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CLASSIFICATION  
PROJECT EVALUATION SUMMARY (PES) - PART I

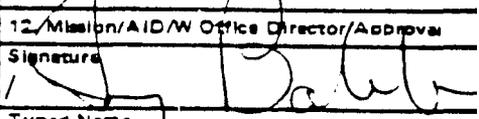
Report Symbol U-447

1. PROJECT TITLE Control of Vertebrate Pests			2. PROJECT NUMBER 931-0473	3. MISSION/AID/W OFFICE DS/AGR
Contract No.: PASA/ID/TAB-473-67 Denver Wildlife Research Center			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>80-48</u> <u>7/16/80</u>	
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	
A. First PRO-AG or Equivalent FY <u>67</u>	B. Final Obligation Expected FY <u>80</u>	C. Final Input Delivery FY <u>80</u>	A. Total \$ <u>7,585,000</u>	B. U.S. \$ _____
			7. PERIOD COVERED BY EVALUATION	
			From (month/yr.) <u>10/1/78</u>	
			To (month/yr.) <u>9/31/79</u>	
			Date of Evaluation Review <u>12/4-7/79</u>	

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., program, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
<p>The Evaluation Team found that substantial progress had been made in research, technical assistance and training and recommended that the Project be continued with the following modifications:</p> <p>A. Reduce placement of DWRC long-term scientific personnel in LDCs as LDC counterpart personnel develop their own expertise;</p> <p>B. Improve information dissemination through: 1) Documentation prepared specifically for AID regional bureaus, USAIDs and LDC institutions on DWRC functions and services; 2) publication of program-generated information for the use of LDC farmers and farmer institutions on pest control technologies;</p> <p>C. Greater use of economic analysis during development of project-supported activities.</p> <p>In keeping with the Team recommendations:</p> <p>1. Prepare a project proposal for consideration within DSB and by the TPCA, including identification of funding by source and year.</p> <p>2. Verify whether Congressional Presentation has to be modified and prepare Congressional Notification.</p> <p>3. Notify RAC of plans to continue this activity.</p>	<p>DS/AGR, JWalker</p> <p>DS/AGR, M Mozynski</p> <p>DS/PO, MRechcigl</p>	<p>March 1980</p> <p>July 15, 1980</p> <p>June 17, 1980</p>

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT		
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	A. <input type="checkbox"/> Continue Project Without Change		
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	<input type="checkbox"/> Other (Specify) _____	B. <input checked="" type="checkbox"/> Change Project Design and/or		
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C		<input type="checkbox"/> Change Implementation Plan		
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P		C. <input type="checkbox"/> Discontinue Project		

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)		12. Mission/AID/W Office Director/Approval	
DS/AGR/L, J. Walker	DS/AGR, K. Byergo, Dep. Dir /s/	Signature	
DS/AGR/D, T. O'Hare /s/		Typed Name-	Tony Babb, DS/DAA/FN
DS/AGR, M. Mozynski /s/		Date	11/16

## PROJECT EVALUATION SUMMARY (PES) - PART II

### #13 - Summary

The need for improved food production systems has led to an increased emphasis on crop protection and a greater awareness of the yield losses in developing countries resulting from animal damage.

At the time the AID/DWRC agreement was initiated, little was known about vertebrate pest biology/control as it relates to food production systems in the developing countries. As a result of AID funded projects, the DWRC has expanded the body of scientific literature relating to the control of animal damage and explored new methodologies for assessing that damage. Research models have been developed and LDC scientists have been provided opportunities to research local agricultural problems.

DWRC has been able to make substantial progress in the attainment of predetermined goals for major projects in the Philippines, Sudan, Bangladesh, and Haiti. The vampire bat control project has been brought to a successful conclusion. As a result of this program's component projects numerous field and laboratory techniques have been developed which will enjoy wide application in other pest biology/control projects.

### #14 - Evaluation Methodology

The project was evaluated at this time with the objective of performing a comprehensive analysis of the project's planning, organization, operation, budgeting, and research components.

The project was evaluated by a team of four recognized livestock scientists who reviewed in detail issues relating to project implementation with DWRC staff members. The evaluation team was composed of:

William D. Fitzwater, Director, Biologic Consultants, Chairman

Dr. Robert E. Gray, Special Assistant to the Deputy Director of Technical Assistance, Office of International Cooperation and Development, USDA.

King L. Lovinger, Director of the Information Division of Animal and Plant Health Inspection Service, USDA.

Dr. John W. Walker, AID, DSB/AGR/L, Project Manager.

The following DWRC staff members participated in the evaluation sessions:

Clyde Jones	Richard Curnow	Michael Fall
Richard L. Bruggers	G. Clay Mitchell	John De Grazio
Donal S. Balser	R. Daniel Thompson & Staff	Glenn A. Hood
Howard P. Tietjen	William Dusenberry	Charles P. Stone

#### #15 - External Factors

The need for a greater understanding of the magnitude of food and fiber losses resulting from vertebrate pests and the need to design and implement programs to control those losses has not changed. During the life of this project an increased awareness of food losses during both the production and distribution processes has developed on the part of AID, other donors, and recipient countries. In several countries, as in the case of the Philippines, vertebrate pest control systems have been incorporated into national small farmer rural development strategies. With additional experience on the part of DWRC and recipient countries, the program will develop an increased expertise. A critical mass of knowledge and expertise has been generated which will prove valuable in the development of future control projects.

#### #16 - Inputs

DWRC has not encountered serious problems with respect to the delivery of project inputs. During 1978 DWRC scientists and consultants spent 435 person days in 24 countries working on evaluations, cooperative studies with host-country scientists, liaison/coordination with international research organizations, and training. Support is continually requested by AID/W, USAIDs, Regional Bureaus, Regional Offices, and cooperating countries.

