

PD-ABE-834
: 49302

Project Grant Agreement Amendment Number 8
AID Project Number: 645-0212

AMENDMENT NUMBER 8

to the

PROJECT GRANT AGREEMENT

between

THE KINGDOM OF SWAZILAND

and the

UNITED STATES OF AMERICA

for the

CROPPING SYSTEMS RESEARCH AND EXTENSION

TRAINING PROJECT

Date: 30 SEP 1988 1988

PROJECT GRANT AGREEMENT AMENDMENT

1. THIS AMENDMENT Number 8 to the Grant Agreement for the Cropping Systems Research and Extension Training Project, Number 645-0212, adds an increment of funding in the amount of One Hundred and Ninety Two Thousand United States (U.S.) Dollars (\$192,000), extends the Project Assistance Completion Date, substitutes an Amended Amplified Project Description, and makes necessary related changes as more fully set forth below.

2. The Project Grant Agreement dated August 28, 1981, which was amended on May 24, 1982, August 31, 1982, June 29, 1983, August 17, 1983, March 26, 1984, December 11, 1984, and on September 23, 1987, is hereby amended as follows:

A. ARTICLE 3, SECTION 3.1, The Grant is deleted in its entirety and is replaced with the following new Section 3.1:

"SECTION 3.1 The Grant To assist the Grantee to meet the costs of carrying out the Project, A.I.D., pursuant to the Foreign Assistance Act of 1961, as amended, agrees to grant the Grantee under the terms of this Agreement not to exceed Eleven Million, Five Hundred, Seventy Four Thousand United States (U.S.) Dollars (\$11,574,000) ("The Grant"). The Grant may be used to finance foreign exchange costs, as defined in Section 6.1, and local currency costs, as defined in Section 6.2, of goods and services required for the Project."

SECTION 3.3 (a) Project Assistance Completion Date is deleted in its entirety and is replaced with the following Section 3.3 (a):

"(a) The "Project Assistance Completion Date" (PACD), which is August 20, 1991 or such other date as the Parties may agree to in writing, is the date by which the Parties estimate that all services financed under the Grant will have been performed and all goods financed under the Grant will have been furnished for the Project as contemplated in this Agreement."

B. ARTICLE 4, SECTION 4.1 (b) First Disbursement is deleted in its entirety and is replaced with the following new Section 4.1 (b):

"(b) Prior to disbursement of Project funds for commodities, the Cooperating Country will provide a detailed plan identifying items to be funded and assuring that all funds reserved in the project budget for commodities are committed by August 31, 1990."

C. ARTICLE 5, Special Covenants. The following new covenants are added as Section 5.8 and Section 5.9 of this Article.

"SECTION 5.8 The Workplan The Cooperating country will develop, jointly with the technical assistance team financed under the project during the 1988-1991 period, a detailed workplan, including use of short-term technical assistance, to strengthen in measurable ways the linkages between agricultural research, information and extension, with particular emphasis on strengthening the agricultural extension service, which workplan will be submitted to USAID for approval within 90 days of arrival of said technical assistance team."

"SECTION 5.9. Transportation The Cooperating country will study, jointly with the technical assistance team financed under the project, the transportation problems confronting the Agricultural Extension Service and will develop and examine a variety of options to resolve such problems during the life of the project."

D. The Annex 1 Amplified Project Description is deleted in its entirety and the attached Annex 1 ("AMPLIFIED PROJECT DESCRIPTION") is substituted in lieu thereof.

3. All other terms and conditions of the Grant Agreement, as amended, remain in full force and effect.

The Governments of the Kingdom of Swaziland and the United States of America, each acting through its respective duly authorized representative, have caused this Amendment to be signed in their names and delivered as of the date first above written.

