punta Gorda had no means of meeting pecuniary expenses. As a consequence, these expenses were met from out of pocket e.g. purchase of battery and most irregular the payment of services by kind. (gasoline)

10.09 Belize City

Staff consists of 11 personnels

- 3 - Coxswain
- 2 - Asst. Coxswain
- 1 - Asst. fisheries officer
- 1 - Mechanic
- 2 - Inspectors
- 1 - Coordinator
- 1 - Bookeeper

A vacancy exists for the post of assistant coxswain. The mechanic is expected to visit the Punta Gorda station monthly or as emergencies arise.

10.10 Work Program

At the beginning or end of each week the fisheries administrator and the assistant fisheries officer meet to arrange the program for the week based on three patrols per week. Based on the decisions notes are made by the assistant fisheries officer in his notebook. This is the only record kept of the arranged program. The program is designed to follow the following schedule:

Three patrol days per week per vessel minimum

Two patrol days on alternate weekends per vessel. The areas expected to be visited are any of the outmost atolls once every five days e.g. Glovers Reef and Lighthouse Reef. Rivers and bar mouths once per five days between 4:30 pm - 7:30 pm. The other visits are to be made around the various cayes, from the Southerly Stann Creek area to the utmost northerly cayes. The schedule is subject to change pending intelligence information which would lead to specific locations.

On each inspection the required personnel on each boat should

consists of an inspector, coxswain and assistant coxswain and whenever possible a policeman or B.D.F. There is concern by the fisheries people as to their protection as the norm was not to have the police or B.D.F. on board.

10.11 Performance of Boats

The three boats in Belize performed well during inspection, it must be pointed out that and the sea was comparatively calm. However it was observed that other trips were made during heavy seas. The trim tab which gives balance to the boats were not working on any of the three boats. Most of the control instruments were working except for the G.P.H. (gas per hour) meter.

10.12 Maintenance

The boats were cleaned out inside after every patrol. Oil is changed every twentyeight days. Plugs are changed every two months. The engines are flushed out every two weeks.

COOTE & ASSOCIATES

APPENDIX II

RECOMMENDATIONS FOR TRAINING OF

THE

BELIZE CONSERVATION COMPLIANCE UNIT

by

BILLY D. CAUSEY
SANCTUARY PROJECT MANAGER
FLORIDA KEYS NATIONAL MARINE SANCTUARY

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RECOMMENDATIONS FOR TRAINING OF THE BELIZE CONSERVATION COMPLIANCE UNIT

INTRODUCTION

In April of 1992 Mr. Fred Hunter of the United States Agency for International Development (USAID) in Belize contacted me regarding a new resource protection program that his agency was assisting the Government of Belize in establishing. The program is the establishment of a Conservation Compliance Unit (CCU) that will be charged with the task of enforcing conservation of the coastal zone natural resources of Belize. Mr. Hunter was familiar with the interpretive law enforcement program that we had established in the National Marine Sanctuaries of the Florida Keys and asked if I could offer assistance in establishing such a program in Belize.

After receiving approval to commit to the project, I contacted Mr. Hunter and we agreed that the first step would be for me to personally travel to Belize and patrol with the newly formed CCU. I traveled to Belize during the week of June 8 to the 13th and accomplished this task.

PROJECT SIGNIFICANCE

Very few countries along the Caribbean coast of Central America have committed to this level of protection for their natural resources. Considering that the fisheries stocks of Belize are up-current of the Florida Keys fisheries, lends an advantageous perspective of this project to the long-term protection of our marine resources in the United States. Our vision of future resource protection has to include international agreements, particularly where they are so relevant to the success of our management goals. I see such international projects as an investment in the future of our fisheries stocks, as well as enhancing those of our neighboring countries.

TRIP REPORT

The following is a chronological sequence of events during my visit to Belize.

June 8, 1992 - The first day was devoted to travel from Marathon, Florida, to Belize City, Belize. After arriving in Belize I met with Mr. Fred Hunter and Mr. George Like of the United States Agency for International Development

(USAID). They briefed me on the project and explained some of the objectives for my visit.

