

PD-AAV-251

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**VECTOR BIOLOGY & CONTROL PROJECT**  
**REPORT FOR THE SIXTH QUARTER**  
**DECEMBER 1, 1986 - FEBRUARY 28, 1987**

**Vector Biology & Control Project**  
**Managed by Medical Service Consultants, Inc.**  
**Arlington, Virginia**

**Sponsored by the Agency for International Development**  
**under contract DPE-5948-C-00-5044-00**

## INTRODUCTION

This document is one of a series of required quarterly progress reports. It describes major events and activities of the Vector Biology and Control Project during the sixth project quarter (December 1, 1986 - February 28, 1987). The Vector Biology & Control Project is managed by Medical Service Consultants, Inc., Arlington, VA, for the Agency for International Development through the Office of Health, Bureau of Science and Technology.

## MEETING OF THE TECHNICAL ADVISORY COMMITTEE

The third meeting of the Technical Advisory Committee occurred at the VBC offices in Arlington, VA, on February 5-6, 1987. Meeting participants reviewed the report of the VBC Project management review team, and considered ways to implement recommendations made in the report.

The committee members also discussed ways in which the university subcontractors may increase their participation in planning and execution of specific, already identified VBC Project activities. Dr. Lennox highlighted proposed activities in Burma, Nepal, Kenya, Chad, and Sri Lanka as good opportunities for greater involvement of the subcontracting universities. He said that the strength of the university subcontractors is that they can provide continuity to a series of VBC Project activities conducted in a particular country.

## MEETING TO DISCUSS VECTOR-BORNE DISEASE STRATEGY FOR THE ASIA/NEAR EAST REGION

The VBC Project has been asked to assist the Asia/Near East bureau in formalizing an assistance strategy for vector-borne diseases (see Initiation of Proactive Activities, PA-022-2). On January 5-6, 1987, three specialists in vector-borne disease control in the Asia/Near East region visited the Project offices and met with members of the VBC Project staff. They helped to identify major issues and components for inclusion in the strategy statement. Their recommendations will be reflected in the strategy paper.

## VBC SEMINAR SERIES

On February 10, 1987, Captain Dan Strickman of the U.S. Army Walter Reed Biosystematics Unit at the Smithsonian Institution presented a luncheon seminar on "Mosquito Systematics in Honduras."

## MALARIA VACCINE CONFERENCE

Dr. Robert Lennox attended the conference entitled "Malaria in Africa: Practical Considerations of Vaccine(s) and Clinical Trials." The conference occurred December 1-4, 1986 at the Madison Hotel in Washington, D.C. In conjunction with the conference, Dr. Paul Taylor, director of Blair Research Laboratory in Zimbabwe, and Dr. Simba Mpofu presented a seminar at the VBC Project offices about the past and current malaria situation in Zimbabwe, the national control program, and the work of the Blair Research Laboratory in this area.

## VECTOR CONTROL INFORMATION CENTER

The VBC Information Specialist hired two graduate students from the Johns Hopkins University during the sixth quarter. Their sole responsibility is to read, abstract, and code selected documents for entry into the VBCINFO document file. They will be paid on a per/piece basis. Also, Dr. Amr Taha, an Egyptian urologist studying library and information science at Catholic University under sponsorship of the IDRC, is working as an intern in the Information Center to gain practical experience. During the 120 hours of his internship, Dr. Taha will devise a computerized journal check-in system and a tracking file for epidemiological data.

## STATUS OF VBC TECHNICAL REPORTS

During the sixth quarter the following VBC Project technical reports were reproduced and bound in final form.

Nepal: Multi-Donor Review of Malaria Control Program  
AR-013

Evaluation of Operational and Research Needs of the Anti-Malaria Program in Thailand, 1986  
AR-014

Report on Malaria Control for the Health Systems Management Project of El Salvador  
AR-015

Malaria in Nepal: Observations during a Short-term Entomological Consultancy  
AR-023

Adult Anopheline DDT Susceptibility Trials and Associated Entomological Evaluations as Related to Malaria in Bolivia  
AR-020

Scope of Work for Project Analysis and Design  
Team/Schistosomiasis Component  
Science and Technology for Development Project/Egypt  
AR 034

Proposal for a Practical Course in Medical Entomology and  
Vector Control (Burma)  
CE-006

DISTRIBUTION OF DIRECT COSTS

A chart presenting a break-down of the direct costs of the  
VBC Project during the sixth quarter is included in Annex 1.

## INITIATION OF PROACTIVE ACTIVITIES

During the sixth quarter, the VBC Project participated in three proactive activities.

### PA-021-2 Environmental Guidelines for USAID Mission Health Officers

The VBC Project continued its effort to prepare a handbook for mission officers to assist them in conducting Initial Environmental Evaluations for vector control projects. In the sixth quarter, an environmental scientist familiar with pesticide use, malaria, and vector control measures drafted the revised guidelines. His manuscript is being reviewed, and will comprise the basis of the completed handbook.

