

PDAAP-893

IAN. 362.45

**THE CROPPING SYSTEMS AND EXTENSION  
TRAINING PROJECT IN SWAZILAND  
NO. 645-0212**

**Memorandum Audit Report No. 3-645-85-2  
October 12, 1984**

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**FROM:** Mervin F. Boyer, Jr., RIG/A/N

**SUBJECT:** Memorandum Audit Report No. 3-645-85-2 on The Cropping Systems and Extension Training Project in Swaziland, No. 645-0212

**TO:** Mr. Robert C. Huesmann, Director, USAID/Swaziland

### INTRODUCTION

On August 28, 1981 the Agency for International Development (A.I.D.) and the Government of Swaziland (GOS) entered into a grant agreement to implement the Cropping Systems Research and Extension Training Project. A.I.D.'s total contribution to the project is \$12.9 million and the GOS is to provide the equivalent of \$4.4 million, including costs borne on an "in-kind" basis. The Project Assistance Completion Date (PACD) is September 30, 1987. As of April 30, 1984, USAID had obligated \$9 million of which \$1.2 million had been expended. The project consists of three major components: cropping systems research, agricultural information, and extension training.

The cropping systems research component is designed to assist the Ministry of Agriculture and Cooperatives (MOAC) to redirect its research efforts toward the Swazi Nation Land farmer. On-farm research tests were to be made by teams of research assistants, extension staff and farmers following a review of past research in Swaziland. A U.S. technical assistance team was contracted to design a research program in conjunction with the MOAC's research staff.

The agricultural information component is to assist the MOAC to substantially expand and improve the capacity of the Agricultural Information Section. Before research recommendations reach the farmer, they must be written and presented in an understandable manner. The project is to provide technical assistance to both design and institute a process for the flow of information from research to the extension service.

Under the extension training component a technical advisor was to assist the GOS to design and to implement a comprehensive in-service training program. The program is to include formal classes at the University College of Swaziland's (UCS) agricultural facilities as well as informal sessions at Farmers' Training Centers and the central research station and substations. An important element of this component is to introduce new extension methodologies and teaching aids to students in the Ministry of Agriculture and Cooperatives' certificate training course.

### OBJECTIVES, SCOPE AND METHODOLOGY

The purpose of our review was to determine whether: (a) the project was progressing towards meeting its goals and objectives; (b) the Government of Swaziland (GOS) was using project resources effectively and efficiently; (c) the technical assistance contractor performance was in accordance with the terms of their contract; and (d) applicable laws and regulations were being complied with. Except as noted in this report we found no exceptions in our review of these areas.

Our review covered the period from August 28, 1981 through April 30, 1984. Field work was performed during May 1984 at the USAID and GOS offices in Mbabane, Swaziland. Site visits were made to the Malkerns Research Station, located about 25 miles from Mbabane, to inspect contractor activities. We also held discussions with appropriate USAID, Ministry of Agriculture, and contractor officials.

Our review was made in accordance with the Comptroller General's standards for audit of governmental programs, and included such tests of the project's records and procedures as we considered necessary in the circumstances.

### FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Research activities are making satisfactory progress. The contract research team has analyzed results from the 1982-83 cropping season, baseline data has been collected and a preliminary analysis made. The data obtained from the team's efforts to date have been published. Efforts are presently underway to update the report based on the information evaluated and developed from the second cropping season.

The project provides for 705 study months of formal academic training in the United States. As of April 30, 1984, 612 study months are either on-going or planned.

The project is, however, not without some shortcomings. The construction phase of the project has slipped behind schedule. This and other areas where GOS support has not always been as planned are detailed in the following sections of this report.

#### GOS SUPPORT WAS NOT ALWAYS PROVIDED AS ORIGINALLY PLANNED

The cropping systems project has not always received GOS support at the levels or as originally planned. This has resulted in some project activities not being implemented on schedule. USAID/Swaziland has, nevertheless, continued to provide support at the planned levels.

These GOS shortfalls delayed (a) funding of the construction even though all or nearly all of the costs were to be subsequently paid by AID, (b) selection and assignment of counterparts, and (c) provision of fuel for project vehicles.

Project Construction - The building addition at the Ministry of Agriculture and Cooperatives (MOAC) to house the Agricultural Information Section and to expand the facilities for extension training was to have been completed by November 1982. As of May 1984, 18 months later, construction on this new addition had not been started. The estimated cost of this construction is \$220,000.

Fourteen two-bedroom residences were to be constructed to house Ministry of Agriculture field research officers and U.S. Peace Corps personnel. Seven of these residences were scheduled for completion in June 1983. As of May 1984, only two of the fourteen had been completed and seven were either under construction or out for bid. Construction plans had been completed on the remaining five houses, but the MOAC was awaiting funding from the GOS. The estimated cost of the 14 houses is \$240,000.

One of the principle causes of the construction delay was the GOS failure to provide for the construction costs in their budget. The GOS believed that unless the funds were included in the budget, new construction could not be started. Now the GOS has decided that if the funds are to be reimbursed by donors the funds do not have to be provided in the budget. This should eliminate future funding problems. Because of the delays in housing construction only three of the five research teams were actually transferred by May 1984. This represents a delay of about one year.

The contractor believes that the delay in assigning the remaining two teams will be balanced by the unplanned opportunity to enhance the level of training prior to their assignment to the field.

Further, there has also been a lack of understanding on the part of GOS concerning the mechanism employed when claiming reimbursement from AID under the Fixed Amount Reimbursable<sup>1/</sup> (FAR) procedure under which the construction is being funded. This has also delayed construction because the GOS did not request reimbursement in a timely manner.

