

9311028-③
PD-HH6-726-C1

931102844
1741

Evaluation of MAB Project

Environmental Field Support (931-1028) and Environmental
Training Grants (931-1113)

by

Peter H. Freeman

Consultant DS/ST

July 1980

I.	Introduction.....
II.	Summary observations.....
III.	Recommendations.....
IV.	Evaluation method.....
V.	Brief description of the Project.....
VI.	Progress to date.....
	1. Field support.....
	2. Training and support.....
VII.	Project Management.....
VIII.	Changes from original project.....
	Annex I - Financial Status as of May 1, 1980
	Annex II - Status Report on Environmental Profiles as of July 14, 1980

I. Introduction

This evaluation of the MAB project is being undertaken to provide a basis for a decision on its proposed 15-month extension from September 1980 to the end of the first Quarter of 1982. Also, a mid-point evaluation was called for in the project papers. The slow start made in this project plus the fact that it has already been extended one year comprised further justification for an evaluation. This document is drafted for consideration by the Committee on Environment and Development, as well as the pertinent offices in the Development Support Bureau. It is assumed that full project documentation (project papers, the RSSA, special reports, sub-contracts, published results of work) is readily available to all interested parties in A.I.D. so such documentation has not been appended to this report.

II. Summary Observations

1. The Man and the Biosphere (MAB) project, Environmental Field Support and Training, is in essence a conceptual and administrative construct that eludes ready definition and evaluation.

- It works with ideas and information in a frontier endeavour -- the synthesis of concerns for environment and development -- to which A.I.D. is heavily committed.
- It is a unique administrative and managerial solution for carrying out eighteen diverse, loosely related, mostly small-scale efforts -- intricate but efficacious, and apparently no alternative.
- Its products -- environmental profiles, reports, conference proceedings, workshops, seminars -- do not necessarily have a direct and corollary manifestation in concrete actions in LDC s. However, in time they will. The solid foundation of ideas and training sessions is a necessary prerequisite to correct action, by A.I.D. or by LDC s.
- It gains access to some of the best scientific minds and institutions in the U.S. with competence in environmental questions.

2. Management of the MAB project has suffered from:

- lack of fulltime manager for the first 18 months due to ceiling on hiring in the State Department and Interior Department.
- lack of fulltime clerical help until January 1980.
- inadequate communication about the project to interested persons in and out of A.I.D.

Project management is well in hand now, however, and all except for a \$14,000 activity not yet planned (seminar in environmental awareness) all funds have been allocated through September 30, 1980.

Extension of the project to early 1982 would be needed to provide for continuing management of all activities.

3. Participation of technical staff from federal agencies in the project was less than planned. Administrative cooperation has been considerable, however. The Park Service provided management staff. All the agencies have provided contractual vehicles for getting work done by persons connected with the US Man and the Biosphere Program.

4. Participation of the MAB network in the project has been as good or better than originally planned — once the problems of staffing were overcome.

This network appears to be an excellent vehicle for tapping U.S. expertise to do small scale, new, diverse endeavours of the kind called for in the project.

5. Training exercises being funded by this project are largely experimental and cover new ground. The watershed management training workshop is stimulating great interest and good attendance, as well as requests, confirming a worldwide concern for watersheds. Regional workshops in soil erosion control (to train trainers) would be well received also, it is judged.

6. The activities actually carried out through this project are generally in accordance with those that were originally planned with the important exception of the cancellation of work for refinement of environmental assessment procedures. This reflected a shift in A.I.D. environmental policy towards planning guidelines and away from elaboration of Reg. 16. The \$172,000 thus saved helped pay for the environmental profiles, whose cost had been grossly underestimated (\$12,000 for 40 profiles).

7. Principal accomplishments to date.

- Completion of Phase I country environmental profiles, and near completion of a pilot phase II profile of Guatemala.

- Technical review in February 1980, of the country environmental profile process.