### PA 022-2 Development of a Vector-borne Disease Control Strategy for the Asia/Near East Bureau

The VBC Project continued its effort to assist the Asia/Near East bureau in formalizing an assistance strategy for malaria control. The ensuing strategy paper will identify vector-borne diseases in Asia and the Near East which pose serious threats to mortality and morbidity. It also will identify activities of A.I.D. and other donors which address those concerns, as well as major needs not met by existing control programs. A workshop was held January 5-6, 1987 to identify major issues and components for inclusion in the strategy statement. Following the workshop, VBC invited Dr. Joe Stockerd to draft the strategy document.

### PA 026-2 Vector Blackfly Survey in the Uniroyal Rubber Plantation at the Liberian Agricultural Company

In the sixth quarter, VBC sent two entomologists to the Uniroyal Rubber Plantation in Liberia to select blackfly breeding sites for prevalence of onchocerciasis. They identified field sites for monitoring of infection in blackflies, identified appropriate control sites outside the project area, determined rates of man-biting for sites selected, determined blackfly species and densities, and estimated parous rates of the flies. The activity may lead to a three-year program to monitor transmission from humans (under mass treatment with Ivermectin) to blackflies. A technical report was submitted to the VBC Project.

IMPLEMENTATION OF FIELD ACTIVITIES: Status Report

AR-022-2 Evaluation: Increased Productivity through Better Health (Belize)

During the sixth quarter, the VBC Project identified and sent a social scientist and a sanitary engineer to Belize where they participated in the first interim evaluation of the "Increased Productivity through Better Health" project. The consultants worked with the VBC Project's Cognizant Technical Officer to review the project design, determine whether implementation to date has impacted favorably on the project's objectives, and provide recommendations for improving the project's performance. A report will be submitted in the seventh quarter.

AR-024-2 Nepal: Development of Training Program

USAID/Nepal has asked the VBC Project to 1) assist in developing training programs for mid- and upper-level malaria control staff in arbovirology, parasitology, zoonoses, and vector control methods and 2) update existing Training Centre plans to improve training in malaria control and to upgrade curriculum and facilities for arbovirology. As a preliminary step, in the sixth quarter the VBC Vector Biologist went to the CDC (Dengue) San Juan Laboratory in Puerto Rico to obtain background information needed to set up a basic arbovirology lab, and to develop course material on arbovirology.

AR-032-2 Pakistan: Workshop on Alternative Means of Vector Control

In the sixth quarter, the VBC Project and USAID/Islamabad cosponsored a workshop in Islamabad on Alternative Means of Vector Control. Thirty-nine entomologists, assistant entomologists, and relevant staff members from the provincial malaria control programs and the Ministry of Health (Division of Malaria Control) participated in the three-day workshop. Lecture topics included background information about malaria control efforts in Pakistan and alternatives to residual spraying for control of anopheline malaria vectors. Alternative methods include ULV spraying, larviciding, personal protection, and biological control. The VBC Vector Biologist and Tokuo Fukuda of USDA in Gainesville, FL also presented lectures and demonstrations to malaria control staff at the Malaria Research and Training Center in Lahore, Punjab.

AR-036-2 Egypt -- Schistosomiasis Project Paper Analysis and Design

At the request of USAID/Egypt, the VBC Project took steps toward the execution of the steps defined in AR-034-2-- "Plans and Scopes of Work for the Project Analysis and Design Team for the Schistosomiasis Science & Technology for Development Project." Candidates for all positions were identified, contacted, and briefed. The VBC Project initiated and hosted a team planning meeting February 25-27, in which most of the Design Team Members were able to participate. The team leader and project design specialist departed for Egypt to make arrangements for the analysis and design effort. Other members of the Analysis and Design Team will join them in Cairo. The project paper for the schistosomiasis research project will be completed by May 30, 1987.

AR 046-2 Country Specific Vector-Borne Disease Profiles

The VBC Project was asked by S&T/Health to compile country-specific profiles of vector-borne diseases. The profiles will be used to provide mission health officers with up-to-date information about vector-borne diseases and control efforts. Each profile will be written by a subject specialist. Target diseases are: Chagas' disease, African trypanosomiasis, arboviral diseases, lymphatic filariasis, leishmaniasis, dracunculiasis, onchocerciasis, schistosomiasis, leprosy, and malaria. Drafts of the profiles are to be submitted to the VBC Project and edited during the seventh quarter.

INITIATION OF COOPERATIVE EFFORTS

In the sixth quarter, the VBC Project participated in three collaborative activities.

CE 014-2 Entomology Course for Medical Assistants

This activity is the implementation phase of CE 006 (Burma: Design of Medical Entomology Curriculum). Eighteen Burmese Nationals are participating in the medical entomology training course. The course is being conducted in collaboration with WHO. The five-month course began November 3, 1986, and will continue through March 31, 1987.