Mr. Fred Hunter and I met with Mr. Vincent Gillett, Director of the Fisheries Department, to discuss the objectives of my visit and to solicit his opinion on how to maximize my time on the project. We arranged a schedule for the week and Mr. Gillett pointed out several specific areas that he wanted me to include in my observations and final recommendations. Those included:

1. Information and evidence gathering techniques, including surveillance and monitoring.
2. Chain of custody for evidence.
3. Enforcement training needs.

We agreed that I needed to patrol with the officers of the Conservation Compliance Unit (CCU) and observe firsthand their methods of conducting boardings of fishing boats. Particular attention was to be focused on enforcement techniques, navigational skills, variation in the types of vessels boarded, and logistical problems.

Mr. Hunter introduced me to Mr. Ulric (Ricki) Usher, Assistant Fisheries Officer, the operations manager for the Belize City CCU and Ms. Beverly Wade, clerk and liaison for the CCU. They, in turn, introduced me to the staff of the Belize City CCU which consists of a fisheries inspector, 3 coxswains, 2 assistant coxswains, and a marine mechanic.

June 9, 1992 - Beverly Wade and I accompanied the CCU Officers on a patrol out of Belize City, north along the barrier reef, to Ambergris Cay. The patrol vessel used was a 24' center console Answer, powered by a 200 hp Johnson. The vessel had a re-enforced Tee-Top that supported (at head level) a dry storage box for electronics including: a Raytheos Ray 420 hailer; Raytheon R 20X Raster Scan Radar; and a Raytheon Ray 80 VHF radio. The CCU patrol unit was compromised of:

Fisheries Inspector - Troy Garcia
Head Coxswain - Natlie Thomas
Asst. Coxswain - Hector Cunningham

We boarded several small artisanal fishing skiffs on the patrol to Ambergris Cay. The skiffs were homemade wooden boats approximately 16' in length and powered with 50 hp and under outboard engines. Fiberglass boats of the same design (same 20-22' mold) as those that I have observed in Mexico were used for fishing, dive charters, and transportation from the islands to the mainland.

During the morning patrol we encountered fishermen and conch divers. There were no spiny lobster fishermen because the season was closed. All of

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the scale (or fin fish) fishermen were in pairs and were hand-lining, while the conch fishermen were free diving. The conch divers ventured far from their boats and pulled rafts along with them that held their conch. Since the lobster season was closed, many of the fishermen were onshore building and repairing traps.

According to the CCU Officers, during a routine patrol they encounter a variety of vessel types and origins. Some of the vessels encountered (besides those already described) include:

(1) Artisanal Sailing Skiffs (approximately 24' in length) that commercially fish the length of the barrier reef out of Belize City and San Pedro on Ambergris Cay.

(2) Commercial Dive Charter vessels that range in size from 24' to over 60' in length and operate out of Belize City and San Pedro. The larger vessels take dive trips out to the outer atoll reefs.

(3) Private recreational boats of varying sizes that operate along the length of the barrier reef.

(4) Transient motor and sailing yachts of a broad range of sizes that cruise the length of the barrier reef from both the north and south.

(5) Commercial trading vessels that service the islands.

(6) Alien vessels from neighboring countries to the north and south that are frequently encountered along the barrier reef and offshore atolls.

While on patrol we visited the Hol Chan Marine Reserve near San Pedro and also visited the Reserve's office. We met with Reserve Manager James Azeuta and Peace Corp volunteer Melanie Dotherow and discussed some of their interaction with the CCU. Mr. Azeuta and Ms. Dotherow joined us on the patrol and we ran north to a patch reef called Rocky Point that is being considered for reserve status. We snorkeled the patch reef and later discussed its attributes as a reserve.

On the return voyage, a fish trapper was observed tending traps in the shallow water behind the reef. The CCU boarded his boat and found his papers and licenses were in order, but he had a recently harvested piece of staghorn coral (Acropora cervicornis) in one of his holding boxes. The fisheries inspector confiscated the coral and verbally warned the fisherman not to harvest

stony corals.

Observations of the techniques used by the CCU were made and recorded throughout the patrol. Those are included in the summary of observations and recommendations that accompany this report.

June 10, 1992 - Beverly Wade and I flew to the southern coastal town of Punta Gorda to patrol with the CCU Officers that operate out of that area. Upon arrival we met the CCU staff and we briefed them on the purpose of our visit.

The Punta Gorda CCU is comprised of an Assistant Fisheries Officer; a Fisheries Inspector; 2 Coxswains; 2 Assistant Coxswains; a secretary; and night-watchmen.