THE GOVERNMENT OF THE
KINGDOM OF SWAZILAND



By: Sindi Mabuza
Title: for A/Principal Secretary,
Department of Economic
Planning and Statistics

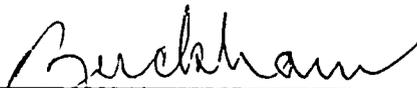
Date: 30.9.88

THE UNITED STATES
OF AMERICA



By: Harry R. Johnson
Title: Acting Director,
USAID/Swaziland

Date: 9/30/88



By: Frank Buckham
Title: Principal Secretary,
Ministry of Agriculture
and Cooperatives

Date: 27/9/88

ILLUSTRATIVE BUDGET (DOLS)
CROPPING SYSTEMS RESEARCH AND EXTENSION TRAINING

645-0212
(000s)

Input	Authorized		Obligated thru 06/30/88		Amendment No.8		TOTAL	
	AID FX	GRANTEE LC	AID FX	GRANTEE LC	AID FX	GRANTEE LC	FX	LC
Technical Assistance:								
Research	6138	3440	4825	1018	21	7	4846	1025
Exten. Trg	1001	220	1051	316	59	25	1110	341
Agric. Info.	1001	585	1027	206	17	6	1044	212
Land Tenure	-	-	526	248	-	-	526	248
Training	1781	Incl. above	1400	308	51	11	1451	319
Construction	640	Incl. above	640	1000	-	-	640	1000
Equipment/Commodities and vehicles	1030	Incl. above	1137	252	17	6	1154	258
Evaluation	48	-	82	-	-	-	82	-
Other Direct Costs	75	-	694	214	13	5	707	219
Contingency	1186	109	-	-	14	4	14	4
TOTAL	12900	4354	11382	3562	192	64	11574	3626

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ANNEX 1

REVISED AMPLIFIED PROJECT DESCRIPTION

As a result of the second external evaluation (received 8/87) and a USAID audit (issued 3/14/88), USAID and the MOAC have determined the need to extend the Project Assistance Completion Date (PACD) by three years, from September 30, 1988 to August 20, 1991 to ensure achievement of the End-of-Project Status (EOPS) indicated in the Project Paper Logical Framework.

USAID consultations with senior MOAC personnel confirmed that additional time and resources would be required to 1) consolidate achievements realized to date by ensuring that Swazis are prepared to assume full leadership for the expanded research and extension programs which have been initiated with long-term technical assistance and 2) enhance the effectiveness of extension by firmly establishing regularly scheduled training programs, expanding the capacity of the Information Section to prepare and disseminate new technology and strengthening linkages between research, extension personnel and farmers.

Except as specifically provided herein, and within the limits of the definition of the Project set forth in Section 2.1., elements of this Amplified Project Description may be changed by written agreement of the authorized representative of the Parties named in Section 8.2 without formal amendment of this Agreement.

Article I - General Project Description

The Project consists of three major components and a fourth which was added after the first mid-term evaluation:

1. Cropping Systems Research

The project will assist the Ministry of Agriculture and Cooperatives (MOAC) in focussing its research efforts toward the Swazi Nation Land (SNL) farmer. On-farm research trials will be conducted by teams of Research officers and Subject Matter Specialists following a review of past research in Swaziland, a socio-economic base-line survey, and a technical survey of present cropping patterns and practices. Participation of farmers is vital. The information gathering process will be a continuous one that will feed back to technical Research Officers at the various research stations. In addition some applied research will be conducted on-station in response to findings of the technical and baseline surveys. Research Officers, with help from their advisors, will design the research program and process under the direction of the Chief Research Officer. Degree and non-formal training will be provided and facilities will be constructed to help institutionalize a cropping systems research and extension program. Also, equipment and commodities will be provided to support these efforts.

2. Agricultural Information

Before research recommendations reach the farmer, they must be written and presented in an understandable manner. In order to be effective, extension personnel must be able to understand the new research recommendations and apply them to the various conditions faced by the farmers with whom they work. Also, extension staff must have adequate backup support in the form of extension aids if they are to effectively deliver the message to the farmer. This project will assist the MOAC to expand and improve the capacity of the Agricultural Information Section to accomplish these critically important tasks. Training will be provided to bring the staff to the desired size and level of competence. Also, equipment and facilities will be provided to produce the research and extension programs. Work in print media will continue, but project will place increased emphasis on strengthening other media. This project will provide technical assistance to design and institute a process to facilitate the flow of information from research through the extension service on to farmers and the flow of information on the needs of farmers through extension to Research. The ultimate objective being to establish more effective agricultural and extension programs and to enhance extension research linkages.

Short-term and academic training will be provided in such areas as agricultural information systems development, equipment maintenance, and audio-visual techniques. An advisor will work with the staff of the Section to test the acceptability of various methods of disseminating research recommendations to farmers and develop an extension support program and extension aids which are based on this assessment. An important function of this component will be an active collaboration with the cropping systems research team and the extension services, and Policy Makers in the Ministry.