CE 015-2 Reference List for Library in Rangoon, Burma

At the request of USAID/Burma, the VBC Information Specialist prepared a draft of a comprehensive list of books, periodicals, teaching materials and references for the Government of Burma. The draft document is being reviewed by VBC staff and representatives of the subcontracting universities.

CE 017-2 Assessment of Non-target Organisms in OCP Expansion Area Prior to Initial Insecticide Spraying

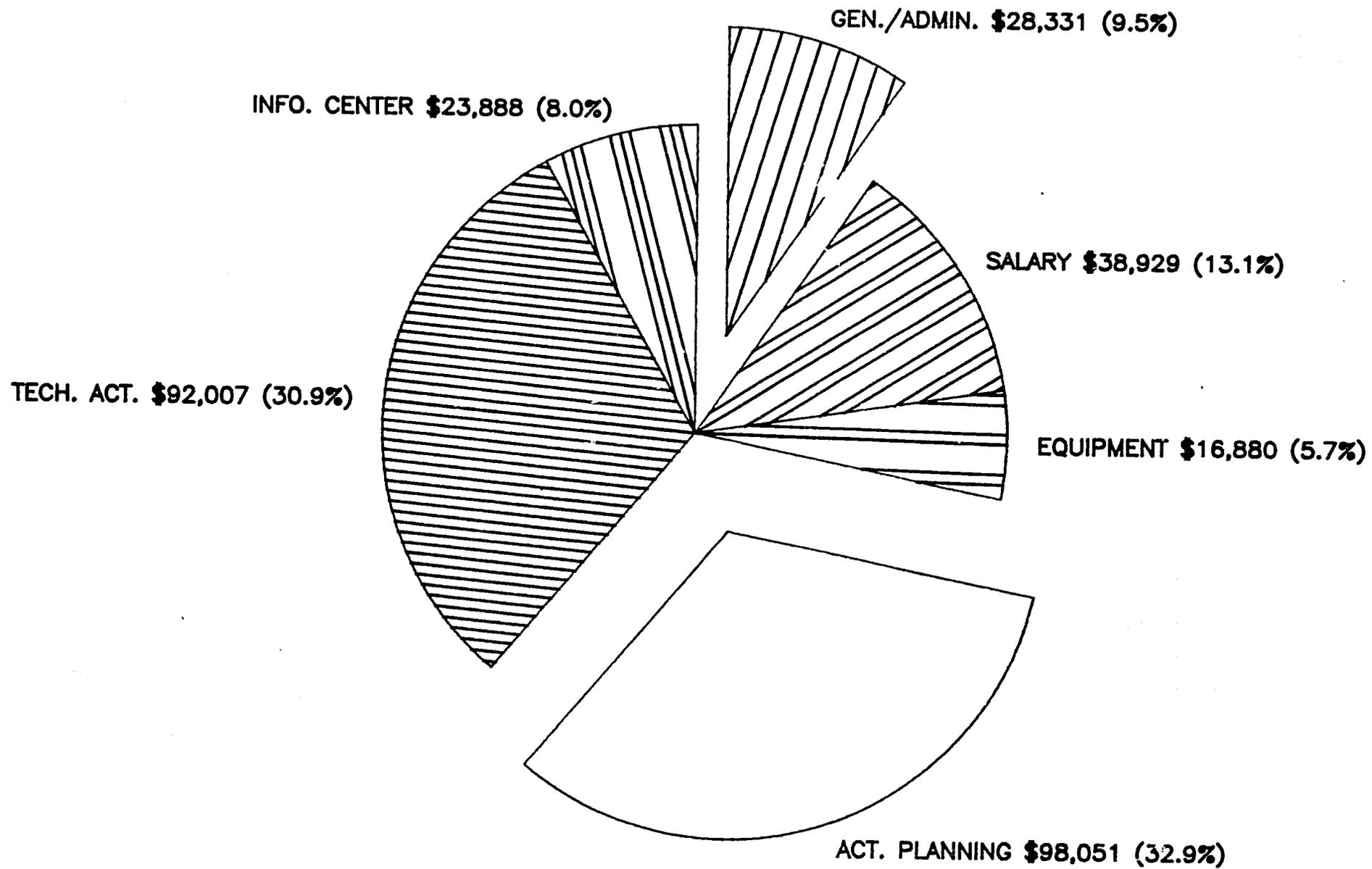
The African Bureau of the Onchocerciasis Control Project asked the VBC Project to assist with an assessment of non-target organisms prior to expansion of the OCP. In the sixth quarter, VBC sent a freshwater biologist to carry out field studies to determine the inventory of fauna and assess their susceptibility to the chemical agents which will be used by OCP according to its standard protocol. A draft report was submitted.