Patrol conditions vary significantly from those for the Belize City CCU. Since Punta Gorda is located to the southern end of the country, the CCU patrols are primarily to the north. The patrols are primarily in the Sapadillo Cays that are located along the barrier reef which is approximately 20 miles offshore. One of the major challenges for this CCU group are foreign poachers that fish Belizian waters. Boats from Guatemala and Honduras are frequently encountered fishing the waters of the Hunting Cays. Alien conch fishermen and lobster poachers are suspected to be working these waters on a frequent basis.

The CCU Officers on our patrol were Michael Noralez, Assistant Fisheries Officer; Ernesto Requena, Coxswain; and Rudy Arzu, Assistant Coxswain. Since the frequency of encountering aliens is high in the region, an Immigration Officer and a Customs Officer accompanied us on the patrol.

The wind was blowing in excess of 20 knots and the seas were rough. The boat trip to Hunting Cay (which is located at the southern end of the Sapadillo Cays) took 1 hour and 45 minutes. Very few boats were encountered. We discovered several camp sites that had been occupied by conch fishermen, who were suspected of being alien poachers. Conch kraals, constructed of old shells, were observed on several of the islands. The kraals are used by the fishermen to corral their harvested conch until they are ready to depart.

The CCU Officers in Punta Gorda are confronted with a number of logistical challenges such as the distance of their primarily patrol area from their base of operations, the variation in sea conditions in the southern coastal waters of Belize, and their frequency of encounters with foreigners or alien fishermen.

June 11, 1992 - Beverly Wade and I returned to Belize City. In the afternoon I met with Mr. Vincent Gillett and discussed my observations of the CCU to date. My observations and recommendations are contained in other sections of this report. Following my meeting with Mr. Gillett, I met with George Like of the

USAID and gave him the same briefing that I had given to Mr. Gillett.
June 12, 1992 - Beverly Wade and I accompanied the CCU Officers on a patrol to the south from Belize City. We patrolled along the keys and the barrier reef to Carrie Bow Cay and out to Glover's Reef. The patrol vessel was a 24' Answer, powered with a 200 hp Johnson. The CCU crew included:

Head Coxswain - Robert Vernon
Assistant Coxswain - Martin Pariente

A Fisheries Inspector did not accompany the CCU on this patrol. Transportation to Carrie Bow Cay was provided to Dr. Candy Feller of the Smithsonian Institute, and Jenny Apple, an intern and assistant to Dr. Feller. The passengers and their equipment were dropped off at the Smithsonian Laboratory on Carrie Bow Cay. Carrie Bow Cay was a 2 1/2 hour run from Belize City and Glover's Reef was another 45 minute run offshore. The wind was blowing about 20 knots and there was not much fishing activity.

Several different observations were made during this patrol. A boat load of fishermen that were deploying a gill net were encountered on the reef flat of the barrier reef. Although this gear type is commonly used, I had not observed its use during the patrols with CCU. We did not approach the fishermen because the coxswain was familiar with them and had previously checked their licenses. Several small skiffs of conch divers were observed and one was boarded in the lagoon of Glover's Reef. These conch divers were from Guatemala and had permits to operate in Belizian waters. There were not many boardings on this patrol day.

OBSERVATIONS

Patrols with the CCU Officers provided me with an opportunity to observe navigational skills, boarding procedures, enforcement manner, logistical challenges, and most frequently encountered vessel types. Although I was only able to patrol with the CCU Officers on three separate patrols (days), I was able to make sufficient observations to offer general recommendations for an enforcement training program.

Navigational Skills. The qualifications for selecting CCU personnel (i.e. coxswains, assistant coxswains, etc.) and the interviewing process have apparently been successful in hiring individuals with experience in boat handling. All of the coxswains that I rode with had good boat handling skills and could navigate well in shallow water by reading the water depth. There was, on occasion, some problems encountered in maneuvering along side vessels. Most of these problems were due to high winds during the patrols and not entirely due to a lack of experience.

basic law enforcement skills. I would recommend training in the following areas:

1. Surveillance and monitoring
2. Investigative skills
3. Gathering evidence and maintaining chain of custody
4. Tactics in self-defense
5. Firearm training

