

CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

1. PROJECT TITLE REGIONAL FOOD CROP PROTECTION ANNEX A PHASE II	2. PROJECT NUMBER 625-0928	3. MISSION/AID/W OFFICE USAID/SENEGAL
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)		
<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION		
5. KEY PROJECT IMPLEMENTATION DATES A. First PRO-AG or Equivalent FY <u>6/28/75</u> B. Final Obligation Expected FY <u>84</u> C. Final Input Delivery FY <u>85</u>	6. ESTIMATED PROJECT FUNDING A. Total \$ <u>28,000</u> B. U.S. \$ <u>20,000</u>	7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>December 1978</u> To (month/yr.) <u>January 1980</u> Date of Evaluation Review <u>January 23, 1980</u>

8. 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., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Increase staff and PASA support	RPM and USDA	ASAP
2. Coordinate activity with CILSS and Sahel Institute	RPM and Training Officer	Continue to end of project
3. Negotiate new agreement with Chad	RPM	ASAP
4. Accelerate Training	Training Officer	ASAP
5. Amend Grant Agreements	RPM	July, 1980
6. Continue to develop crop loss assessment and cost/benefit data	RPM through CPO's and National Services.	Continue to end of project

Clearance: PRM:Sam Rea _____

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS <input type="checkbox"/> Project Paper <input type="checkbox"/> Implementation Plan e.g., CPI Network <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Financial Plan <input type="checkbox"/> PIO/T <input type="checkbox"/> Logical Framework <input type="checkbox"/> PIO/C <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Project Agreement <input type="checkbox"/> PIO/P	10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT A. <input type="checkbox"/> Continue Project Without Change B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan C. <input type="checkbox"/> Discontinue Project
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11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles) Channing J. Fredrickson, Regional Project Manager John Gruwell, Assistant to PRM	12. Mission/AID/W Office Director Approval Signature _____ Typed Name <u>David Shear</u> Date <u>February 5, 1980</u>
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13. SUMMARY

The emphasis has been placed on increasing yields of basic food crops in the Sahel by assisting the small farmer. The need to control insects, diseases, birds and rodents is critical. The drought years dramatically demonstrated the need to control pests and Phase II of the project integrates with other efforts to increase food production in the Sahel. Presently seven countries participate in the project with bilateral grant agreements and obligations to date total Dollars 6.5 million.

Two Training Centers for "live-in" students have been constructed at Dakar, Senegal and Yaounde, Cameroon. To date four courses have been held in Dakar and twelve in Cameroon. Additionally field training of several hundred extension agents has been undertaken in Senegal, The Gambia, Guinea Bissau, Cameroon and Chad.

A Pesticide Management Seminar was held in Dakar for 70 participants from across the Sahel. Thirteen long term participants are receiving degree training in Entomology/Plant Pathology in the U.S. and 8 more are scheduled to leave in 1980. The project is an integral part of an overall regional effort which includes host country inputs to the project totalling dollars 4 million for personnel and other costs. The Integrated Pest Management Project for Research in food crop pests (IPM) under the direction of the CILSS has the support of the Club du Sahel and collaboration of FAO, OECD, WARDA, IITA, University of California contract with AID and other international organizations which complement and supplement the Phase II of the Regional Food Crop Protection Project.

Through strengthening the National Services in their ability to combat pests, and capacity to demonstrate, train and assist small farmers in integrated pest management practices a reduction in pre- and post harvest losses will result. It is estimated that three million small family farm units will benefit in future years. This process is accelerating rapidly with the two Training Centers now on stream.

14. EVALUATION METHODOLOGY

This review occurred on schedule and at an appropriate time following the Third Annual Training Conference which brought together the Crop Protection Directors of the National Services and all project staff including Training Center personnel from Dakar and Yaounde. In the evaluation, the Project Paper, former PES, Country Reports, Training Centers documents and oral reports were utilized in the preparation of this PES.