3. Extension Training

Under the project, technical support will be provided to assist the Grantee in the design and implementation of a comprehensive in-service training program. This will include short courses presented in collaboration with faculty of agriculture at the University of Swaziland (UNISWA) as well as a senior research and extension personnel. When possible, emphasis will be placed on field vs. classroom training. A substantial training component is provided to enhance the capacity to plan/manage a continuing In-service Training Program. With the MOAC's adoption of the Training and Visit System of Extension, increased emphasis is placed on technical vs. methodological training. Training for Swazis in the Crop Production Section, which provides the technical support required by extension workers, is also included. When the project was originally initiated, personnel were drawn from this section and trained to serve as Research Officers. Now further training is required to strengthen the Crops Section and provide a

reservoir of trained personnel to service a second line of Research Officers. A limited amount of commodities will be provided to the Faculty of Agriculture at UNISWA for the training of future extension staff.

Recognizing that the lack of transport for extension personnel reduces the impact of research findings and impairs the effectiveness of the GOS extension programs, Penn State, the MOAC and USAID will jointly review this issue, identify alternatives and propose solutions for action. Limited project funds may be made available for resolution of this constraint if it is clear that these will generate a greater contribution from the Government of Swaziland to the resolution of this problem.

4. Policy Analysis

Under the project technical assistance will be provided to assist the Ministry in taking the findings from baseline surveys, research findings, evaluations, etc. generated by the project and using them to adjust policies and programs to bring them into conformity with the Ministry of Agriculture and Cooperative's strategy.

Article II - Contribution of the Parties

In order to achieve the purpose and objectives of the project, the Parties will make inputs to the project as described below.

CROPPING SYSTEMS RESEARCH AND EXTENSION TRAINING REVISED SUMMARY BUDGET (\$000)

	<u>New LOP Budget</u> <u>6/81 - 8/91</u>	
	<u>AID</u>	<u>GOS</u>
Technical Assistance	10,075	
Training	1,258	
Construction	533	
Equipment/Commodities	594	332
Vehicles	80	
Evaluation	134	
Other	18	
Contingency	208	0
Salaries/Emoluments		2,336
Vehicle Support		346
Facilities and Furnishings		1,070
Participants' Air Fare		211
TOTAL	<u>12,900</u>	<u>4,295</u>

A. AID

1. Technical Assistance (\$10,075,000)

Approximately 71 person years of long-term technical assistance, approximately 116 person months of consultancies will be provided in research, extension in-service training, and agricultural information and the necessary contract administration support.

2. Training (\$1,258,000)

Approximately 984 study months of formal academic and short-term training will be provided to strengthen and prepare personnel to fill positions as Research Officers, National Subject Matter Specialists, Senior Extension Officers, the Extension In-Service Training Coordinator, and Agricultural Information.

3. Commodities (\$674,000)

Vehicles, equipment, and production materials will be procured for the Research Division (MOAC), Extension In-Service Training Section (MOAC), Agricultural Information Section (MOAC), and UNISWA Faculty of Agriculture.

4. Construction (\$533,000)

Facilities to be constructed under the project include a building to house the Agricultural Information Section, a library/conference room for the Research Division, an extension to the Research Division's soils laboratory, housing and storage sheds for the research assistants, and housing, if required, for one U.S. technician.

5. Evaluations (\$134,000)

Two external, mid-term evaluations and one final external evaluation are included.

6. Other (\$18,000)

Workshops.

7. Contingency (\$208,000)

Local costs for the base-line survey; and a contingency fund are also included in the project.

B. GRANTEE

In addition to its general obligation under Section 3.2 of this Agreement to provide funds and resources needed for the project, the Grantee will make the following inputs to the project:

1. Vehicle Maintenance and Operation (\$346,000)

The Grantee will provide for all fuel and maintenance of project vehicles and will replace vehicles, as required.

2. Salaries (\$2,336,000)

Salaries for counterparts to U.S. advisors plus other professional and support staff will be financed by the Grantee.

3. Research Facilities, Office Space, Housing and Furnishings:
(\$1,070,000)

Except for the construction of facilities to be funded by AID, the Grantee will provide the necessary research facilities and office space required to implement the project. The Grantee will also provide housing for U.S. research advisors and furnishings for all houses to be used by project personnel, including field research teams.