- High level, policy conferences:

U.S. Strategy Conference on Tropical Deforestation. June 1978, Washington, D.C.

World Conference on Sea Turtle Conservation, November 1979, Washington, D.C.

Conference on Environmental Management and Economic Growth in the Smaller Caribbean Islands. Sept. 1979, Barbados.

International Conference on the Social and Economic Consequences of Natural Resource Policies, (with Emphasis on Biosphere Reserves), April, 1980, Durango, Mexico

- Technical level workshops:

University of Arizona. Watershed management training workshop. Los Banos, Philippines. September 1979.

University of Tennessee. Concepts and techniques for conducting resource inventories and resource monitoring. July 1980.

8. Except for the slow start made on this project, it seems to be succeeding in achieving its general plan; and above all it is beginning to make an impact.

III. - Recommendations

1. This project's life should be extended to March 1982 in order that activities planned and subcontracted can be completed, and that a seminar as yet unplanned can be carried out.

A further reason for extension of the RSSA is the distinct possibility that additional phase I environmental profiles will be requested and funded.

2. Conversion of the RSSA with MAB into a more general agreement should be considered so as to accommodate possibilities for funding small scale, new efforts that could best be done by MAB resource persons; and also to permit flexibility to A.I.D. in contracting special services not possible through existing IQC s, PASA s, RSSA s or other arrangements.

3. Training exercises undertaken through this program should be planned and evaluated so as to evoke improvements and discard unworkable or inappropriate approaches/materials. Review of evaluation methods used by DS/IT is advised, and procedures should be instituted by workshop or seminar managers.

4. A summary program description with a listing and description of individual projects should be produced for general informational purposes.
5. Possible support from other donor agencies for environmental profiles (especially revised editions of the Phase I profiles) should be explored.
6. Regional bureau environmental officers should be asked to review their regional portfolios, to provide guidance on potential support that could be supplied through the MAB network, and specifically to guide the general format and location of future training courses.

IV - Evaluation Method

This evaluation was done by means of interviews, reviews of project management documents, readings of project publications and attendance of one of the project training workshops (on Adaptive Environmental Assessment).

Interviews

Molly Kux, DS/ST	AID project manager
Bert Printz PPC	AID Environmental Coordinator
Don King OES/EH	Director, Office of Environment and Health, Dept. of State and chairman, U.S. National Committee for MAB
Oscar Olson, MAB	former MAB Executive Director, Dept. of State
Bob Stottlemeyer, NPS	first MAB project manager
Jeff Tschirley, NPS	second MAB manager
Jim Corson, NPS	third MAB project manager
Bob Otto, LAC	
Carlynn Pitts, PM/TD	
Elaine Soulides, DS/IT	
Peter Ffolliott	University of Arizona, Watershed Training project manager

Stephen Humphrey	Florida State Museum, Manager for survey of endangered species of Thailand
Gus Tillman	Carey Arboretum, manager for Guidelines for Small Scale Irrigation Projects
Susan Parker	University of Arizona, Arid Lands Information Center, manager for en- vironmental profiles
Ike Ellison, FWS	Manager of the Adaptive Environmental Assess- ment workshop
Allan Hirsch	former head of inter- national training, Fish and Wildlife Service

Review and evaluation of environmental profiling process

This was carried out in late 1979, early 1980 and reported on in February, 1980. ("Environmental Profiles; a Review of Progress as of February, 1980" by Peter Freeman, consultant to DS/ST)

Review of project reports and publications

Environmental profiles

Conference publications

Workshop syllabuses

Progress reports

Memos

An initial conversation with Elizabeth Roche, DS/PO, served to orient the evaluation. Because of conflicts in schedules an additional conversation with Frank Campbell, Environmental Officer for DSB, did not take place.

Since many of the project activities have not been completed (with the major exception of over 20 country environmental profiles), particularly the training projects, results could not be evaluated. Most of the evaluation therefore turned on the following questions:

Managed well?

