

PD-ABN-136  
91101

## PROJECT ACTIVITY COMPLETION REPORT

August 1996

### I. SUMMARY DATA

<b>Project Title:</b>	Commercial Agricultural Production and Marketing
<b>Project Number:</b>	645-0229
<b>Administrative:</b>	
<b>Implementing Agency:</b>	Swaziland Ministry of Agriculture and Cooperatives (MOAC)
<b>Technical Assistance:</b> (prime contract)	Chemonics International (645-0229-C-00-9019)
<b>Grant:</b>	Swazi Business Growth Trust  (645-0229-G-004-400)
<b>Cooperative Agreement:</b>	Ohio State University (645-0229-A-00-2010)
<b>Final Evaluation:</b>	March, 1996
<b>Financial:</b>	
Date of Authorization	August 21, 1988
Authorized LOP	\$10,833,000
GOS Contribution	\$ 4,292,188
Cumulative Obligation	\$10,832,178
Cumulative Commitment	\$10,751,249
Cumulative Accrued Expenditure	\$10,751,000
Date of Initial Obligation	August 31, 1988
PACD: (Original)	August 31, 1992
(First Extension)	February 28, 1994
(Second Extension)	November 30, 1995
(Third Extension)	May 31, 1996
<b>Planned AID Inputs:</b>	
Technical Assistance	\$9,729,032
Grant to SBT	118,450
Cooperative Agreement with OSU	200,000
Monitoring and Evaluation	692,456
Commodities	79,240
Technical Assistance - Training	13,000
GRAND TOTAL .....	\$10,832,178

## **Recipient Contributions:**

The Swaziland recipient contribution to the project for the period July 1, 1989 to March 31, 1996 was agreed to be the local currency equivalent of U.S. \$3.633 million (25% of the total project). The recipient contribution is made up from two primary sources: the GOS (Grantee) and the farmers/firms in kind contributions (Participants).

### **A. GOS Contribution**

The Government of Swaziland's contribution was:

Personnel	\$660,014
Project Support	37,469
Travel	40,589
Training	52,050
Irrigation Rehabilitation	149,764
Furnishings, Lease & Maintenance	152,181
UNISWA, Greenhouse, Produce Store	455,663
NAMBoard	240,167
Overhead	660,014
Infrastructure	24,740
Sustainability Workshop	3,617
<b>TOTAL</b>	<b>\$2,476,268</b>

The main areas of contribution have been in the time allocated by GOS counterparts, the setting up and maintenance of various irrigation schemes, the UNISWA participation in the linkage program, and the marketing activities of NAMBoard. Other notable GOS contributions have been in the upgrading of packsheds, and the construction and maintenance of bridges and roads in the regions of the packsheds.

### **B. Participant Contribution**

Participant contribution is primarily composed of the financial equivalent of the machinery, buildings, and other infrastructures used and the labor, training time, and production inputs committed by farmers and marketing firms during the life of the CAPM project. The Participant Contribution was:

Production Inputs	\$430,464
Company Facilities	264,481
Farm Labor & Facilities	983,940
Packsheds	102,583
Training	7,572
Farmer Organizations	26,880
<b>TOTAL</b>	<b>\$1,815,920</b>

The actual figure achieved from both the GOS and participant contributions was approximately U.S. \$4.292 million (27% of total). This exceeds the target amount by 18 percent.

**Project Goal:**

To increase the agricultural sector's contribution to the national economy of Swaziland.

**Project Purpose:**

To establish an environment that is stimulating increases in small-scale commercial agricultural production, other agribusinesses, and domestic and export marketing.

**II. PROJECT DESCRIPTION AND HISTORY**

Although the project had a six year life span, in practical terms it was much like three separate but related two year projects. The focus was adjusted for each of the three phases and the composition of the project team was changed for each period.