The following persons participated in this review:

USAID/Regional Crop Protection Project

- Regional Project Manager : Channing J. Fredrickson
- Deputy Regional Project Manager : John A. Gruwell
- Country Project Officers : David Perkins
William Overholt
- Regional Training Officer : John Franklin
- Assistant Regional Training Officer : Carl W. Castleton
- Entomology Advisor (PC) : Celeste Welty
- USDA Coordinator : Joseph Gentry
- USDA PASA Administrator : Lula Mae Dennison

15. DOCUMENTS TO BE REVISED include the amendments to Grant Agreements providing funding for FY 80. A new Grant Agreement is to be negotiated in Tchad.

16. EXTERNAL FACTORS

As a result of progress made in Phase I of the project, two additional countries, Guinea Bissau and Mali requested participation in the project. A Grant Agreement has been signed with Guinea Bissau and a participant training program has been developed with Mali. Despite the additional workload created for the U.S. staff, the overall progress of project activities is notable. Likewise the development of the CILSS/IPM program required a considerable amount of input from the RPM and others on the staff. Efforts are nevertheless underway to coordinate activities to the maximum extent possible with the CILSS/FAO/AID crop protection program and the training activities with the SAHEL Institute. It appears that Annex A (this project) will be the practical Implementing Arm of Annex B (IPM Research) in the near future.

As a result of the war in Tchad vehicles and equipment supplied were destroyed and the Director of the Crop Protection Service has made an urgent appeal to renew our program in that country. It is planned to negotiate a new Grant Agreement in March of 1980. (See Annexe 4).

There have been reports of pilferage of mbylettes and bicycles in Cameroon and indiscriminate use of project vehicles in Mauritania by the Ministry. Every effort is being made to correct these occurrences.

EPA restrictions on pesticide use continue to create problems as products supplied to the Sahel countries by the Office of Sahelian Relief Operations (OSRO) are procured from several donors and continue to be used in Plant Protection Programs. All project staff continue to promulgate the use

of environmentally acceptable materials as the occasions arise.

17. EVALUATION RELATIVE TO GOAL

Activities relating to the indoctrination of integrated pest management technologies have already been numerous. To cite a few briefly we can mention the following:

William Overholt, now Country Project Officer in Mauritania, identified the first Cassava Mealy Bug found in Senegal. It is an introduced species originating in Brazil. In the absence of its natural parasites, it spread rapidly in the Cassava growing areas and is a most destructive pest reducing yields 50 percent or more. Tests undertaken by Overholt showed promise when Cassava cuttings are treated with pesticides before planting. An attempt at biological control failed as the imported parasitic wasps were in turn attacked by a hyperparasite introduced at the same time. Instruction on Mealy Bug control is part of the course material at the Training Center. Overholt presented a paper at the Cassava Conference in Freetown, Sierra Leone.

In Cameroon David Perkins carried out trials on cowpeas in storage. A simple method has been developed using ground nut oil or palm oil to reduce infestation by the cowpea weevil. The oil treated cowpeas had only 20 percent of the infestation in untreated cowpeas and the treatment remained effective for 4 to 6 months. Agricultural agents and researchers in northern Cameroon were instructed in the method of treatment and Perkins presented a paper at the Plant Protection Congress in August 1979 which through the proceedings will be circulated worldwide.

Also in Cameroon Perkins demonstrated the most effective means for the control of the parasitic weed Striga. This important weed is particularly damaging to food crops. The general practice used by the small farmers is to pull the weeds and leave them lie whereas pulling and burning prevents reinfestation. A locust survey was undertaken by the CPO in Cameroon at the request of the RPM, following reports of locust infestation near Kousseri and requests from OICMA for immediate help. The total survey area comprised about 30,000 Km². Results of the survey indicated that no serious infestations were present in Kousseri; however, a serious infestation was developing in Yagoua. Furthermore, the concerned locust species was determined to be the migratory locust, rather than the reported red locust. Determination of degree of infestation, location of infestation, action being taken, supplies on hand, and future needs, allowed project personnel and the Crop Protection Service to be alerted for action.