Proceeding as planned?

Worth extending?

Are there weaknesses or deficiencies?

Improvements possible?

Much of the evaluation effort was spent reviewing each of the 18 activities that have been subcontracted, comparing these to the original intent of the project, and attempting to develop a summary view of the project.

For those activities with results, particularly the profiles, the judgment of their worth by beneficiary missions and governments, is recently beginning to be heard. With few exceptions the reactions to the draft profiles have been very positive.

V. - Brief Description of the Project

To be referred here to as "the MAB project", this activity combines two project papers: Environmental Field Support (931-1028) and Environmental Training and Grants (931-1113). It is implemented through a RSSA (SA/TOA 1-77) with State's Bureau of International Organization Affairs, which houses the U.S. National Committee for Man and the Biosphere. Total funding was \$880,000 and project life was originally from Sept. 1977 to Sept. 1979. It has already been extended one year, owing to initial problems in getting management staff (mentioned below).

This MAB project could be described as a program with diverse activities -- studies, workshops seminars, conferences -- being carried out largely by persons and institutions throughout the U.S. associated with the Man and the Biosphere Program. The general nature and objectives of the activities are as described in the RSSA and project papers, with some exceptions noted below in the last section.

Individual activities, or sub-contracts, of which there are eighteen at present, have been developed in consultations between the MAB project managers, the AID project manager (Molly Kux) and interested regional bureau environmental officers, on one hand, and between the MAB manager, MAB Directorate chairman and potential sub-contractors on the other hand. Most of the activities have been subcontracted by "piggy backing" onto existing agreements between federal agencies (notably USDA) and various universities or groups. Although apparently elaborate, this sub-contracting solution has allowed for the flexibility and expediency needed to fund the kind of small scale, pioneering efforts that the project is designed to carry out.

The diversity, the smallness of scale and the administrative intricacy of the various activities make the over-all project difficult to comprehend and to communicate, as well as evaluate.

Initially, this made for problems in eliciting support and interest from various federal agencies, who A.I.D. assumed would take a fairly active role in the identification and the technical implementation of possible activities.

VI. - Progress to Date

The various activities completed or underway are listed in Table 1. A number of the training activities have only recently begun and would run into 1981 and even early 1982 while one activity (environmental awareness seminars for visiting LDC students on short courses) has yet to be planned and implemented. Also, requests for environmental profiles now exceed present funding levels as well as project life.

Project funds have been fully allocated through September 30, 1980, as shown in the attached May 1980 Financial Status Report (Attached as Annex I).

Table 1. List and Status of MAB Project Activities, June 1980(*=extension needed.)

<u>Name of Project</u>	<u>Status</u>
1. Tropical Forestry Conference.	- <u>Complete</u> . Proceedings complete.
2. Library of Congress - Contract for 18 country environmental profiles.	-Complete except for Syria and Barbados expected by July 1 and August 1, 1980, respectively.
*3. Arid Lands Information Center, University of Arizona (through National Park Service) - contract for country environmental profiles	-Terminates Nov. 1, 1980. 6 profiles completed; 5 scheduled for completion before Nov. 1. Up to 21 additional profiles requested, pending funds extension.
4. Sierra Club - Directory of U.S. training programs in natural resources and the environment.	- <u>Completed</u> and distributed