**A. The Setting for the CAPM Project**

During the late 1980s, USAID's focus on agricultural research and production-oriented projects began to shift toward market-oriented, free enterprise projects with an emphasis on sustainability.

USAID/Swaziland had supported the Swaziland Cropping Systems Research and Extension Training Project (SCSRET) for nearly seven years when it decided to shift its focus to agricultural marketing. In 1988 Swaziland was said to have an open market system characterized by an active private sector, a positive investment climate, free trading, and substantial opportunity for expanding export markets. USAID believed that Swaziland was ready to promote commercial production by its small-scale farmers, and that the Government of Swaziland (GOS) was willing to support that activity.

**B. History of the Project**

The project was implemented in three distinct phases. The original design, Phase I, was focused on policy change and was abandoned after less than two years. Phase II was designed for more direct assistance to farmers and local marketing organizations. A mid-term evaluation showed that the Phase II approach was not going to achieve the intended outcomes, resulting in the final design, Phase III, which was refocused to concentrate on farmers as producers and farmer organizations as marketers.

**Phase I: Policy and Analysis**

The original CAPM Project Paper was signed in August 1988, calling for a three year project life. Four long-term advisors formed the project team, working within the Ministries of Agriculture and Cooperatives, Economic Planning and Development, and the University of Swaziland. The mandate was broad with a stated objective to carry out a series of action oriented analyses and GOS/private sector support activities in policy and program identification analysis and development; private sector opportunity identification analysis and development; and government and private sector institutional capacity strengthening. Outputs were to be achieved through GOS agencies and the agricultural college of the University. The basic assumption was that inhibiting policies could be identified and corrected and that, with proper policies in place, small-scale farmers had the capacity to respond with increased, marketable production and private sector firms would link small-scale farmers with local and regional markets.

## **Phase II: Vertically Integrated Marketing Firms, UNISWA/OSU Linkage**

In less than two years of Phase I implementation, it was concluded that policies were not the major constraint and that a more streamlined, action-oriented approach, with direct interventions providing technical assistance in field production and marketing of small farm agricultural crops was needed to stimulate commercialization. The seven EOPS indicators for phase I were abandoned and new EOPS indicators developed for phase II. Long term technical positions were changed to include, in addition to a Chief of Party, a Horticultural Specialist, Marketing Advisor, Production Advisor, and four Field Assistants. Mid-way in this Phase a fourth position was added, providing a long-term Agribusiness Advisor.

### **A. Vertically Integrated Marketing Firms**

In late 1992 the project was amended, changing the focus and extending the PACD to February 1994. This changed the project from having a broad, policy centered strategy to one of intensive technical assistance to small-scale farmers and private marketing firms. The intent was to promote commercial agricultural production through vertical integration, linking marketing firms with small-scale farmers. Private marketing firms were provided with technical support and encouraged to source fresh vegetables from local farmers, do the required handling of the produce, and market the product. Farmers received direct support through a system of programmed production training for the crops that were selected to be sold by the marketing firms. Local, regional, and export markets were targeted. A series of production and marketing trials were conducted to assist in identifying niche markets.

### **B. UNISWA - OSU Linkage**

In August 1991, a Michigan State University consultant developed a proposal for U.S. university support to agribusiness curriculum development at the University of Swaziland's (UNISWA) Faculty of Agriculture. In July 1992, a USAID Cooperative Agreement (645-0229-A-00-2010) was signed with the Ohio State University Research Foundation for \$200,000, for the purpose strengthening UNISWA's agribusiness student training and outreach program. The major thrust of the linkage was strengthening UNISWA's student intern program to produce qualified graduates with agribusiness skills relevant to the demands of the private sector and to improve public sector administration. Under the CAPM Chemonics contract, \$200,000 worth of commodities were also purchased for UNISWA to promote linkage objectives.