Interpretive Skills. The routine encounters of the CCU Officers with fishermen and other boaters seems to be similar to what the Sanctuary Officers experience in the Florida Keys National Marine Sanctuary; an obvious exception, of course, being the potential for encounters with hostile, alien poachers by the CCU. In Florida this threat is replaced by the potential for the officers encountering a smuggler. Regardless, I feel the enforcement philosophy utilized by the CCU Officers could be tailored after that of the National Marine Sanctuary Officers. Sanctuary Officers in the National Marine Sanctuary Program utilize a form of interpretive law enforcement that relies heavily on providing education and information to the public during the performance of their duties. Over time this leads to a better understanding of the need for resource protection, which ultimately leads to a higher level of compliance by those using the resources.

In any conservation program a major objective is to gain compliance with and an understanding for the wise use of the resources by those who utilize and enjoy them. By the inclusion of the term "compliance" in the name of the Conservation Compliance Unit, it is clear this objective has been identified by the Fisheries Department of Belize. In order to achieve this objective the enforcement officers need to possess the necessary skills to interpret the basic concepts of resource protection and sustainable use to the fishermen, divers, and boaters who use the waters of Belize. Interpretive law enforcement training would aid the CCU Officers in the performance of their duties and achievement of their objectives. I recommend the following training:

1. Basic interpretive skills
2. Techniques of applying interpretive law enforcement on the water
3. Identifying interpretive and educational messages

Regardless, some navigation and boat handling training would improve the skills of the CCU Officers. The following training is recommended:

1. Boat handling for routine boardings and defensive and offensive vessel maneuvering skills.

2. Familiarity with rules of the road.
3. Training in the use of electronic navigational equipment such as the Loran C.

4. Navigation, including plotting courses, reading charts, etc.
5. Radio operations, protocol, and procedures.

Vessel Boarding Skills. The CCU Officers observed seem to possess good local knowledge, which is an important hiring criteria. Such knowledge often aids the officers in making the decision as to whether or not to approach a fishing vessel, or most importantly, whether or not to board a vessel. However, even the individuals with the most local knowledge need to be familiar with the procedures that should be followed in conducting a vessel boarding. They should also be familiar with techniques that prevent them from establishing predictable patterns that can be discerned by potential violators. The following training is recommended:

1. Tactics and strategies for vessel boardings, including:

   (a) the identification of potential violators vs non-violators.
   (b) boat-to-boat communications (i.e. identification of CCU, specific messages to clearly communicate to the party on the vessel to be boarded, etc.).

2. Procedures for searching vessels.

3. Hostile boardings / routine boardings.

4. Defusing hostile circumstances.

5. Seizing evidence.

Law Enforcement Skills. Although some of the CCU Officers have training in law enforcement, or experience from the Defense Force, the performance of the CCU Officers would be enhanced through training in some

Boat Maintenance. Although the vessels used by the CCU appeared to be well-maintained, operations would be enhanced if every CCU Officer was familiar with the mechanical functions of the vessels. Especially, if each officer knew the vulnerabilities of the vessels and motors under certain operational conditions. Time did not permit me to get a full understanding of the mechanical experience that each officer possessed, and this may be an area of training that is already being considered. However, specific observations of vessels being operated in very shallow water, where sediment was being picked up by the motor, lead me to consider this training recommendation.

RECOMMENDATIONS

In addition to the observations given above, I have numerous recommendations to offer the Fisheries Department and the USAID regarding this project. There are four categories where I identified specific needs for the CCU and offer recommendations. Those categories are listed below:

1. Boat Equipment
2. Equipment for Officers
3. Training
   - Immediate
   - Short-term
   - Long-term
4. Reports

Boat Equipment. I recommend the following equipment be purchased for the patrol vessels:

1. Large boat bumpers to string along side the patrol vessel to facilitate boardings. These could be secured end-to-end and could be tossed over the side as the Officers prepare to board a vessel.

2. Equip vessels with Loran C.

3. Equip vessels with flashing blue emergency lights to aid in halting vessels.

4. Equip vessels with programmable low-band radio for secure communications and high gain antennas.
5. Equip vessels with safety equipment including:
   - life jackets
   - flare kits

- fire extinguishers
- throw rings
- first aid kits

Equipment For Officers. The following equipment would aid the Officers in the performance of their duties and provide additional safety:

1. Plastic water-proof cases (i.e. camera cases) to hold paperwork and sensitive equipment.

2. Simple, rugged underwater cameras such as the 35 mm Hanimex for photographing evidence, etc.

3. Binoculars

4. Bullet-proof vests for night patrols, especially off Punta Gorda.

5. Firearms (I know these are being ordered) - the Florida Marine Patrol and the National Marine Sanctuary Officers carry 9 mm Glocks, which are rugged hand-guns made primarily of plastic materials.