5. Institute of Ecology, University of Georgia (through National Park Service) - Environmental Profiles, Phase II
 - Contract completion date extended August 1, 1980. Field work completed.
- *6. World Wildlife Fund (through National Park Service) - Minimum Critical Habitat Study, Brazil.
 - Contract completion date Aug. 1, 1980. Request on hand for extension of 90 days or longer.
7. Cary Arboretum (through U.S. Forest Service) - Environmental Guidelines, Large and Small Irrigation Projects.
 - Field work completed. Contract completion date is Sept. 30, 1980.
8. World Wildlife Fund - World Conference on Sea Turtle Conservation.
 - Conference completed: strategy paper completed and translated. Conference proceedings publication expected by December 1, 1980.
9. Natural Resources Defense Council, Inventory of Audio Visual training materials on environmental topics in LDC's.
 - First draft due by July 1, 1980.
10. Indonesian MAB Project Training of graduate students in Social Anthropology Field Methods, "People and Forests in E. Kalimantan, Indonesia" (through U.S. Forest Service).
 - Completion expected about Oct. 1, 1980. Request for additional support to continue project expected.
11. MAB Conference on Environmental Management and Economic Growth in the Smaller Caribbean Islands.
 - Conference completed, Sept. 17-21, 1979. Proceedings completed and distributed. Funds from LAC/DR.
12. Michigan State University (through U.S. Forest Service) - MAB Workshop on "Rational Use of Forest Resources for Energy and Organics".
 - Conference completed, May 6-11, 1979. Proceedings completed and distributed. Funds from DS/EY.

13. Associated Universities(through EPA)- Contract for Mutagen and Carcinogen Detection Training Workshops. -9 workshops in 1979; 9 for 1980. Intend to continue. Informal request for AID/MAB continued support (\$50,000 for 1981/82).
14. Fish & Wildlife Service contract with University of British Columbia (UBC) - "Adaptive Environmental Assessment Method" Workshops. -Contract completion date Dec. 31, 1980. Training Sept.-Nov 1979. Workshop, June 1980.
- *15. University of Arizona(through U.S. Forest Service) - Watershed and Natural Resource Management Training. -One course completed in Philippines. 2 more sessions under discussion for SE Asia. Contract completion date May 1, 1981.
16. Assistance and (Staff) Training at College of African Wildlife, Mweka, Tanzania(through National Park Service) -Training visits by College staff to U.S. resource management programs scheduled for summers of '80 and '81. Contract completion date Sept. 1981.
- *17. University of Tennessee(through U.S.D.A.) - Training Course, "Concepts & Techniques for Conducting Resource Inventories & Resource Monitoring" -One course scheduled July 7 to Aug. 1, 1980. Syllabus/course guide completed. Proposed second session in summer '81. Proposed transfer of course to LDC in 1981/82.
18. University of Arizona(through U.S. Forest Service) - International Seminar on the Social and Environmental Consequences of Natural Resources Management Policies, with Special Emphasis on Biosphere Resources. (Durango, Mexico, April 1980) -Seminar completed April 8-12, 1980. Proceedings in process. Second seminar proposed as follow-up to include more countries and more participants in Central America.

1. Field Support

A major accomplishment of the MAB project has been the country environmental profiles. (Status report on profiles attached as Annex II) Twenty-two Phase I (desk study) profiles have now been completed and 7 are underway. Four Phase II, field level profiles are being done in Latin America, (Ecuador, Bolivia, and Panama funded by LAC, and Guatemala funded by AID/MAB) and three are planned for Africa(Mali, Upper Volta and Zaire). The Phase I profiles have been very well received in the Latin America, Near East, and Africa Bureaus, but have not yet stirred much interest in the Asian Missions.

The environmental profiling process was reviewed in February 1980. Major criticisms were lack of sufficient communication between AID Washington & AID missions as to the nature, idea and proposed use of the profiles, and inadequate utilization of extant information resources within AID. AID has responded to both criticisms. Recommendations for a model outline have served to generate considerable discussion and thinking on the best presentation and structure for the data.

Recently other international assistance agencies, notably the Asian Development Bank, IBRD, IDB and OAS have taken note of the usefulness of the environmental profiles and have requested copies.

Reactions and indications point to a mounting appreciation of the value of these reports and their widespread utilization by development assistance agencies as well as host governments.