### **C. Infrastructure Development With Section 416b Funds**

As part of the GOS contribution to CAPM, Section 416 (b) funds, generated from the sale of U.S. wheat donated to Swaziland in 1987-88, were used for infrastructure development to promote CAPM objectives. Initially, approximately \$250,000 were committed for this, then increased during phase III to approximately \$320,000. The funds were to be used for renovation of selected CAPM farmer irrigation schemes and development of infrastructure at UNISWA that would enhance the agribusiness curriculum. By the end of the project, infrastructure developments using these funds included: renovation of two irrigation schemes, construction of packsheds and procurement of equipment for two farmer cooperatives, and construction of a large greenhouse and a produce marketing building at UNISWA.

## **Phase III: Farmer Organizations, SBT, UNISWA/OSU**

Slow and limited progress towards achievement of project goals in Phase II led to a second redirection of the project. In February 1994, following a mid-term evaluation, a project amendment extended the project for a 22

month period and again redirected the focus. A subsequent "no-cost extension" moved the PACD to 31 May 1996, with the Chemonics contract ending 31 March 1996.

The redirection led to a restructuring of the long-term expatriate staff and some changes in locally hired senior staff positions. Positions were COP/Horticultural Specialist, Farmer Organization Specialist, Marketing Specialist, and two local hire Area Coordinators. Field Assistants were retained from Phase II. EOPS indicators and project outputs were revised accordingly.

#### **A. Farmer Organizations**

Due largely to the unwillingness or inability of local marketing firms to link with small-scale farmers and the farmers' stated desire to be more involved in marketing, Phase III focused on development of farmer organizations as a means to plan and market production. This final phase was built on successes during the previous phase with production related targets. Farmers had shown the capacity to produce the necessary quality and quantity of produce. In this phase, the capability of small-scale farmer organizations was to be developed to organize and expand production, and to manage the business of packing and marketing of horticultural produce. The project focused on the formation of farmer organizations that would program production for members, collect and assemble, grade and pack, and market the produce. Packsheds were to be established, staff trained in the operation of the packsheds, and assistance and training provided in business management. This was to be achieved through technical assistance and training and a modest amount of equipment provided for the packsheds.

#### **B. Swazi Business Growth Trust (SBGT)**

USAID initiated and supported SBGT for a 4 1/2 year period through the Swazi Business Development (SBD) Project to assist in the development and growth of indigenous small enterprises. By the time Phase III of CAPM was initiated, SBGT had the capacity and willingness to expand their assistance to small agribusinesses.

In May 1994, USAID/Swaziland, with CAPM funds, made a grant to SBGT for \$100,000 to help SBGT expand its activities into the agricultural sector. The reasons for the grant to SBGT were: (a) during Phase III, CAPM was no longer directly supporting non-farmer agribusinesses and SBGT was seen as an efficient vehicle to carry out this still important function, and (b) SBGT had identified significant potential for agribusiness development in Swaziland. Specifically, the grant funded the cost of recruiting and employing an Agro-Industry Management (AIM) Specialist through the end of 1995. In December 1995, USAID increased the grant by approximately \$18,500 to provide continued support to the AIM advisor until March 31, 1996, when the TA component of the CAPM Project ended.

#### **C. UNISWA - OSU Linkage**

USAID's support to the UNISWA - OSU linkage program was extended into Phase III with a "no-cost extension" through December 1995.

### **III. USAID FINANCED PROJECT COMPONENTS**

Major activities financed by USAID were: 1) technical assistance for development of small farmer production and marketing systems, 2) equipment and supplies for programmed production, 4) vehicles which were later transferred to cooperatives and to MOAC, 5) vegetable packshed infrastructure development, 6) grant funds to promote agribusiness services at SBGT and agribusiness training at UNISWA, 7) short-term training through regional and international tours, and 6) monitoring and evaluation.