**ANNEX 1**

**FINANCIAL REPORT**

# DISTRIBUTION OF DIRECT COSTS

Sixth Quarter (12/01/86-02/28/87)



## ANNEX 2

### VBC JOB LIST

The VBC Job List identifies each activity, the manager responsible for its implementation, and its implementation status. The VBC Job List is a standard feature of Quarterly Reports.

VBC JOB LIST

		<u>Status Code</u>	
		Identified:	I
		Active:	A
		Completed:	C
		Deactivated:	D
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		Manager	Status
AR-022-2	Evaluation: Increased Productivity through Better Health (Belize)	Arata	A
AR-024-2	Nepal: Development of Training Program	Lacey	A
AR-032-2	Pakistan: Workshop on Alternative Means of Vector Control	Lacey	C
AR-036-2	Egypt -- Schistosomiasis Project Paper Analysis and Design	Lennox	A
AR 046-2	Country Specific Vector-Borne Disease Profiles	Arata	A
LP 006	US: Establishment of the Vector Control Information Center (VCIC)	Silverman	A
LP 007	US: Establishment & Operation of VBC Data Bases	Silverman	A
LP 008	US: Expansion of VBC Consultant Roster (VBCNET)	Silverman	A
LP 010	Global: VBC Staff Travel	Schmidt	A

		Manager	Status
LP 011	US: VBC Technical Seminar Series	Lacey	A
LP 012	US: VBC Newsletter/Brochure	Arata/Simon	A
CE 001	Regional: Development of Collaborative Training Program(s) with International Agencies	Lennox/ Arata/ Lacey	A
CE 002	Global: Development of Data Base Network	Silverman	A
CE 003	Global: Exchange Agreements/Documentation	Silverman	A
CE 014-2	Entomology Course for Medical Assistants	Lennox	A
CE 015-2	Reference List for Library in Rangoon, Burma	Lennox	A
CE 016-2	Production of Training Films on <u>Aedes albopictus</u>	Arata	A
CE 017-2	Assessment of Non-target Organisms in OCP Expansion Area prior to Initial Insecticide Spraying	Arata	A
PA 001	US: Publication: Resource Document: Perspectives in the Control of Vector-Borne Diseases	Lennox	A
PA 002	US: Resource Documentation: Commercially Available Materials for Use in Vector-Borne Disease Control	Arata	A
PA 003	US: Publication: Resource Document: Audio Visual Resources for Training in Vector-Borne Disease Control	Silverman	I

		Manager	Status
PA 004	US: Publication: Resource Document: Operational use of Biological Control Agents (Will be included in PA 015)	Lacey	I
PA 005	US: Working Document: Priorities in Production of Training Materials in Control of Vector-Borne Diseases	Arata	I
PA 006	US: Publication: Resource Document: Social Sciences in Control of Vector-Borne Diseases	Arata	I
PA 007	US: Publication: Resource Document: VBC Information Exchange	Silverman	I
PA 008	US: Development of Methodology To Be Used in Empl. Cost/Benefit Analysis to Programs for Control of Vector-Borne Diseases	Silverman	I
PA 009	Proposal to Assist in the Implementation and Evaluation of Malaria Vaccine Field Trials	Silverman	I
PA 010	US: Development of a Plan to Assist in the Implementation and Evaluation of Immunodiagnostic Kit Field Trials	Silverman	I
PA 012	Field Document: Vector-Borne Disease Control: Country Profile Questionnaire	Lennox	C
PA 013	Resource Document: Onchocerciasis: An overview of the current problems and Recommendations for Future Activities to A.I.D.	Lennox	C
PA 014	VCIC Information Coordination and Scientific Presentation	Silverman	A

Manager    Status

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PA 015	Resource Document: Alternatives to Residual Spraying for Control of Mosquitoes	Lacey	A
PA 016	Resource Document: Biological Control of Mosquitoes Breeding in Rice Fields	Lacey	A
PA 018	Development of Asia/Near East Malaria Control Assistance Strategy	Lennox	C
PA 019	Computerized Systems for Malaria Epidemiological Data Storage and Analysis	Arata	A
PA-021-2	Environmental Guidelines for USAID Mission Health Officers	Arata	A
PA 022-2	Development of a Vector-borne Disease Control Strategy for the Asia/Near East Bureau	Lacey	A
PA 026-2	Vector Blackfly Survey in the Uniroyal Rubber Plantation at the Liberian Agricultural Company	Arata	C

**ANNEX 3**

**VBC ACTIVITY SHEETS**

VBC FY 1986

ACTIVITY: PA-021-2 CODE:

ACTIVITY SHEET

BUREAU: S&T/H  
COUNTRY:  
QUARTER:  
DATE: BEGIN:  
FIELD VISIT:  
END:

ACTIVITY MANAGER: A. Arata

TITLE OF ACTIVITY: Environmental Guidelines for USAID Mission Health Officers

ORIGIN OF ACTIVITY: S&T/H

AUDIENCE: Mission officers

LOCATION:

OBJECTIVES: To prepare a handbook for mission officers to assist them in preparation of Initial Environmental Evaluations (IEE) for vector control projects