2. Training and support

Training activities did not begin until mid-1979, due principally to the lack of full time project management until about March 1979. Therefore most are still in progress. All the training activities have been developed through the U.S. MAB network with the exception of the NPS training of Mweka College staff and the Adaptive Environmental Assessment (AEA) exercise, which was done through an extant contract between UBC and the U.S. Fish & Wildlife Service. All the activities except the AEA exercise had only been ideas until the potential for MAB support was announced in early 1979. The following are activities that can be reported on:

The AEA Adaptive Environmental Assessment Workshop. I attended this workshop. I and most of the other participants with whom I talked found a number of weaknesses:

- * The AEA method is of little utility for assessment where information about the environment is lacking, which is the case in most LDC's
- * The workshop was poorly organized and presented.
- * The workshop seemed mainly to have been used by the key spokesman for the AEA as an opportunity to market a technique (He represented a private firm not the UBC).

AID support for further development of the AEA does not seem merited given the expense of the programming and the doubtful utility in LDC's. In any event, the AEA will get a trial in Thailand under Ford Foundation sponsorship, after which AID would have an opportunity to evaluate its usefulness.

The University of Arizona watershed management workshop. Only one workshop of the four has been held in the Philippines last Fall in cooperation with the Philippines MAB committee and the University of Philippines. Evaluation of the workshop by the Philippines MAB Committee was to have been done but no results have been received. The only criticisms of the course were its temperate zone bias (reviewers of the syllabus), and insufficient exercises (comment of the students). Otherwise it was well received, and participants have generated several requests for additional workshops in Asia (Thailand, Indonesia, Sri Lanka, India and Nepal). There is also an expression of interest from Bolivia.

This exercise is of great strategic importance to AID programs which aim to stabilize, reforest or otherwise manage watersheds, and there should be more AID guidance to the University of Arizona, so as to exploit this opportunity for field training. A workshop in Nepal seems obvious given the commitment of AID to stop erosion and degradation in this portion of the Ganges watershed.

A third training activity, held in Durango, Mexico did not meet expectations. The Mexican MAB Committee, which was to host the seminar, was not strong enough to draw the participation of highest level government officials. Also the Central American republics were not well represented for lack of adequate planning and due to political turmoil.

Comments

Reliance on foreign MAB Committees should be approached with caution in light of these experiences. In general, all workshops or training exercises should be systematically evaluated using methods developed by AID's International Training Division. Besides immediate evaluations by participants, technical workshops should have 6-months-later evaluations of participants by mail to discern the impact of the knowledge acquired.

In general there is keen interest everywhere in any training opportunity that attempts to convey knowledge and skills for better dealing with environmental challenges. The AEA workshop participants had high expectations; the Philippines workshop has generated good response and provoked students to request more actual problems to solve.

The new training attempts being funded by MAB are critical steps in the development of courses that could be funded on a continuing basis through other avenues, but which first must run through a trial-and-error stage, seeking to adjust perceptions and subject matter to LDC training needs.

VII. - Project Management

Lack of a full time project manager until March 1979, and discontinuities in management, have been the greatest handicaps for this project. After that, lack of a clear, written communication which describes the MAB project is a major flaw. This has prevented good comprehension in and outside of AID of the activity. With these exceptions, the project has been increasingly well managed, and at present all except one of the project activities have been planned and subcontracted.

Management staff. Full time project management began only in January 1979, 15 months after the RSSA was signed. Because of the freeze on hiring in State Department a project manager and secretary could not be recruited by State Department as was planned. Not until the summer of '78 nine months after the RSSA was signed, was a solution worked out through the U.S. Park Service. Not until January of 1980 was it possible to recruit a secretary -- who had to be a 32-hours per week person due to the ceiling on hiring.

The U.S. Park Service basically "bailed out" the project by providing Bob Stottlemeyer on detail for seven weeks in July and August of 1977, and Jeff Tshirley in September, 1979, 1/2 time for six months (to 9/80), and then Jim Corson, who is the present manager. The initial delay and management discontinuities have prevented the project from evolving according to the planned schedule.