#### **IV. END OF PROJECT STATUS (EOPS) Indicators**

Although the goal and purpose remained unchanged throughout the project, the EOPS indicators were changed for each phase. For historical perspective, EOPS indicators for Phase I (policy and analysis phase), and Phase II (assistance to farmers through development of vertically integrated marketing firms), are listed in this section. The earlier evaluations of these phases led to the EOPS and output indicators for Phase III which are presented in Section V below.

##### **A. EOPS for Phase I**

As stated in Section II. B., there were seven EOPS indicators for phase I., based on the assumption that improving policies would stimulate increased production by small farmers and that the private sector would seize the opportunity to market this increased production. These EOPS indicators were: (1) GOS professionals, working in a coordinated manner and in collaboration with the private sector, will be providing decision makers with quality analyses, options, and recommendations for policies and programs that will reduce constraints to production and stimulate increases in commercial agricultural activity; (2) GOS policy makers will be taking action on policy program recommendations needed to stimulate private sector initiatives in commercial agriculture; (3) GOS ministries will be implementing programs required to effect policy changes; (4) the GOS will be playing a regulatory and facilitative role in commercial agricultural development by working collaboratively with the private sector to facilitate its response to an improved environment of commercial agricultural activity; (5) private sector entrepreneurs (small-scale commercial agricultural producers, marketers, suppliers, exporters and other agribusiness and agribusiness associations) will be responding to opportunities for increased commercial agricultural activity; (6) the University of Swaziland will be: (a) training current private and public sector individuals to participate more effectively in commercial agriculture production activities and, (b) preparing future private and public personnel to contribute to commercial agricultural expansion; and (7) improved communication among GOS entities including UNISWA, and between the GOS and the private sector.

##### **B. EOPS for Phase II**

In less than two years of Phase I implementation, it was determined that policies were not the binding constraint and that more direct assistance to farmers and to marketing firms was needed. While the goal and purpose remained unchanged, the original EOPS indicators were abandoned. EOPS indicators for Phase II were: (1) four or more market led, self sustaining, vertically integrated Swazi companies marketing horticultural and specialty crops produced by small-scale growers, providing technical assistance for production and post-harvest activities in response to market signals, and accessing domestic, regional and other export markets; (2) at least 135 small farmers trained and producing in quantities sufficient for efficient post-harvest handling and marketing, and meeting the quality and timeliness requirements of targeted markets; (3) cash income of participating farmers increased from E3,000 or less up to E14,000 as a result of improved product quality, production timing, higher yields, multiple cropping where feasible, crop programming in response to market demand, and other project related factors; and (4) improved understanding by both the private sector and the GOS of the policy environment and support systems that stimulate commercial agriculture in Swaziland.

##### **C. EOPS for Phase III**

In the second redesign, the first EOPS indicator of Phase II was altered to reflect the shift of the marketing function from marketing firms to farmer organizations. Other EOPS indicators were adjusted, based on experience, to make the target numbers more realistic or to use data which could be more easily collected. The

achievements against the Phase III EOPS are discussed below.

## **V. ACCOMPLISHMENTS (VS. PLANNED) FOR PHASE III EOPS AND OUTPUT INDICATORS**

### **A. Achievements of EOPS At the Time of Final Evaluation, March 1996:**

1. **At least two farmer organization businesses effectively managing the production, grading, packing and marketing of horticultural crops.**

**STATUS:** Two Cooperative Societies, Khulemela Kwenta Vegetable Growers Cooperative Society (KK) and Hhohho Fruit and Vegetable Marketing Cooperative Society (HFV), were legally registered and performing the intended functions before the project ended.

2. **150 farmers on 120 hectares are capable of producing marketable horticultural crops to meet market demand.**

**STATUS:** CAPM has met or exceeded this EOPS at one time or another during the last three years. It is likely that CAPM has had an impact on a larger audience than has been documented, due to the fact that many farmers in nearby areas produced vegetables that were sold to the packsheds without officially entering the program, i.e., becoming members of the cooperatives.