SCHEDULE/ACTIVITY PLAN: 1) Evaluate present guidelines and determine what is needed; 2) draft preliminary suggestions for discussion with S&T/H; and 3) consultant (2 weeks) for drafting final version (Nov.-Dec. 1986)

PERSONNEL/SKILLS REQUIRED:

1) Environmental scientists familiar with pesticide use, malaria, and other vector control measures; 2) experience in LDCs; and 3) familiarity with A.I.D. procedures

PROPOSED PERSONNEL:

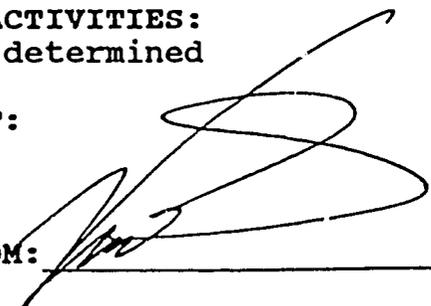
VBC Senior Technical Officer  
Consultant to be named: suggestion - Dr. Thomas Schorr

FOLLOW-UP ACTIVITIES:  
to be determined

S&T CONTACT:

APPROVED:

LEVEL OF EFFORT IN DAYS: 23

BY WHOM: 

FY 86/TOTAL:

DATE: 10/3/86

TOTAL COST: \$8,312

VBC FY 1986

ACTIVITY: PA022-2 CODE: PA022-2

ACTIVITY SHEET

BUREAU: ANE  
COUNTRY: Regional  
QUARTER: 1st  
DATE: BEGIN: June 6  
FIELD VISIT: None  
END: December 15

ACTIVITY MANAGER: R. Lennox

TITLE OF ACTIVITY: Development of VBD Control Strategy for ANE Bureau

ORIGIN OF ACTIVITY: Request from David Oot ANE/HPN/TR

AUDIENCE: ANE Bureau

LOCATION: USA

OBJECTIVES: To develop a strategy paper for the ANE Bureau which will:

1. Identify vector-borne diseases in Asia and Near East which pose serious threats to mortality and morbidity.
2. Identify activities of AID and other donors which address those concerns.
3. Identify major unmet needs in VBD control.

SCHEDULE/ACTIVITY PLAN: 4. Present a range of options for ANE action.

1. Discuss needs for strategy and expectations for distribution and use.
2. Review pertinent documentation.
3. Write strategy and present for review.
4. Revise, edit and distribute document.

PERSONNEL/SKILLS REQUIRED:

Specialists in vector-borne disease control

PROPOSED PERSONNEL:

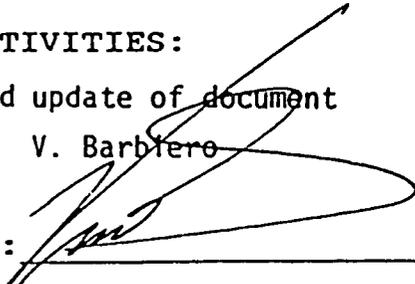
VBC staff L. Lacey to have primary responsibility

FOLLOW-UP ACTIVITIES:

Revision and update of document

S&T CONTACT: V. Barbiero

APPROVED:

BY WHOM: 

LEVEL OF EFFORT IN DAYS: 30

FY 87/TOTAL: 25 p days prof.  
5 p days suppo

DATE: 5/23/86

TOTAL COST: \$6,560

VBC FY 1987

ACTIVITY: PA-026-2

CODE:

ACTIVITY SHEET

BUREAU: AFR

COUNTRY: Liberia

QUARTER: 5th

DATE: BEGIN: December 8, 1986

FIELD VISIT: December 9-20, 1986

END: December 31, 1986

ACTIVITY MANAGER: A. Arata

TITLE OF ACTIVITY: Malaria Control/Ivermectin/Breeding Sites

ORIGIN OF ACTIVITY: S&T/H - V. Barbiero

AUDIENCE:

LOCATION: Firestone Plantation, Liberia

OBJECTIVES: Select blackfly breeding sites for prevalence of Onchocerciasis.

SCHEDULE/ACTIVITY PLAN: 1. Identify field sites for monitoring of infection in blackflies within the project area (UNIROYAL Rubber Plantation).

2. Identify appropriate control sites outside the project area.

3. Determining rates of manbiting for sites selected.

4. Estimate parous rate of flies.

5. Determine blackfly species and densities at site selected.

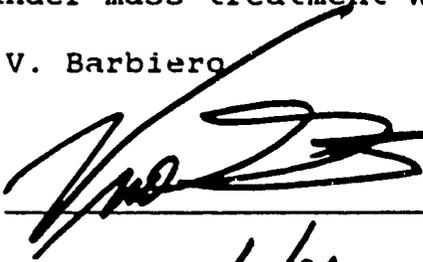
PERSONNEL/SKILLS REQUIRED: Entomologist  
Blackfly field specialists (two)

PROPOSED PERSONNEL: Jamie Childs  
David Fryhauf

FOLLOW-UP ACTIVITIES: Possible 3 year program to monitor transmission from humans under mass treatment with Ivermectin to blackflies.