6. ASP - extendable batons that fit easily on belt.

7. Hand-cuffs

8. Nylon Webbing and nylon cases for firearm, knives, hand-cuffs, and batons.

9. Shield of authority or badges.

10. Establish uniform standards and code.

Training. There are several phases of training that I have identified for the CCU. Earlier in this report I identified, through my observations from patrolling with the CCU, several areas of training that would serve to improve the performance of the CCU. In this section I am recommending an implementation strategy that ranges from immediate to long-term training.

Immediate Training. In my brief experience of patrolling with both the Belize City CCU and the Punta Gorda CCU, it was obvious that both areas have entirely different logistical challenges. It was also apparent that their on-the-water encounters were different, as well as the frequency of encounters.

Several observations lead me to believe that the units would benefit from joint training efforts. I would recommend as an immediate form of training that an exchange program be established between the two units. This would serve several purposes, among which would be to familiarize all of the Officers with the various conditions that exist throughout the country, as well as serving to build commonality and consistency in the CCU.

I also recommend that immediate training in the use of firearms be arranged and a routine system for periodic qualification be established.

In addition, I recommend that training be established in self-defense tactics, possibly using Defense Force Training Officers.

Short-term Training. Initially, I recommend that arrangements be made for two National Marine Sanctuary Officers to travel to Belize and work directly with the CCU Officers. I suggest that one patrol for a full week with the Belize City CCU and the other patrol with the Punta Gorda CCU for a week. On the second week we would have them switch and patrol with the other CCU Officers. Each Sanctuary Officer would have a specific training curriculum and would emphasize training in subjects that would not overlap with the other Sanctuary Officer. Training would include both classroom and on-the-water activities.

Long-term Training. I recommend that we attempt to establish a long-term training program between our operations for both the CCU as well as the Marine Reserves of Belize. We have worked closely with the personnel of Hol Chan Marine Reserve and have viewed the experience as very gratifying. If arrangements were made in advance, it would be possible for CCU personnel and Marine Reserve staff to train directly with Sanctuary staff in Florida. I suggest we explore this option as a long-term training program for not only enforcement, but education and research as well.

Reports. I recommend that the CCU Officers establish a Daily Patrol Log that requires the following information:

1. Date of Patrol.
2. Start Time/Ending Time
3. Starting Engine Hours/ Ending Engine Hours
4. Patrol Officers/CCU Staff
5. Weather Conditions
   - sea conditions
   - wind direction/speed (estimated)
   - cloud cover (% sky covered with clouds)
   - clear/storming/etc
   - Temperature of water and atmosphere

- water visibility along reef

6. Number of boats observed
7. Number of boats boarded
8. Violations observed/ action taken
9. General observations

This information will be useful in establishing a Database for future management efforts. Future patrol priorities can be established based on the trends that are identified from the daily patrol logs. For example, when the wind is blowing out of one direction at a high velocity, the visitation or use patterns may be different than when the wind is blowing from another direction. This example shows how such daily reports can be utilized for establishing patrol schedules.

CONCLUSIONS

The Country of Belize, Ministry of Agriculture and Fisheries, Fisheries Department and the United States Agency for International Development should be commended for this important step forward in the management of the coastal marine resources of Belize. In my estimation, the establishment of the Conservation Compliance Unit is a bold and unprecedented effort to protect the natural resources of Belize, a task that has not been undertaken by many Caribbean nations. I am very pleased to be taking part in such an important program.

APPENDIX III

Attachment 1
PIO/T 505-0000- -

STATEMENT OF WORK

I. BACKGROUND

The USAID/Belize program is in transition to one more narrowly focused on two strategic objectives--improving GOB's use of natural resources and improving the Government's fiscal resources. Several areas of A.I.D. support, including promotion of agricultural diversification, are drawing to conclusion.

