

memorandum

DATE: March 20, 1991
 REPLY TO: Sarah George
 ATTN OF: Sarah George, Project Officer, General Development Office
 SUBJECT: Project Assistance Completion Report for Vector Control Project (517-0235)
 TO: Project Committee and the Files

This report documents the final status of the subject project as of the Project Assistance Completion Date (PACD) of, May 30, 1990

I. Brief Project History

In August 1986, USAID/DR signed a three-year, US\$1.5 million cooperative agreement with the University of South Carolina (USC) to implement a vector control project (No. 517-0235) in the Dominican Republic. The original PACD of September 11, 1989 was extended (no cost) to May 30, 1990 in order to allow completion of some EOP objectives not possible during the original LOP. The date of authorization was August 22, 1986, the date of obligation September 16, 1986.

The purpose of the project was to research and test a limited number of ecologically sound, low cost, effective interventions in vector-borne disease control, specifically for malaria and dengue. USC entered into sub-agreements with two local institutions: the Universidad Católica Madre y Maestra (UCMM) and the Servicio Nacional para la Erradicación de la Malaria (SNEM). USC provided technical assistance (TA) and training to UCMM and SNEM. In turn, UCMM conducted operational research and SNEM field-tested vector control measures resulting from the operational research activities.

The project was structured around three basic components: (1) the collection and accumulation of baseline data on vectors of malaria (four anopheline species, principally Anopheles albimanus) and dengue (Aedes aegypti); (2) research in control techniques developed from baseline studies; and (3) field testing of control methodologies resulting from the research.

Major outputs planned during the LOP were: (1) In-country short courses, (2) In-country training of people, (3) Masters degree training in vector control, (4) Short-term participant training for senior staff of UCMM and SNEM, (5) The testing of

three dengue interventions, (6) The testing of three malaria interventions, (7) The establishment of a laboratory at SNEM and UCMM, and (8) The establishment of insectaries (mosquito-rearing facilities) at SNEM and UCMM.

EOP objectives were: (1) The UCMM vector control laboratory will be able to perform basic operations research related to vector control for malaria and dengue; (2) The UCMM faculty will be able to design, implement, and evaluate the technical, economic and financial dimensions of at least three intervention; (3) UCMM will be able to provide training sessions on vector control for personnel in agriculture and tourism; (4) SNEM staff will have the capacity to apply new vector control techniques proven successful during field trials; (5) SNEM will be able to apply operations research protocols; (6) A permanent link will exist between UCMM and SNEM for conducting vector control research; and (7) Recommendations for a follow-on national project will have been developed.

II. Delivery of Project Input

Technical Assistance: The project allocated \$631,000 in A.I.D. funding to cover long and short-term TA. This amount was amended to \$725,373 to cover the 9-months extension period from November 11, 1989 to May 30, 1990. The project provided for 20 person-months (ca. 600 consultant-days) of short-term TA including inputs in: operational research, epidemiology, ULV operations, malariology and vector control (8 p/m); entomology (7 p/m); computerized data management (2 p/m); training and health education (1 p/m); and management (2 p/m). A total of 675 man-days was actually used during the LOP. TA was well distributed and met project needs.

Training: The project allocated \$197,000 for training (A.I.D. 93,000; HC 104,000). The project extension amount was 94,530 for A.I.D.'s portion. Training included: In-country short courses - 12 planned, 14 completed (100%); In-country training of people - 285 planned, 302 trained (100%); Out-of-country masters degrees - 3 planned, 1 completed (33%); Short-term participant (on-the-job) training or senior staff - 7 planned, 16 completed (100%). Of the 3 masters degrees planned, one was completed (UCMM staff member), one was partially completed (SNEM staff) and one identified candidate left SNEM before commencing training.

Commodities: The project budgeted \$285,000 for commodities (A.I.D. 270,000; HC 15,000). amended to 296,432 (A.I.D. 281,432; HC 15,000). Major acquisitions included 8 vehicles (3 van, 5 motorcycles for spaymen) - 56,000; 14 microscopes - 14,300;

spray equipment - 25,600; computerization equipment - 15,000; laboratory equipment and supplies 82,710; office equipment and supplies - 20,500; insecticides 11,900. Shipping accounted for 40,000.

Support Costs: Original support costs were budgeted at \$351,000 (A.I.D. 30,000; HC 321,00). This category was amended downward to 324,805 (AID 3,805; HC 321,00). These funds were used for staff salaries and support at both UCMM and SNEM.

Construction/Land: These funds (60,000 HC) were totally allocated and used for the establishment of the UCMM laboratory at Santiago.

Evaluation: A.I.D. budgeted \$50,000 for a mid-term and final evaluation. Both were conducted (Mid-term, August 1988; Final, February 1991). In addition, there was an external extension-request in May 1989.

The AID/DR Status Summary Report for the six-month period ending March 31, 1990 shows that \$1,134,021 of the \$1,500,000 (75%) allocated for the project was expended and that the RDS budget of 146,400 was 100% expended with 100% of the LOP elapsed.