S&T CONTACT: V. Barbiero

APPROVED: \_\_\_\_\_ LEVEL OF EFFORT IN DAYS: 36

BY WHOM:  \_\_\_\_\_ FY 87/TOTAL:

DATE: 12/6/86 \_\_\_\_\_ TOTAL COST: \$11,265

VBC FY 1986

ACTIVITY: AR-022-2 CODE:

ACTIVITY SHEET

BUREAU: LAC

COUNTRY: Belize

QUARTER:

DATE: BEGIN:

FIELD VISIT: February 16, 1987

END: March 7, 1987

ACTIVITY MANAGER: A. Arata

TITLE OF ACTIVITY: Evaluation: Increased Productivity through Better Health Belize Project 505-0018

ORIGIN OF ACTIVITY: USAID/Belize

AUDIENCE: USAID/Belize & AID/W

LOCATION: Belize

OBJECTIVES: This first interim evaluation is to review the project design, determine whether implementation to date has favorably impacted on the attainment of the project's objectives, and provide recommendations for improving project performance.

SCHEDULE/ACTIVITY PLAN: 1) 3-week evaluation February 16-March 7, 1987; 2) briefing February 13 at VBC; and 3) finalize report by March 31, 1987

PERSONNEL/SKILLS REQUIRED: medical entomologist, social scientist, sanitary engineer

PROPOSED PERSONNEL: Dr. D. Messerschmidt, Social Scientist  
Dr. R. Gearheart, Sanitary Engineer  
Dr. V. Barbiero - at mission expense or  
Mr. L. Cowper - at mission expense

FOLLOW-UP ACTIVITIES: to be determined

S&T CONTACT: S. Dowding, USAID/Belize

APPROVED:

LEVEL OF EFFORT IN DAYS:

BY WHOM:

FY 86/TOTAL: \$18,000

DATE:

TOTAL COST:

VBC FY 1986

ACTIVITY: AR-024-2 CODE:

ACTIVITY SHEET

BUREAU: S&T/Health  
COUNTRY: Nepal  
QUARTER:  
DATE: BEGIN:  
FIELD VISIT:  
END:

ACTIVITY MANAGER: L. Lacey

TITLE OF ACTIVITY: Development of Training Program

ORIGIN OF ACTIVITY: USAID/Kathmandu

AUDIENCE: USAID/Kathmandu

LOCATION: Kathmandu

OBJECTIVES: 1) To update existing training programs especially with respect to mid & upper level Nepal malaria control staff in: arbovirology, parasitology, zoonoses, vector control methods (incl. alternative means); and 2) update existing Training Centre plans to improve training in malaria control and include curriculum and facilities for arbovirology.

SCHEDULE/ACTIVITY PLAN: 1) Briefing, VBC offices; 2) interact with malaria control HQ staff to determine timeframe in which training will occur, number of individuals to be trained/year, subject areas that are most critical; 3) evaluate existing program and facilities; 4) develop curriculum for mid and upper level staff to include in addition to malariology and control, background and operational training in arbovirology, parasitology, zoonoses and integrated vector control; and 5) make recommendations for upgrading training facilities to include arbovirology lab.

PERSONNEL/SKILLS REQUIRED:  
Arbovirologist  
Malariologist

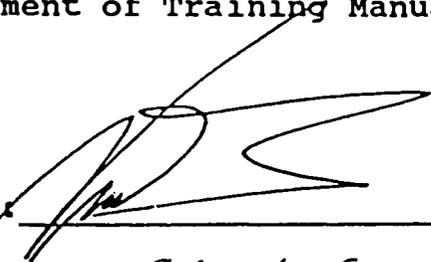
PROPOSED PERSONNEL:  
Mike Service, Liverpool School (malariologist)  
Dwain Gubler, CDC (arbovirologist)

FOLLOW-UP ACTIVITIES:  
Development of Training Manual

S&T CONTACT:

APPROVED:

LEVEL OF EFFORT IN DAYS: 26

BY WHOM: 

FY 86/TOTAL:

DATE: 9/12/86

TOTAL COST: \$10,587

26

VBC FY 1986

ACTIVITY: AR-032-2 CODE:

ACTIVITY SHEET

BUREAU:

COUNTRY: Pakistan

QUARTER: 2

DATE: BEGIN:

FIELD VISIT: December 6, 1986

END: December 18, 1986

ACTIVITY MANAGER: L. Lacey

TITLE OF ACTIVITY: Workshop on Alternative Methods for Control of Mosquitoes

ORIGIN OF ACTIVITY:

AUDIENCE: USAID/Islamabad, Malaria Control Division Pakistan Ministry of Health

LOCATION: Islamabad

OBJECTIVES: Present three-day workshop on various alternative means of vector control including chemical, physical, environmental and biological

SCHEDULE/ACTIVITY PLAN: 1) Workshop planning session (microbial control) Mr. Fukuda in VBC offices, October 24; 2) workshop in Islamabad (December 8-10); 3) post workshop field survey and microbial control demonstrations (December 11-18); and 4) file final report.