Lack of an assigned secretary until January, 1980, was remedied through assistance from regular MAB secretarial staff, especially Phyllis Rubin, and also from Park Service secretaries.

Management Chronology

Sept. 77 to July 78	No manager; Oscar Olson MAB executive director filling in.
July - Aug. 78	Bob Stottlemeyer
Sept. 78 - Mar. 79	Jeff Tschirley, half time
Mar. to Sept. 79	Jeff Tschirley, full time
Oct. 79 to present	Jim Corson, full time

Participation of Federal Agencies. This has not worked out as originally planned. It was assumed in the project that EPA, USDA and USDI would make a substantive contribution to the project, especially to the training work. Although there was initial interest, no such contribution ever developed. According to Stottlemeyer and Tschirley, this was because of difficulties in getting the agencies to understand AID's mission in general and the project in particular, difficulties in discovering within the federal agencies persons whose interests or missions match those of AID (basically the Reg. 16 or, FAA, Sec. 118 mandates), and reduced man-

power and program levels, with resulting emphasis on domestic missions.

Administratively, however, the role of the Federal agencies has been key to the project's success. Existing agreements between federal agencies, especially the U.S. Forest Service & the Fish & Wildlife Service and various persons or universities who also are part of the MAB network, were used to expedite contracts for work that was developed through the MAB network. These agreements were essential because the MAB Secretariat did not have adequate staff to contract work.

These subcontracting mechanisms were not put into action immediately, however, ways were found to sub-contract training programs through the USDA training office which has agreements with practically all major U.S. universities for its various educational programs.

Efficacy of the MAB network. The MAB network, which is formally accessed through the chairmen of the 14 MAB directorates, became very responsive to the agenda of the project, particularly after Dr. Frank Golley, MAB 1 chairman, obtained the first contract through this means for the field level environmental profile of Guatemala through the Institute of Ecology. It appears that this example encouraged others to put forth project ideas in accordance with the activities of interest to AID.

It also appears that the MAB vehicle de-politicizes AID support and has served to enlist scientific talent that would otherwise not seek AID support for surveys or research activities. Mistrust in the academic community of AID's intentions and sincerity on environmental matters is a legacy that will naturally require a number of years to overcome.

The MAB vehicle also functions well for the nature of the activities: small scale, diverse, relatively short-lived, and prototype, or pioneering efforts. The magnitude of the total project (\$880,000) is also not overwhelming for the overall MAB program. Most fundamentally, there is no alternative that could achieve the same results.

AID project management. Molly Kux, DS/ST, has been project manager, on about a 1/3 time basis. It is largely through her efforts to enlist Park Service support and find administrative solutions to sub-contracting obstacles that the project survived the first year and a half. Failure to communicate fully and clearly the nature and significance of the MAB project and its components to others in AID is perhaps the principal weakness of management that should be remedied. Also, stronger technical guidance on AID's part would have improved the project results and task definition.

Policy changes in AID also affected the project. A decision by Bert Printz, PPC, to shift emphasis in environmental policy implementation from further elaboration of Regulation 16 to improved project design for environmentally sustainable development obviated the need for work related to refinement of EA's and IEE's (Field Support Section) This change reflected new mandates in Sections 118 and 103 of the FAA.

VIII. Changes from the Original Project

Table 2 summarizes the activities originally planned in the project papers and those that were actually undertaken.

In general, the work done has followed the original plan, except for the task concerning refinement of environmental assessment procedures which was estimated to cost \$172,000. It was cancelled because A.I.D. changed its policy emphasis towards improved project design and the preparation of corresponding guidelines. Some tasks not undertaken by the project, were dropped when other money became available to do them, thus saving monies for environmental profiles, whose estimated cost was unrealistically low (40 profiles for 3 man-months of effort costing \$12,000). In fact the 31 phase I profiles will have cost about 10 times more than originally estimated (but are still cheap at an average of \$4,000 each). Financially these changes more or less balanced each other.