III. Counterpart Contribution

Original host country contribution were to be, by category (US\$): Training - \$104,000; Commodities - 15,000; Support Costs - 321,000; Construction/Land - 60,000. All counterpart contributions were made during LOP. Training funds were used primarily for UCMM and SNEM staff, both in-country and out-of-country; Commodity funds were pooled with the A.I.D. funds of 270,000 (Section II); Construction/Land funds were used to establish temporary research facilities at UCMM; the construction, staffing and equipping of the permanent vector control laboratory; and the establishment of other laboratory and insectary facilities at both UCMM and SNEM. HC support included both cash and in-kind inputs to cover the project's operating costs, including staff at both UCMM and SNEM. Also included were the use of facilities, travel and per diem costs of field operations.

In-kind contributions (USC Final Report data) included: USC - \$150,000 in staff salaries; UCMM - 146,000 pesos in salaries and administrative support; SNEM - \$49,693 for salaries, space and equipment.

IV. Project Accomplishments (EOPS)

Six of seven planned EOPS had been completed at the PACD: (1) A functional vector control laboratory is in-place at UCM; (2) UCM faculty (three members) have been trained to design, implement and evaluate the technical, economic and financial dimensions of malaria and dengue intervention; (3) UCM is able to provide training sessions on vector control for SNEM, as well as for agriculture and tourism interest; (4) SNEM has the capacity to apply new vector control techniques proven applicable during field trials; (5) SNEM can now apply operational research protocols to improve control efficacy; (6) A "permanent" link exists between SNEM and UCM for conducting vector control research. The seventh planning EOP, calling for a follow-on national project, is yet to be realized, but UCM has taken the lead by seeking funds to complete that objective. The project produced two field-tested interventions for malaria (truck-mounted spraying with ULV and thermal fog sprays; and the use of B.t.i., a mosquito larvicide of bacterial origin). Six interventions were developed for dengue (truck-mounted ULV spraying; intradomiciliary residual spraying of curtains; area aerial spraying with ULV malathion; use of larvivorous mosquito-eating fish in household water-storage tanks; perifocal thermal fogging; and a community participation project to limit mosquito breeding in some barrios). Training accomplishments are given in Section II.

V. Progress Towards Achievement of Project Purpose

The project purpose of establishing an institutional capacity in the Dominican Republic to research and test a limited number of ecologically sound, low-cost, effective interventions in vector-borne disease control, specifically for malaria and dengue was achieved. At EOP UCM has an operational vector control laboratory capable of conducting appropriate research and training. SNEM has the ability to apply operational research protocols and there is a formal link between the two institutions, backed by a signed institutional agreement.

VI. Project Design Adjustments

Appropriate adjustments were made in the project during LOP, mainly in efforts to overcome constraints, amending time frames to elucidate biological phenomena not subject to the calendar, and improving collaboration between the participants. Recommendations are that future research projects not be so severely restricted by rigid time frames

(see Section IX), and pre-planned operational results should not be expected.

VII. Requirement for Continued Monitoring

There is no requirement for continued monitoring of project activities or objectives - however, both SNEM, through the development of a stratification plan; and UCMM, through the quest for funds to support a follow-on national project continue to employ project outputs. Though not required, an occasional "look-see" by AID/DR at the SNEM and UCMM laboratories would seem to be a positive step toward maintaining the principal gains made under the project.

VIII. Requirement for Further Data Analysis or Evaluation

Since all project activities have terminated and the project has been subjected to a mid-term evaluation, an extension assessment, and a final evaluation, additional evaluations are not needed. Also, USC, the grantee, has provided a final report extensively detailing accumulated data, research accomplishments, and post-project projections.

IX. Summary of Lessons Learned

In a project such as this, LOP constraints are a given. That SNEM had a difficult fiscal and personnel situation (five different directors during the project) was well known at implementation, yet some unrealistic assumptions were made on the basis of a projected smooth course. Indeed, SNEM weaknesses in vector control, detailed in the Project Paper, were a major justification for the project.

The project was essentially a research project - thus, it was unrealistic to set rigid time frames (phases) on the elucidation of biological phenomena; to require that a set number (six) of interventions be developed; to expect a major reduction in malaria and dengue as a result of research (benefits will be post-project); to expect expeditious purchasing, shipping and delivery of commodities, expert maintenance, etc., in an atmosphere of known inadequacies.

The implementation of a Project Advisory Committee came late in the project and it met only infrequently. There was generally not a mechanism for participants to address grievances or anticipate problems before they arose. More

frequent meetings of a more cohesive group would have provided some help. Future projects of this type should have one person designated by each collaborating institution assigned to project matters. A written agreement between SNEM and UCMM, detailing responsibilities of each, came toward the end of the project for follow-on work and then, only after strong recommendations by external evaluators.

Although perhaps merited, the major beneficiary of the project was UCMM, an institution with no legal mandate or responsibility for vector control in the DR. Perhaps, in future projects, institutional responsibility for applying outputs, should be a consideration in determine inputs.

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