#### #17 - Outputs

Some of the program's more recent outputs would include; the demonstration that Rhodamine B is a highly effective marker when used in a grease formulation, the determination that DRC 4575 has the potential for use as an acute rodenticide, the development of an automated computer system which determines the daily feeding patterns of rats, and the demonstration that microtaggant plastic particles can be employed as a bait mark and to topically mark birds and rodents.

In the Philippines, the national government has adopted a series of recommendations which have resulted in the implementation of an effective method of rice field rodent control through sustained baiting with anti-coagulants by small farmers. In a similar action, Philippine rodent control programs were reorganized to incorporate improved methods developed by project personnel. Vertebrate pest control research and training has been incorporated into the Philippine National Crop Protection Center's Program. More than twenty Philippine graduate students have completed thesis work in association with the project.

In the Sudan, the project determined that the widely practiced population reduction bird control programs were ineffective and uneconomical. Indications resulting from project sponsored field trials are that an effective protection of small grain crops from bird damage can be achieved with relatively low levels of methiocarb repellent head sprays.

In Bangladesh the Agricultural Research Institute has formed a Vertebrate Pest Division, which has selected counterpart personnel and established cooperative ties with other institutions. A new laboratory and office facility has been put into operation. The project has sponsored workshops and training sessions for personnel from the Agricultural Research Institute and other government agencies. During 1979 a nationwide survey of wheat rodent damage was completed. The survey placed wheat yield losses at 12 percent or an estimated \$15 million at current domestic prices.

The program's Haitian project gathered information relevant to vertebrate pests and their impact on that nation's agricultural sector. A feasibility study was performed regarding the possibilities of topically treating corn plants with chemical control agents as deterrents to cotton rats (*Sigmodon hispidus*).

#### #18 - Purpose

The project purpose is to increase small farmer incomes and the supply of food in developing countries by reducing that damage to field crops caused by rats and noxious birds. Project purpose is met in part by; in-country programs, IDY activities by DWRC at the request of AID/W, USAIDs, and cooperating countries, and the continuous research activities of DWRC relevant to rats and noxious birds. A greater utilization of economic impact analysis in future evaluations will provide greater insights into project's attainment of its stated purpose; the increase of both small farmer incomes and food supplies through vertebrate pest control.

#### #19 - Goal

The project goal is to develop safe, economical, and effective vertebrate pest control methods that are compatible with social and economic conditions existing in developing countries. All methods developed or in development are consistent with scientific principles. Special attention is devoted to those demands that are unique to small farm systems. Progress indications from countries like the Philippines and Nicaragua, where certain types of Vertebrate pest damage have been reduced or eliminated, demonstrate that project activities have been and continue to be consistent with stated goals.

#### #20 - Beneficiaries

The Vertebrate Pest Control Project has been designed and implemented in such a manner as to generate a positive benefit stream accruing directly to the cooperating countries' small farmers. Additional benefits accrue to urban consumers when food prices tend to stabilize as a result of the increased supplies generated by the reduction of vertebrate pest related losses.

While vertebrate pests are not the only sources of crop losses that small farmers incur, their damage is extensive and costly. It has been estimated that \$25 million is lost each year to rats by Bengali wheat farmers. Vertebrate pests consume an estimated \$100 million of the grain crop annually in affected African countries. The project has had an impact in reducing these losses. Rat damage on 500,000 hectares of small holder rice in the Philippines has been reduced from five to one percent, generating a savings of approximately \$50 million every year for those producers. In the Philippines and Colombia, the project produced control systems that have been effective in the reduction of rat damage to coconuts.

The project has had and is expected to have substantial impacts upon income distribution. Farmers who invest their limited land, labor, and other resources in recommended technological farming packages can expect to receive an increased return from their efforts rather than losing a portion of their production every harvest to pests.

#### #21 - Unplanned Effects

Due to time and logistic constraints, the Review Committee did not address this issue.

#### #22 - Lessons Learned

It was the opinion of the reviewers that the Vertebrate Pest Control Project could serve as a model for the development of projects of a similar nature. Some of the factors which have contributed to the success of the project are: an integrated approach which includes research, training, and interaction with local institutions to develop and implement programs to utilize suitable pest control methods in problem situations; a development approach based upon local field trials in each situation to provide not only the necessary scientific proof of technology but also as a major step in the process of developing effective implementation programs which can be sustained by local institutions; and the complementarity of U.S. domestic and international programs.

#23 - Remarks

The Review Team recommended that the Vertebrate Pest Control Project be continued for an additional three years beyond the present termination date of September 30, 1980.

The Review Team also recommended that DWRC researchers working in host countries should be gradually phased out of long-term projects as host country counterparts become fully trained. With respect to the dissemination of information, the team had two recommendations; publications should be prepared with the expressed purpose of familiarizing regional bureau, USAID, and LDCs with the functions and services of the DWRC and that greater attention should be devoted to disseminating DWRC generated information to individual farmers as well as incorporating animal damage control techniques and tools developed through research into LDC farming systems. It was recommended that future evaluations should include a close look at field projects by experienced, knowledgeable reviewers as a means of determining host country acceptance of the validity and usefulness of DWRC research. Finally, the team recommended that a greater use of economic analysis should be made throughout the life of all research projects. Economic data are important for project justification; are needed to motivate farmers to participate in research projects and to utilize solutions found; are a vitally important factor in prioritizing alternative solutions, and are useful in determining whether or not potentially useful lines of research should be followed.

Attachments

Number of Pages

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