3. **Annual net income per hectare of participating farmers increased from about E 4,500 to E 8,000 through increased yields and improved returns from marketing of two crops per year.**

**STATUS:** Participating farmers have increased their incomes appreciably because of CAPM. Despite variations, and shifts in market conditions, the average increase in net income per hectare for participating farmers has far exceeded the target. December 1995 data shows an average income per hectare of E16,603.

4. **In 1995, the total value of CAPM farmer produce exported to regional markets will reach E 650,000; through domestic markets about E 600,000.**

**STATUS:** Targets were largely achieved. In 1995, both production and sales estimates tracked closely the targets set.

### **B. Achievement of Phase III Outputs At the Time of Final Evaluation, March 1996:**

Outputs for Phase III of the project can be divided into three categories of objectives, although they are in many ways overlapping and complementary. These are: 1) training of individual farmers to increase quantity and quality of production, 2) development of farmer organizations as viable businesses to assemble, pack and market members production, and 3) establishment of linkages from the farmer owned packsheds to local and regional markets.

The work with individual farmers, continued from Phase II, has been the most successful aspect of the project. Improved practices and the realization of the potential for increased income from horticultural crops seem to be well established.

The development of farmer organizations has been less successful. It is generally agreed that this output was overly ambitious for the short time available in Phase III.

While the CAPM advisors were able to find marketing channels for the cooperatives' produce, it does not appear that lasting relationships between regional and local markets and the farmer organizations have been established.

**C. Status of EOPS as of August 1996, 2 1/2 Months After PACD:**

- 1. At least two farmer organization businesses effectively managing the production, grading, packing and marketing of horticultural crops.**

**STATUS:** The two Cooperative Societies, KK and HFV continue to perform many of the functions initiated in the project. However, there is considerable difference of the level in which the cooperatives are performing. KK continues with a strong management committee, making needed adjustments in the operations of the cooperative to better serve the needs of the farmer while becoming better aligned to the market situation. HFV has not moved as rapidly, due to weak leadership in the management committee and the fact that the current production season has been a "producers market" and the need for grading the commodities has not been necessary. Nevertheless, both packsheds are being used for assembling the commodities for marketing.

- 2. 150 farmers on 120 hectares are capable of producing marketable horticultural crops to meet market demand.**

**STATUS:** The number of active cooperative members using the packshed facilities is fewer than 100 in total for both cooperatives. However the estimated 45 active KK members produce on substantially more than 120 hectares.

- 3. Annual net income per hectare of participating farmers increased from about E 4,500 to E 8,000 through increased yields and improved returns from marketing of two crops per year.**

**STATUS:** The current production season has been good, thus net income per hectare has increased through increased yields and the favorable market conditions. With the favorable market conditions, marketing through the packshed has not necessarily resulted in the highest returns per hectare.

- 4. In 1995, the total value of CAPM farmer produce exported to regional markets will reach E 650,000; through domestic markets about E 600,000.**

**STATUS:** Due to the favorable market conditions in the domestic market, the majority of the produced is being marketed through this venue. As the season progresses the cooperative managers anticipate an increase in the quantity of commodities being marketed through regional markets.

**B. Achievement of Phase III Outputs as of August 1996, 2 1/2 Months After PACD:**

Outputs for Phase III of the project were categorized into three categories of objectives: (1) training of individual farmers to increase quantity and quality of production, (2) development of farmer organizations as viable businesses to assemble, pack and market members production, and (3) establishment of linkages from the farmer owned packsheds to local and regional markets.

There is little doubt that CAPM's work with individual farmers has been fruitful. Farmers in both cooperatives continue to use improved production practices, source planting materials from firms that they feel are reliable and provide superior planting material, use production inputs judiciously (fertilizers and chemicals), and continue their efforts toward achieving better products.