PERSONNEL/SKILLS REQUIRED:

Vector Biologist

Invertebrate Pathologist

PROPOSED PERSONNEL:

Production of proceedings of workshop

FOLLOW-UP ACTIVITIES:

S&T CONTACT:

APPROVED:

LEVEL OF EFFORT IN DAYS: 20

BY WHOM:

FY 86/TOTAL:

DATE:

10/3/86

TOTAL COST: \$6,237

VBC FY 1986

ACTIVITY: AR-036-2 CODE:

ACTIVITY SHEET

BUREAU: ANE  
COUNTRY: Egypt  
QUARTER: 2  
DATE: BEGIN: January 1, 1987  
FIELD VISIT: TBD  
END: March 1, 1987

ACTIVITY MANAGER: R. Lennox

TITLE OF ACTIVITY: Egypt - Schistosomiasis Project Paper Design

ORIGIN OF ACTIVITY: USAID/Cairo

AUDIENCE: USAID/Cairo

LOCATION: Egypt

OBJECTIVES: To carry out SOW's developed in Activity AR-034-2 and complete project paper for schistosomiasis research project.

SCHEDULE/ACTIVITY PLAN:

1. Conduct TPM
2. Field Team
3. Complete project paper
4. Secure approval of USAID/Cairo

PERSONNEL/SKILLS REQUIRED:

To be determined (AR-034-2)

PROPOSED PERSONNEL:

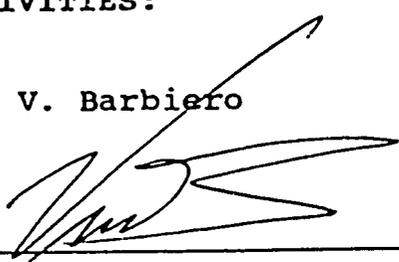
To be determined

FOLLOW-UP ACTIVITIES:

S&T CONTACT: V. Barbiero

APPROVED:

LEVEL OF EFFORT IN DAYS: 303

BY WHOM: 

FY 86/TOTAL:

DATE: 10/3/86

TOTAL COST: \$113,209

22

VBC FY 1987

ACTIVITY: AR-046-2 CODE:

ACTIVITY SHEET

BUREAU: S&T/Health  
COUNTRY: USA  
QUARTER: 2  
DATE: BEGIN:  
FIELD VISIT: None  
END:

ACTIVITY MANAGER: VBC Staff

TITLE OF ACTIVITY: Preparation of Vector-Borne disease background and strategy papers.

ORIGIN OF ACTIVITY: Regional

AUDIENCE: S&T/Health: Missions: Regional Bureaus

LOCATION: Washington, DC

OBJECTIVES: To prepare 10 documents on important tropical diseases (list attached) to serve as background and strategy papers for USAID.

SCHEDULE/ACTIVITY PLAN: 1. Select and contact authors - Jan. 15-25, 1987  
2. Send all documentation to authors by Feb. 5, 1987.  
3. First drafts due at VBC by end of Feb. 1987.  
4. Editing and revisions to be done in March. 1987.  
5. Find copies to be completed by end April 1987

PERSONNEL/SKILLS REQUIRED: High technical ability and experience with the individual diseases.

PROPOSED PERSONNEL: see attached list

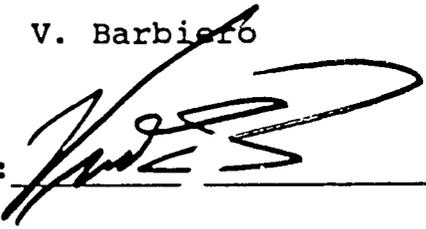
FOLLOW-UP ACTIVITIES:

- a) distribution of documents (in conjunction with S&T/Health)
- b) updating as needed

S&T CONTACT: V. Barbiero

APPROVED:

LEVEL OF EFFORT IN DAYS: 50 days

BY WHOM: 

FY 87/TOTAL:

DATE: \_\_\_\_\_

TOTAL COST: \$24,775

VBC FY 1986

ACTIVITY: CE-014-2 CODE:

ACTIVITY SHEET

BUREAU: ANE  
COUNTRY: Burma  
QUARTER: 4th  
DATE: BEGIN: November 1, 1986  
FIELD VISIT:  
END: March 31, 1987