4. Travel Costs for Participants (\$211,000)

The Grantee will fund round trip air transportation for all participants trained under the project.

5. Commodities and Supplies (\$332,000)

Research commodities, training supplies, teaching aids, and production materials will be provided by the Grantee to implement the project.

7. Construction of a Training Facility at Malkerns Research Station (MRS) and Staff Housing for National Subject Matter Specialists at MRS for those assigned to the Crop Production Section

Though this construction was determined not to be critical to the success of the project and it is beyond the 25 percent contribution authorized by the GOS, the facilities would clearly strengthen and complement the objective of CSRET.

C. OTHER: PEACE CORPS

The U.S. Peace Corps will provide the services of volunteers to assist with the on-farm research program and the expanded focus of the Information Section.

Article III - Implementation

A. IMPLEMENTATION RESPONSIBILITIES

A revised Implementation Schedule is attached to this Annex.

1. Grantee

a. Directorate of Research and Planning: The Grantee will provide five Agricultural Specialists to Malkerns Research Station to serve as counterparts to the AID-funded technical assistance team. In addition, the Grantee will establish five positions in 1982 and five in 1983 for Research Officers. The first five positions will be filled by April 1982 either by recruiting new diploma graduates or transferring experienced Research Recorders who are diploma holders into those positions. The remaining five Research Officers positions will be filled by April 1983.

b. Extension Division:

The Grantee will also establish an Extension In-Service Training Section in the Directorate of Agriculture in the Ministry of Agriculture and Cooperatives. The existing post for the Extension In-Service Training Coordinator will be transferred from the Agricultural Information Section to the new section. A position will also be established for one secretary/typist and both positions will be filled in FY 82/83.

The Grantee will establish a post for an Assistant Agricultural Information Officer who will be sent for degree training. In addition the Grantee will fill one existing Farm Radio Broadcaster position, and two of the existing three projectionist positions (one is already filled). A fourth projectionist position will be established and filled in 1983.

c. Other: The Grantee will be responsible for the timely selection of participants with adequate academic qualifications for training.

In conjunction with commodity support from AID, the Grantee will be responsible for providing adequate recurrent budget support to implement and carry out the programs in agricultural research and agricultural extension. The Grantee will also be responsible for providing facilities for research and extension in-service training.

The Public Works Department of the Ministry of Works and Communications will be responsible for coordinating all project construction activities under the Fixed Amount Reimbursement (FAR) method. The Public Works Department will prepare final plans and specifications, tender documents, and will select and supervise contractors. Plans, contracts and construction will be inspected and approved by AID engineers; these approvals will be formalized in Project Implementation Letters submitted to the Grantee.

2. AID

USAID/Swaziland (USAID/S) will be responsible for project monitoring, and the USAID/S project manager will serve as the primary contact point for the contractor's representative and

will be responsible for obtaining decisions on contract and project matters. USAID/S will prepare necessary PIO/Ts and Project Implementation Letters and will coordinate external evaluations. In response to the need to evaluate project impact, the 1988/89 workplan will identify quantifiable benchmarks against which the success of the project will be measured. This may include measures of land under production for specific priority crops, rate of adoption of recommended technologies or production practices, etc. USAID/S will issue Source and Origin Waivers to permit Code 935 procurement under Mission Director Authority, or request such waivers from AID/Washington if required.

USAID/S will disburse funds for local costs on a reimbursable basis following procedures to be defined in the Grant Agreement and Project Implementation Letters. Funds for construction will be disbursed on a Fixed Amount Reimbursement (FAR) basis with disbursement levels and procedures for advances to be established with assistance from USAID engineers and set forth in Project Implementation Letters.

3. Contractors

The design of this project was carried out through the collaborative mode with assistance provided by a Title XII Institution; it is planned that the project will be implemented by the same institution, Pennsylvania State University (Penn State). AID/W, in coordination with USAID/S, will contract with Penn State to provide the technical assistance proposed for the project. Penn State will be responsible for the timely provision of the required technical assistance personnel as well as all administrative arrangements related to recruitment, transportation, shipment of household effects, etc.