The development of farmer organizations has been successful. The project may have been overly protective of the organizations resulting in an understatement regarding the viability of the organizations. Cooperative members widely accept the fact that it is highly unlikely the level of support from the Ministry of Agriculture and Cooperatives (MOAC) will increase above that provided during the project. In other words, they have accepted the fact that if they are to survive as cooperatives it will be at their own doing and not through the support of others. Thus, the packshed facilities, including the cold storage units, are being used to address the marketing needs of the members as efficiently as possible.

KK continues to have a viable market information system, and receives both regional and domestic market information via phone and fax. HFV, however, does not have a functioning telephone resulting in their relying, for market information, more on the market agents, who come to their areas to buy produce. Nevertheless, the current status of market information may be more a function of the packshed managers initiative than of available technology, since the HFV packshed manager was only hired in June 1996.

## **VI. Project Impact and Sustainability**

As stated, the CAPM goal was to increase the agricultural sector's contribution to the national economy of Swaziland. The project purpose was to establish an environment that is stimulating increases in small-scale commercial agricultural production, other agribusinesses, and domestic and export marketing.

### **A. Sustainability of CAPM Impact on the Horticultural Sector**

1. During the second phase of the Project, some twenty relatively large, private growers were actively involved with CAPM as fruit and vegetable producers. Approximately ten of these growers continue to produce approximately 1,500 metric tons fresh fruit and vegetables annually on about 80 hectares.
2. Although only one of the four marketing companies helped during Phase II has survived, this enterprise has retrenched from its level of activity under CAPM. Nevertheless, it still operates a thriving fresh produce wholesale business in Mbabane with an annual turnover estimated at E 1.5 million, somewhat larger than before the CAPM intervention.
3. CAPM has helped strengthen the National Marketing Board as an institution, and indirectly, to strengthen the fresh produce trading activity that the Board oversees at Encabeni market. In addition, CAPM helped organize an active early-morning produce auction market at Encabeni market.
4. CAPM has helped strengthen the MOAC's research and extension staff through the technical knowledge gained in horticultural production. A comprehensive production manual, developed by the project, was left with MOAC. Assistance from extension workers to the cooperatives members is limited. In the case of KK this assistance is sufficient to continue the upward trend in farmer productivity. However, this is not the case for HFV.
5. Produce packing facilities, complete with sorting and grading equipment, and cold rooms have been established at HFV and KK cooperatives. Policies, procedures and operating systems have been developed for each cooperative, and personnel have been trained in their use. The sustainability of this effort will depend on the management and financial capability of the two cooperatives to carry on without further external financial support.

6. Of around 320 small horticultural producers who have benefitted from their exposure to CAPM, the final evaluation estimates that a core group of possibly seventy producers will likely continue commercial farming operations after the Project withdraws.

7. Three technicians who previously worked as members of the CAPM staff have established their own farming operations and are successfully marketing fresh produce. The total size of their operation is estimated to be 15 hectares producing approximately 300 metric tons annually.

### **B. Impact of CAPM on the Swazi Environment**

During the last four years of the CAPM, more than 300 training events were carried out, of which one-third dealt with production techniques. Through the demonstration of proper application methodologies, farmers learned what, when, and how much of each input to use in their plant production practices. Considerable time was spent on the use of protective clothing and gear to avoid human contamination by hazardous compounds.

During the last year of the project, CAPM staff and UNISWA faculty taught the farmers how to "scout" their fields for disease and insect damage and to report their findings to the Field Officers. The importance of pesticide residues and the timing of the last application before harvesting was also stressed in farmer training events. CAPM recommendations on pesticide use meet the regulations of the U.S. Environmental Protection Agency.

Water management was taught so that excessive amounts of water were not used in vegetable production. Alternative irrigation methods were shown (i.e., drip irrigation) to improve water efficiencies and to encourage the conservation of water from the irrigation schemes and/or rivers.