The training portion of the work has not followed the original plan, which was to have utilized largely federal expertise in training. Little interest or concrete collaboration could be elicited from the different agencies. The Adaptive Environmental Assessment work and the EPA workshop on carcinogens and mutagens are examples of the sorts of activities that were originally projected. (It may be noted that the same problem is being experienced with the "Expanded Information Base on Environment and Natural Resources" project.) Thus the project managers have had to seek proposals from outside the government through the MAB network. This has worked out, however, and the result is MAB support for new or unique training efforts.

Table 2. Activities Planned Compared to Activities Undertaken

Planned and/or Specified in RSSA	Actually Undertaken
A. <u>Field Support</u>	
1. Analysis	
Environmental Profiles	- Environmental Profiles
Refinement of AID environmental assessment procedures (review of experience, case studies, prototype IEE's)	- Environmental guidelines for small scale irrigation projects (Carey Arboretum). Other work was not undertaken, since AID policy shifted from project soundness (Reg. 16 compliance) to better design.
Environmental issues papers.	- Not undertaken. No agreement on issues or how to have them studied.
2. Field Support	
Environmental research and training reference service.	- Sierra Club Training Directory. - NRDC survey of audio-visual materials.
Environmental Newsletter	- Support publication of 2nd NRDC Tropical Forests Newsletter (12/79) (AID's training office funds Clark University's newsletter <u>Network for Environment and Development</u> .)
Environmental technical assistance roster.	- Not undertaken (not feasible).
Endangered species warning and identification system	- Survey of endangered species of Thailand (prototype national-level study). - Minimum critical habitat size study for Amazon Basin.

Table 2 (continued)

Planned and/or Specified in RSSA	Actually Undertaken
3. Liaison with External Agencies Annual Washington seminar for international development agencies.	- Not undertaken, since achieved by the International Institute for Environment & Development - Conference on Tropical Deforesta- tion was sponsored, instead, with co-sponsorship from State
Private voluntary agencies and the environment	- Not undertaken, because AID's DSB/ST and Office of Private & Voluntary Cooperation jointly funded the planned effort -- a conference held at Mohonk in late 77 -- and two others.
3. <u>Training and Support on integrated, interdisciplinary approaches to development planning.</u>	
1. Two short, prestigious seminars (1 week or less) for ministerial level officials.	- Central American Policy Seminar 4/8 to 4/12, 1980, Durango, Mexico. (Also under separate funding: Conference on Environ- mental Management and Economic Growth in the Small Caribbean Islands 9/17 - 9/21 1979, Barbados).
2. Mid-level(or 2nd level) seminars for 15-20 LDC government plan- ners (3-4 weeks).	- Workshops for Detection of Mutagens and Carcinogens in Chile, Colombia, and Philippines, co-sponsor- ed by EPA, DOE and NCI. - 3-day workshop on Adaptive Environmental Assessment (Harper's Ferry, June 1980). Preceded by model- ling exercise on Indonesia at University of British Columbia, co-sponsored by Ford Foundation and AID/ MAB. - Watershed and Natural Resources Management Workshops(four to be given abroad by University of Arizona).

Table 2 (continued)

Planned and/or Specified in RSSA	Actually Undertaken
3. Continuing support(possibilities) Short term seminars for groups of LDC officials from other agencies than environmental ones	- Concepts and Techniques for Conducting Resource Inven- tories and Resource Moni- toring. University of Tenn. 4-week course. - People and Forests in East Kalimantan; training for Indonesians in field methods. Approx. 4 weeks - Not undertaken
Provision of literature and in- formation	- Provided when requested.
Provision of technical advisory services.	- Not undertaken
Award of small (research/training grants	- Training visits by staff of Mweka College of African Wildlife to U.S., Summer 1980
4. Two environmental workshops for 20-25 AID-funded participants in U.S.	- Not undertaken yet but plan- ned.