One of the major A.I.D.-funded projects in support of agricultural diversification is the Commercialization of Alternative Crops (CAC) Project. The CAC Project was initiated in September 1985 with the purpose of expanding the base of economic activity in Belize by developing alternative agricultural products for export and import substitution, by developing agricultural cooperatives management capabilities, and by protecting the natural resource base. A secondary purpose is to strengthen public sector capabilities to plan and manage natural resource programs in fisheries and land titling. In February 1990, the CAC Project Amendment No. 5 was issued to include activities related to the fisheries sector and to support the Fisheries Department of the Ministry of Agriculture and Fisheries. This Project component was to promote more careful planning of the coastal zone, short- and long-term training for personnel who work in the Government and in cooperatives, and greater awareness by the public about decisions related to the fisheries and coastal resources of the country. Approximately US$800,000 was added to the CAC Project for technical assistance, training, equipment and materials related to fisheries activities. The Project Assistance Completion Date (PACD) for the CAC Project is December 31, 1992.

While USAID has interest in the accomplishments of this assistance to the FD other donors are contributing to the activities of this department. This increased donor support plus the past accomplishments of USAID financed work of the FD could have implications for USAID's ongoing program in the area of natural resource management. In addition, USAID's Program Objectives Document for 1992-1996 specifically identified maintenance of benefits after project completion as one of two "cross-cutting" issues of key importance at this transitional stage of its program.

II. PURPOSE

Evaluate progress made by the CAC Project in achieving stated

goals and purposes as related to activities with the MAF Fisheries Department. Determine the activities of other donors in this sector and their relation to USAID-funded work. Make appropriate recommendations of this component in light of the December 1992 termination of A.I.D. financial assistance for the CAC Project.

III. OBJECTIVE

The objective of this evaluation is to measure the success of Amendment No. 5 to the CAC Project Agreement, specifically those related to the MAF Fisheries Department. These results may help determine if additional A.I.D. financial assistance to the Fisheries Department is warranted.

IV. ACTIVITIES:

In meeting the above stated objective, the contractor will assess:

1. the extent to which overall plans were developed by the MAF Fisheries Department to utilize available A.I.D. funds;

2. the activities conducted and commodities purchased with A.I.D. financing and their effectiveness;

3. the progress made with regard to fisheries planning, training, public awareness and policy considerations as described in CAC project documentation;

4. the staffing of the Fisheries Department in relation to its mandate and ongoing activities; and

5. the sources of funding under other bilateral and multilateral sources and their purposes and progress.

V. METHODOLOGY

The contractor will obtain needed information to conduct this review from documents found at the USAID office in Belize City and the Fisheries Department office in Belize City. Interviews will also be conducted with USAID, Fisheries Department and other donor officials. Travel to FD sites outside Belize City may be required in conducting this review.

VI. WORK SCHEDULE

It is anticipated that the time required for this evaluation will require the full-time services of two persons for twenty work days.

VII. REPORTING

The contractor will brief USAID and MAF staff between the 15th and 20th work day of this contract. Copies of the draft report will be submitted which will detail procedures, contacts,findings and recommendations. In addition, this report will list the individuals interviewed, their positions and the time spent with each in conducting this review. The contractor will present a briefing to USAID and MAF staff at this time and incorporate comments into the final written evaluation. The final evaluation will be presented not later than 5 days after the termination of the contract. Three copies of the final report will be submitted to USAID and three copies to the MAF. In addition, a copy of the report will be submitted to USAID on a 5-1/2 inch diskette on a Word Perfect format.

VIII. LOGISTICAL ARRANGEMENTS

The contractor will be responsible for all logistical and secretarial arrangements required for the execution of this contract. Neither USAID nor the Ministry of Agriculture and Fisheries will provide any logistical or secretarial service.

APPENDIX IV

Mr. G. Winston Miller,
Miller & Miller,
9 Lizarraga Avenue
Belize City
ATTN: MR. George LIKE
Fax:- 02-30065

22nd. February 1993

Dear Sir,

In reviewing the Evaluation Report of the Fisheries Component of Amendment No. 5 of the USAID/CAC Project No. 505-0008 the Ministry of Agriculture & Fisheries, after consultation with the Fisheries Department, wishes to make the following comments on the observations and recommendations made by your firm, Miller & Miller.