The technical assistance team will be responsible for implementing project activities. In addition to in-country and on-the-job training responsibilities, the technical assistance team will also assist the Grantee in the selection and evaluation of participant trainees, and will be primarily responsible for securing placement of participants sent for U.S. and third country training. Since participant training is grant funded under the contract, the technical assistance team will prepare all PIO/Ps, with USAID/S guidance and assistance as needed, and will furnish copies of PIO/Ps to USAID/S.

Project commodities will be procured under the contract; therefore, Penn State's procurement office and the technical assistance team will be responsible for all commodity procurement, following AID procurement regulations. However, before equipment and/or commodities are procured, the technical assistance team must obtain USAID/S approval of types and prices of non-expendable items. In the final three years, all further commodities must be specified in the three year workplan.

The technical assistance team will be required to submit annual work plans to be approved by the Ministry of Agriculture and Cooperatives and USAID. In the final three years, there will be a single workplan developed which will be reviewed and up-dated in subsequent years. Requisite reports consist of quarterly progress/status reports, which will identify new technological packages ready for extension, and a final, end of project report. Team members will contribute material to the Malkerns Research Station Annual Report and assist with its preparation rather than prepare separate reports.

B. PROCUREMENT PLAN

1. Authorized Source of Procurement

The authorized source of procurement under the project will be the Geographic Code 000 (U.S. only) and Swaziland, except for those items covered by waivers as set out in Article 6 of the Agreement, which may be procured from Geographic Code 935 countries.

2. Responsibility

It is planned that all procurement under the project will be carried out by Penn State, with all AID rules and regulations concerning procurement being applicable. Exceptions to the foregoing are: (1) the light duty vehicles will be purchased by the Grantee's Central Transport Authority in order for transportation to be available to the implementation team upon its arrival in Swaziland and (2) since all construction will be under the F&R method of financing, the contractor hired by the Grantee will procure all construction materials. The contract with Penn State will clearly specify its procurement responsibilities, including a requirement that all transactions must be reviewed and approved by USAID/S prior to placement of orders.

Implementation Schedule

The following revised schedule presents the major implementation actions to take place during the project along with the responsible agent. Elements of the schedule may be changed by written agreement between A.I.D. and the Grantee without formal amendment of this Agreement.

<u>Date</u>	<u>Action</u>	<u>Responsibility</u>
Aug 1981	Grant Agreement signed	USAID/GOS*
Sept 1981	Preliminary planning for all facilities to be constructed, including designs for Agricultural Information Building and Malkerns facilities.	GOS
Sept 1981	Tender document issued for construction of TA house	USAID/GOS
Oct 1981	Contract negotiated with contracting university	A.I.D./Washington/ Contractor
Oct 1981	Two station wagons and two pickup trucks ordered for technical assistance team	GOS/USAID
Oct 1981	Tenders for Agricultural Information Building and Malkerns facilities	GOS/USAID
Dec 1981	Agricultural Information Building, Malkerns Soils Laboratory, Library, and TA House contract awards	GOS/USAID
Dec 1981	Three pickup trucks ordered for technical assistance team	GOS/USAID
Jan 1982	Chief of Party, Rural Sociologist, Extension Training Specialist and Economist arrive in Swaziland	Contractor
Feb 82	Three candidates selected for U.S. training, applications submitted to universities	GOS/USAID/ Contractor
Feb 1982	One pickup truck ordered for technical assistance team	GOS/USAID
Mar 1982	First contingent of equipment and supplies ordered	Contractor
Mar/Apr 1982	Swazi counterparts identified (and posts established, if necessary for each U.S. technician on project and transferred to specific positions	GOS