ACTIVITY MANAGER: R. Lennox

TITLE OF ACTIVITY: Entomology Course for Medical Assistants

ORIGIN OF ACTIVITY: Request from USAID Rangoon

AUDIENCE: Burmese National

LOCATION: Rangoon, Burma

OBJECTIVES: Teach course in Medical Entomology for 7-10 Burmese  
Nationals

SCHEDULE/ACTIVITY PLAN: 6-month course from November 1, 1986 - March  
31, 1987

PERSONNEL/SKILLS REQUIRED: Course in structures from U.S. consultants  
and WHO Geneva

PROPOSED PERSONNEL:

M. MacDonald, VBC  
J. Graham, VBC  
A. Ismail, WHO  
R. Slooff, WHO

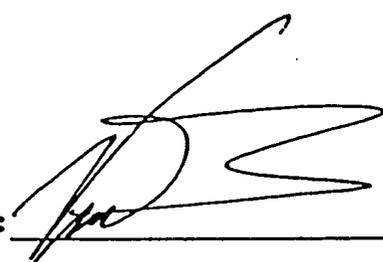
N. Gratz, WHO  
D. Muir, WHO  
M. Mulla, VBC  
C. Schaeffer, VBC

FOLLOW-UP ACTIVITIES:

S&T CONTACT:

APPROVED:

LEVEL OF EFFORT IN DAYS: 223

BY WHOM: 

FY 86/TOTAL:

DATE: 10/3/86

TOTAL COST: \$75,450

VBC FY 1986

ACTIVITY: CE-015-2 CODE:

ACTIVITY SHEET

BUREAU: ANE

COUNTRY: Burma

QUARTER:

DATE: BEGIN: September 1, 1986

FIELD VISIT:

END: August 31, 1987

ACTIVITY MANAGER: R. Lennox

TITLE OF ACTIVITY: Reference List for Library in Rangoon, Burma

ORIGIN OF ACTIVITY: Visit of Dr. Lennox (February '86)

AUDIENCE: Burmese Nationals

LOCATION: Rangoon, Burma

OBJECTIVES: Prepare comprehensive list of books and teaching materials for use of the Burmese

SCHEDULE/ACTIVITY PLAN: September 1, 1986 - August 31, 1987

PERSONNEL/SKILLS REQUIRED:  
Information Specialist

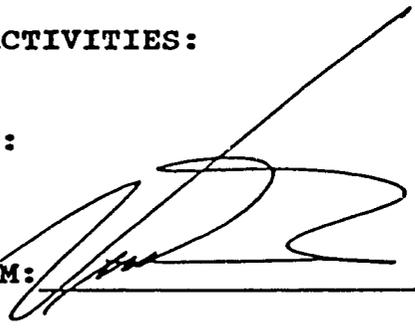
PROPOSED PERSONNEL:  
I. Auston

FOLLOW-UP ACTIVITIES:

S&T CONTACT:

APPROVED:

LEVEL OF EFFORT IN DAYS: 18

BY WHOM: 

FY 86/TOTAL:

DATE: 10/3/86

TOTAL COST: \$3,975

25

VBC FY 1986

ACTIVITY: CE-017-2 CODE:

ACTIVITY SHEET

BUREAU: AFR  
COUNTRY:  
QUARTER: 4th  
DATE: BEGIN:  
FIELD VISIT:  
END:

ACTIVITY MANAGER: A. Arata

TITLE OF ACTIVITY: Assessment of non-target organisms in OCP expansion area prior to initial insecticide spraying

ORIGIN OF ACTIVITY: OCP/Africa Bureau

AUDIENCE: OCP/WHO/West Africa

LOCATION: OCP Area, W. Africa/Guinea & Mali

OBJECTIVES: To assess fresh water biodata in OCP expansion zone prior to insecticide application to provide baseline data for ecological evaluation of planned blackfly control measures

SCHEDULE/ACTIVITY PLAN: 1) Initial contact with Ecological Group chairman in Ghana, week of December 8, 1986; 2) coordination with ORSTOM hydrobiologists in Bouake, Ivory Coast; 3) 4-5 weeks in study area in Mali and Guinea; and 4) preparation of report at site selected by OCP

PERSONNEL/SKILLS REQUIRED:

- 1) Qualified fresh-water biologist
- 2) African experience
- 3) Fluent French

PROPOSED PERSONNEL:

Dr. Boyd Hanson

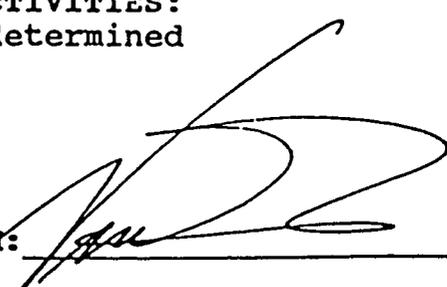
FOLLOW-UP ACTIVITIES:

to be determined

S&T CONTACT:

APPROVED:

LEVEL OF EFFORT IN DAYS: 56

BY WHOM: 

FY 86/TOTAL:

DATE: 10/3/86

TOTAL COST: \$22,755

26