It prevented unnecessary allotment and movement of pesticides and treatment equipment and personnel to an area where the reported locust were non-existent. Some 1500 hectares were treated and the area is now reported calm.

Survey forms have been prepared and surveillance teams established in Camerron, Mauritania and the Gambia. An insect pest and disease survey was carried out in Guinea Bissau and a team is being trained in that country.

In the Gambia extensive trials have been undertaken for control of the major pests of the principal food crops as indicated in the annual report from the Crop Protection Service. Survey and test plot methodologies for these trials were initiated by the CPO's for that country.

In all the countries reference collections of major field crop pests are being prepared and the resources of the Smithsonian are being utilized to identify specimens which may be doubtful. Several Hundred specimens have been so identified.

18. EVALUATION RELATIVE TO PURPOSE

Attached reports presented at the Third Annual Meeting show the significance of activities underway to strengthen the Crop Protection Services. As training activities continue the impact of the program will become more evident except where external factors played a role (See 16).

19. EVALUATION RELATIVE TO OUTPUTS AND INPUTS

The expected outputs of the project have been essentially achieved as will be noted by the enumerated activities:

(1) Two "live in" Training Centers for Crop Protection personnel for training at various levels are now operational in Dakar and Yaounde.

(2) A serious handicap in recruiting participants for academic training in the U.S. has been overcome by assistance from U.S.D.A in setting up language training in the Universities prior to undertaking the course work. There are now 13 long term participants in the U.S. and 8 more are programmed to go.

(3) As conceived in the Project Paper a closer collaboration with Peace Corps was determined desirable and volunteers newly arrived to the Sahel some of whom were degree entomologists were given orientation training at the Dakar Training Center to acquaint them specifically with the pests and diseases of the region. These volunteers are assigned to various crop protection activities in their respective countries. This type of collaboration will continue during Phase II.

(4) Through inputs made by the project, the National staff of the services have been dramatically increased. In the case of the Gambia from 10 persons in 1976 to 100 to-day. Senegal has increased its crop protection staff 100 percent during this period. Similar figures can be given for the other participating countries and an entire new service was established in Guinea Bissau. Due to this rapid increase, the national services have requested more experts as counterparts. The RPM, through the USDA PASA, is in the process of obtaining official requests from the host country governments.

(5) A training program was carried out with SODEVA and similar programs are being planned with other national institutions as well as international organizations such as OCLALAV, Sahel Institute, UNDP Horticulture Project, ORSTOM, and others.

(6) A Phytosanitary national meeting was conducted in Cameroon under the project direction which brought together the National Crop Protection Service, Extension Services, and Research Units which is aimed at increasing communication between the services and staff. Similarly Seminars on a Regional basis such as the Pesticide Management Seminar held in Dakar in February 1979, brought together the higher level of professionals in the Sahel, some 70 participants in all. A seminar scheduled for December, 1980 on biological control will bring together another professional group to further the goals of IPM.

20. UNPLANNED EFFECTS

There have been no apparent unplanned effects experienced.

21. CHANGES IN DESIGN

There has been no change in the design of Phase II at the time of this evaluation.

22. LESSONS LEARNED

The previous PES cited the difficulty in staffing the American input for the project. The problems are difficult to overcome because of French language training recruitment process, clearances, etc.. Adequate lead time is necessary. This also pertains to procurement of commodities and negotiating contracts and agreements. It was found that additional amounts need to be budgeted to account for inflation and depreciation of the Dollar.

It has been found that AAPC can play a role in purchasing when items must be paid for in advance, otherwise it is much quicker to order direct.

23. REMARKS

With the advent of the CILSS Sahel Development Program it is evident that a total commitment has been made by the CILSS countries to wage a merciless war on pests of food crops. The Regional Food Crop Protection Project Phase II has been an integral part of the effort to wage this fight. The impact of this effort on the part of the AID effort, PASA support and commitment of the National Services will become more obvious over the next two year period remaining in Phase II.