* GOS refers to Grantee

Mar 1982	Three candidates selected to enroll in refresher course in University College of Swaziland (UCS)	GOS/USAID/ Contractor
Apr 1982	All remaining members of technical assistance team arrive Swaziland (except Agricultural Information Specialist)	Contractor
Apr 1982	Rural Sociologist and Agricultural Economist provide leadership in designing and conducting base-line survey	Contractor/GOS
Apr/June 82	Research staff observe harvest and beginning for 1982/83 cropping season	Contractor/GOS
May 1982	Three Swazis leave for M.Sc. program in US	GOS/Contractor
May 1982	Four Swazis leave for B.Sc. program	GOS/Contractor
June 1982	TA house and Malkerns facilities completed	GOS/USAID
June 1982	Agricultural Information Specialist arrives in Swaziland.	Contractor
June 1982	Tender for first seven field research houses and five storage sheds	GOS/USAID
June 1982	Agricultural Information technician selected, departs for 3 months training	GOS/Contractor
Aug 1982	Contracts awarded for seven field houses and five storage sheds	GOS/USAID
Aug 1982	Second contingent of equipment ordered	Contractor
Aug 1982	Four vans for AIS ordered	GOS/USAID
Sept 1982	Start of program for first crop season under project	Contractor
Sept 1982	First group of five Research Assistants begin training at research station	GOS/Contractor
Nov 1982	Agricultural Information Building completed	GOS/USAID
Dec 1982	Agricultural Information technician returns from training	GOS/USAID
Feb 1983	Four candidates selected for training in US; applications submitted to universities	GOS/Contractor
Mar 1983	Four candidates for training enrolled in UCS for refresher courses	GOS/Contractor
May/June 1983	Data from base-line survey collected and preliminary analysis completed	Contractor

Apr 1983	Equipment and motorcycles for first field team ordered	Contractor
Apr/Jul 83	Research team analyzes results from first crop season	Contractor
May 1983	Four Swazis leave for training in US (2 M.Sc., 2 M.Ed.)	GOS/Contractor
May 1983	Start of program from first irrigated crop season	Contractor
May 1983	Four Swazis leave for B.Sc. training	GOS/Contractor
June 1983	Completion of first seven field houses	GOS/USAID
June 1983	Tender for remaining seven field houses	GOS/USAID
June 1983	First five field research teams transferred to field sites	GOS/Contractor
July 1983	Internal Evaluation (PES)	USAID
Aug 1983	Second group of five Research Assistants begin training at research station	GOS/Contractor
Aug 1983	Contract awards for remaining seven field houses and five storage sheds	GOS/USAID
Aug/Sept 83	Analysis of irrigated crop season results	Contractor
Sept 1983	Results of research findings public in annual report	Contractor/GOS
Sept 1983	Start of new crop season program	Contractor
Feb 1984	Four candidates selected for training in US; applicants sent to universities	GOS/Contractor
March 1984	Four candidates for advanced training enroll in refresher courses at UCS	GOS/USAID
Apr 1984	Equipment and motorcycles for second field team ordered	Contractor
May 1984	Three students complete M.Sc. training, return to Swaziland and start work with TA counterparts	GOS/Contractor
May 1984	Four M.Sc. trainees depart for US	GOS/Contractor
Apr/Jul 1984	Data and preliminary analysis of first annual update of socio-economic information completed	Contractor/GOS

Apr/Jul 1984	Team analyzes results of previous crop season	Contractor/GOS
May 1984	Start of irrigated crop season program	Contractor
June 1984	Remaining seven field houses and five storage sheds completed	GOS/USAID
June 1984	Second five field research teams transferred to field sites	GOS/Contractor
Aug/Sept 84	Analysis of irrigated crop season results	Contractor
Sept 1984	Three Swazis assume responsibility of position with TA as advisors	GOS/Contractor
Sept 1984	Research findings published in annual report	GOS/Contractor
Sept 1984	Start of new crop season program	Contractor
May 1985	Four students complete M.Sc. training; return to Swaziland and start work with TA counterparts	GOS/Contractor
Apr/Jul 1985	Team analyzes results of previous crop season	Contractor
Apr/Jul 1985	Data for second annual update of socio-economic information; in conjunction with previous information the research program's overall direction is re-examined	Contractor/GOS
May 1985	Start of irrigated crop season program	Contractor
May/Aug 1985	On-farm demonstration program of research findings under irrigated conditions	GOS/Contractor
July 1985	External Evaluation	REDSO/EA/ Consultants
Aug/Sep 85	Analysis of irrigated crop season results	Contractor
Sept 1985	Four Swazis assume responsibility of positions with TA as advisors	Contractor
Sept 1985	Research findings published in annual report	GOS/Contractor
Sept 1985	Start of new crop season program	Contractor
Sept 1985 Apr 1986	On-farm demonstrations of research findings	GOS/Contractor
Jan 1986	Start decision process for determining whether a phase II will be implemented	USAID/GOS/ Contractor