Despite these delays, USAID and the GOS were taking steps to accelerate the construction program. For example, a meeting was held on May 10, 1984, attended by members of various GOS Ministries and USAID to discuss in detail the status of each construction activity. During the meeting, actions needed to be taken were assigned to each responsible party. USAID felt that if such actions were properly carried out, all construction activities under the project could be completed by December 31, 1984.

In response to our draft report, USAID indicated that subsequent to the audit, work on the extension to the MOAC building was started in August and will be completed in December 1984. They also reported that all but one of the houses will be completed by December 1984. The remaining house will be completed in March, 1985.

Counterparts - We found that of the eight Pennsylvania State University (PSU) long-term advisors, five had counterparts for the two years the contract team has been on board. The other three advisors were provided counterparts on a limited basis only.

As an example, the irrigation specialist counterpart was in training when the advisor arrived in September 1982. He assumed his counterpart role in January 1984. The extension training specialist arrived in September 1982, and there was a five month delay, until February 1983, in the assignment of his counterpart. The agricultural economist arrived in May 1982, and his counterpart was not assigned until September 1983. This was due to the initial lack of a position for an economist at the Malkerns station followed by a temporary GOS freeze on recruitment.

<sup>1/</sup> Method by which the Grantee will carry out the construction utilizing its own funds and will be reimbursed by AID at a predetermined fixed price, based on reasonable engineering cost estimates that have been reviewed and approved by AID.

There was a period of 37 months out of a possible 72 months (about 51 percent) that the three PSU advisors did not have a counterpart working with them. As a result, 37 man months of the technical assistance was not fully utilized to transfer technology or provide on-the-job training. The cost of the advisor's salary alone for this time was about \$125,000. Furthermore, although the agreement does not specifically state that advisors are to be assigned counterparts during the entire tenure of the technical advisor, we believe that it is prudent management to do so.

Regarding the assignment of counterpart personnel, Article 5, Section 5.4 of the grant agreement states:

"The grantee covenants to assign counterparts to each of the technical advisors."

In replying to our draft report, USAID stated that it was never intended to have a counterpart assigned to each advisor on a full time basis. They referred to Appendix J of the project paper which states as part of the technical advisor's duties, the advisor will:

"Assist in selection and training of a Swazi colleague and provide continuity of effort while Swazi is enrolled in advanced training."

Unless counterparts are assigned while the technical advisors are on board much of the effectiveness of the advisor is lost. This results in the advisor finding himself in an operational rather than an advisory position, which is an expensive way to provide continuity of effort. In our judgement, it makes more sense to provide a chief of party only during the training phase to help select participants and provide continuity rather than bring in a full technical assistance team at the beginning of the project and have them work essentially by themselves with no one to train.

We believe that USAID needs to determine, in conjunction with the GOS and the PSU team, those areas where counterparts are needed to effect transfer of knowledge. If this is not done, the technical assistance advisors are not being used as effectively as they should be.

Fuel For Vehicles - During recent months the PSU contract team has experienced difficulties in obtaining fuel to operate the 12 trucks and 8 motorcycles provided by AID funds. Contractor personnel told us that unless they are provided fuel for the vehicles they will be unable to travel to various field locations to perform their work.

PSU advisors told us that the research station is allotted a certain quota of fuel. When this quota is consumed they must wait until a new quota is provided. In May 1984, the research station already had used its quota of fuel for the period ending June 1984.

Under the grant agreement, the GOS has the obligation to provide fuel for project vehicles. Annex 1. Article II.B.1 of the agreement states:

"The Grantee will provide for all fuel...as required."

The contractor and USAID officials have brought this problem to the attention of Ministry of Agriculture (MOA) officials. However, a solution to this problem was still pending at the time of the audit.

USAID stated in their response to the draft report that fuel was a particularly pressing problem. But the problem, which mainly had to do with the beginning of a new fiscal year, has now been resolved. We have, therefore, deleted the recommendation included in our draft report.

#### Conclusions and Recommendation

The project has encountered construction delays. Indications are that the problems are now resolved and the construction will be completed by March 1985.

The GOS needs to provide counterparts so each AID financed technician has a GOS person to work with and train. Unless such counterparts are provided the project stands to lose some of the benefits derived from the technical assistance advisors. The advisors should be instructing and showing the counterparts how to do the work. They should not be doing it themselves.

Lack of fuel was impeding the technical advisor's ability to travel and conduct research and other project activities. This problem now appears to be resolved.

RECOMMENDATION NO. 1

USAID/Swaziland, in conjunction with the GOS, schedule counterparts so that the technicians have someone to train and work with during their assignment in Swaziland.

PSU PROPERTY RECORDS ARE INCOMPLETE

We found that PSU property records were incomplete. The majority of the records failed to indicate the date received, inventory number, value, and location of the equipment. In addition, we found that no physical inventory had been taken of these commodities. Under the contract, PSU has the responsibility to perform these tasks. Staff restraints was cited as the reason they were unable to complete these functions.

As of April 30, 1984, USAID/Swaziland had obligated about \$1 million for commodities of which approximately \$109,000 had been expended. Some of these items have been in country since August 1982.

Without proper property records and physical inventories, accountability is weak and equipment losses may go undetected. Also, accountability is essential because at some future date the equipment, currently in the custody of PSU, will have to be accounted for as part of the contractor's closeout procedure, and turned over to the GOS.

Conclusion

Equipment records need to be completed and a physical inventory taken. USAID/Swaziland stated in response to the draft report that PSU recently hired a person to update the property records. Once the records are in order, a physical inventory will be taken and compared to the book quantities. The plan also includes assigning a property control number to each piece of equipment. In view of the action being taken, the recommendation included in our draft report has been deleted.

APPENDIX A

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