Project Coordinator/Manager

In hindsight, such a person should have been recognized as being necessary to the successful implementation of the project. This need was not identified, however, until it became apparent that it was necessary to have one person solely responsible for expediting the implementation process. Indeed, if such a person was on board even when implementation plans were being developed by the Fisheries Department as a Condition Precedent to disbursement, project implementation would have been considerably advanced (please see page 17). This comment is particularly noteworthy in light of the small cadre of professional staff in the Department, a fact clearly identified in the report.

The consultants accurately evaluated this aspect of the project. The recommendations presented for future projects are, therefore, critical and are fully supported by the Ministry.

Conservation Compliance Unit

It has been noted that the establishment of this unit was a major component of the project. It has also been noted that, in spite of teething problems, this unit has been effectively established. Recommendations made in the evaluation report are already being implemented. Radio equipment is being acquired and practices are being streamlined to conform to standard government practices.

Licensing

As a revenue-generating and data-collecting activity, the licensing system will be effective. Proposals for amendment of S.I.66 have already been presented to the Cabinet. With respect to the proposed date of implementation, in view of the fact that this report is only now being submitted in late February, it is not realistic to expect that the new system be "brought into force immediately to coincide with the renewal of the boat licenses and fish exporter's licenses due January 1993." (Please see page 23) It is suggested that, all things considered, a more realistic date for implementation would be June 1993.

Reef Monitoring

Equipment has been obtained and monitoring stations, contrary to the report, have been established. Indeed, most of these were done without inputs from the project. This component did not benefit from any inputs from a consultant as was originally planned. Again, as was repeatedly alluded to in the report, USAID's procedures and procurement practices did not lend themselves to timely implementation of the plan. It is expected that this activity will be addressed under the Coastal Zone Management Project funded by the UNDP through its Global Environment Fund.

Coastal Zone Education & Public Awareness

The document correctly highlights problems associated with a dependence on external expertise. This locks us into a system that may not provide us with the best or most appropriate "expert" available. The document is also correct in indicating that attention must be paid to following procedures where external consultants ar required. At the same time, however, critical analysis and consideration must be given to making the system more flexible and responsive to the project's absolute objectives.

Training

The report notes that "problems arose in this project in the determination of a consultant agreeable to both parties." and that as a result "no consultant was employed to undertake some of the components", among which were recommendations for training of personnel. The evaluators further recommended that assessment of training needs be undertaken and reviewed. The point needs to be made here, however, that this type of activity was outside the scope of the project as training **had, in fact, been identified** as related to each component. Delivery of same was not done because of time and procedural constraints. Here critical path analysis should have been done to determine timeliness of the training.

Conch Hatchery

The conch hatchery is, indeed, suffering from a lack of capitalization. Inputs made are insufficient and ineffective. The recommendations made are fully supported by the Ministry.

Glovers Reef

The Glovers Reef facility has been completed in record time, despite the late delivery of funds. Mechanisms are being put in place to maximize use of this facility.

Structure and Staffing of the Department

To declare that the administration of the Department leaves much to be desired is inconsistent with statements made in the document which, in themselves, give no conclusive demonstration of this claim.

In the first instance, the administration finds that the staff is highly motivated, well qualified, and produce work that is well received and appreciated by the public.

Secondly, the filing system in place, though rudimentary, was introduced by the current administration. This system is indexed, with each file being catalogued by title and number.

Thirdly, the accounting system used is one prescribed by the Government of Belize. It is accepted nationally and internationally as an effective system. To that end, expenditures are written in a control ledger and again in a specific line item account. This is the check and balance deemed to be critical for proper accountability.

Fourthly, the inconsistency of the statement is demonstrated by the consultants' recognition of the difficulties experienced by a small, underfinanced Department which is expected to carry out

substantial duties. Notwithstanding, outputs are considerable and of high standards.

Fifthly, it is questionable whether two unsubstantiated claims can warrant the indictment made of the Department.

Under the circumstances described above, the Ministry requests that the consultants review this section and provide some clarification of the statement. Failing this, the statement should be withdrawn. The importance of this cannot be diminished as its implication are far reaching in a widely circulated report; the indictment extends not only to current practices accepted by Government but also to practices and procedures established by successive fisheries administrations.

Sincerely,

for (R. H. Neal)
Permanent Secretary
Ministry of Agriculture & Fisheries

cc. Agricultural Development Officer
USAID