May 1986	Four students complete M.Sc. training in US and return to start work with counterparts	GOS/Contractor
May 1986	Four B.Sc. graduates return to work in Crop Production Section	GOS/Contractor
Apr/Jul 1986	Team analyzes results of previous crop season	Contractor/GOS
Apr/Jul 1986	Socio-economic team gathers new data, analyzes 4 years of data, and makes comparisons	Contractor/GOS
May 1986	Start of irrigated crop season program	Contractor/GOS
May/Aug 1986	On-farm demonstrations of irrigated research findings	GOS/Contractor
Jul/Aug 1986	Follow-on PP Design, if required	USAID/Contractor/ GOS
Aug/Sept 86	Analyses of irrigation crop season results	Contractor/GOS
Sept 1986	Four Swazis assume responsibility of position with TA as advisors	GOS/Contractor
Sept 1986	Research findings published in annual report	GOS/Contractor
Sept 1986	Start of crop season program	Contractor/GOS
Sept 1986 Apr 1987	On-farm demonstrations of research findings	GOS/Contractor
Oct 1986	Phase II PP Approval	A.I.D./W
Jan 1987	Contract signed for implementation of Phase II	A.I.D./W/ Contractor
Apr 1987	Summary report of research findings during first five years	Contractor/GOS
Apr/Jul 1987	Research staff analyze results of previous crop season	GOS/Contractor
Apr 1987	Phase II Implementation begins	USAID/GOS/ Contractor
May 1987	Four B.Sc. graduates return to work in Crop Production Section	GOS/Contractor

May 1987	External Evaluation (2nd Midterm)	REDSO/EA Consultants
May 1987	Start of irrigated crop season program	Contractor/GOS
Apr/July	Team Analyzes results of previous crop season	Contractor/GOS
May/Aug 1987	On-Farm demonstration of irrigated research findings	Contractor/GOS
Aug/Sept 1987	Analysis of irrigation crop season results	Contractor/GOS
Sept 1987	Research findings published in Annual Report	Contractor/GOS
Sept 1987	Start of crop season program	Contractor/GOS
Sept 1987	On-farm demonstrations of research findings	Contractor/GOS
Sept 1987	Swazi counterpart to production economist advisor departs for training in the U.S.	Contractor/GOS
Feb/Mar 88	Internal evaluation and negotiation on extension of PACD	USAID/Contractor/ GOS
Apr/Jul 88	Research staff analyze results of	Contractor/GOS
May/Aug 88	On-farm demonstrations of irrigated research findings	Contractor/GOS
June 1988	Request for extension of project PACD	GOS
Aug 1988	PACD Extension	USAID/GOS
Aug 1988	Three Swazis leave for training in US; 2 B.Sc., 1 M.Sc.	GOS/Contractor
Sept 1988	PSU Contract Amendment	USAID/GOS/ Contractor
Sept 1988	Extension Planning Advisor arrives in Swaziland	Contractor
Sept 1988	Four SEO's start B.Sc. sandwich program at UNISWA	Contractor/GOS
Oct 1988	Two new Advisors arrive - Extension Training Advisor - Farming Systems Methodologist	Contractor

Dec 31 88	Approved three year Work Plan	Contractor/GOS USAID
Oct/Dec 88	Study options of Extension Transport Constraints	USAID/Contractor/ GOS
Jan 1989	Two Swazis leave for M.Sc. training in US	GOS/Contractor
Aug 1989	One Swazi leaves for MPA training in US	GOS/Contractor
Aug 1989	Three Swazis leave for M.Sc. training	GOS/Contractor
Dec 1989	One student completes M.Sc. and returns to Swaziland	GOS/Contractor
Dec 1989	Policy Advisor departs	Contractor
Aug 1990	Five Swazis return from LT training	GOS/Contractor
Sept 1990	Two LT Advisors leave (Irr. Adv, Research/Ext. Trng. Adv.)	Contractor
May 1991	Sandwich Program students leave for 2-3 months training in the US, 2 B.Sc. students return	GOS/Contractor
Jul 1991	End of Project Evaluation	USAID/GOS
Jul 1991	Swazis return from training (3 M.Sc., 1 MPA, 4 B.Sc. Sandwich Program)	GOS/Contractor
Jul 1991	Two remaining advisors depart	Contractor
Aug 20 1991	PACD	USAID/GOS