### **C. SBTG Agro-Industry Management Services**

Since the appointment of its agro-industry advisor in February 1995, SBTG has expanded rapidly into agribusiness loans. Agro-related loans have increased by 300% since the arrival of the advisor. Apart from the traditional agricultural lending activity of the Swazi Development Bank (which is in financial difficulty to the extent that it has curtailed much of its activity in the agriculture sector), SBTG is the only financial institution that makes small-scale "development" loans to agribusiness operators.

All but a handful of the SBTG loans to the agricultural sector are under E15,000 (\$4,000), which corresponds to small and micro-enterprises. An important note from a developmental perspective is that most of these clients are first-time borrowers. SBTG helps them analyze the potential of their business idea on a partial cost recovery basis where the client pays a small fee for analytical services. Also, a few borrowers can finance progressively greater amounts as each old loan is repaid and a new loan provided to them.

Most SBTG loans have been "harvest" loans for a wide range of crops, including timber. The borrower is required to sign a standing instruction that authorizes the buyer of his crop to retain loan repayment amounts and remit the proceeds to SBTG. The buyer, on the other hand, certifies that he will buy the crop and will retain the loan repayment. In the event that the borrower does not have a guaranteed market he may still be considered for a loan, provided he has a solid reputation. SBTG's recovery rate for harvest loans is good, at 95 - 98%. SBTG also has a loan program for equipment purchases with repayment periods of up to five years. This category of loans is normally secured by a mortgage of real property.

Based on the outcome of an upcoming internal evaluation of its agribusiness program, SBTG may expand its

business into agro-industrial crops such as citrus and sugar. An important outcome of the agribusiness loan program is the amount of employment generated. A rough estimate is that SBGT's agribusiness loan program has generated direct employment equivalent to 200 new jobs in the agricultural sector. SBGT's agribusiness loan program can be fully sustainable beyond the end of the CAPM Project.

#### **D. University of Swaziland/Ohio State University Linkage**

USAID's support to this linkage activity was deemed by the final evaluation to be very cost effective. The program was able to build upon the close relationship which UNISWA and OSU have had in the past. As a result, the start of this linkage in July 1992 found both institutions with ongoing, strong collegial ties which are likely to continue. A partial list of activities and accomplishments resulting from the 30 month linkage between the UNISWA's Faculty of Agriculture and OSU's College of Agriculture (and to a secondary extent Pennsylvania State University's College of Agriculture) is: (1) Student Attachment Program; (2) preparation of agribusiness case studies; (3) assessment of the horticultural industry in Swaziland and recommendations on establishing a department of horticulture; (4) visitations of UNISWA faculty to Ohio and Pennsylvania to review student attachment (intern) programs at academic institutions in these states; and (5) workshops on (a) tractor maintenance and repair, and (b) pesticide application.

A prime objective of this linkage was to increase the capability of UNISWA to provide students with a better, career-oriented curriculum. To this end, a major focus was establishing the Student Attachment Program (SAP). SAP has had a significant impact on the students who have undergone the attachment experience since it began in June 1993. In 1995, 52 students participated in SAP through employment at 42 local agribusiness entities. These numbers are likely to increase to about 100 students per year in the future. As of early 1995, a database of 114 Swazi agribusiness and food processing firms had been contacted regarding possible participation in the SAP, and 65 had shown their willingness to participate.

The CAPM final evaluation (March 1996) found that: (1) all employers of students were happy with the SAP; (2) all were able to use the SAP participants as part of the regular operations, i.e., they did not have to design programs for them; (3) several of the companies paid the participants a wage comparable to other workers; (4) all of the companies covered any expenses related to the student's performing "company" business; (5) all looked upon the SAP as a potential source of future employees; (6) all companies felt that the SAP opened communications and channels of technical interchange with the university faculty. In spite of widely varying experiences, all students interviewed felt strongly that the SAP was a worthwhile exercise and should be continued.

The SAP to date, now entering its fourth year, seems assured of being sustained at the Faculty of Agriculture. Although the teaching calendar and teaching load limit the number of faculty members who actively participate in the program, those who have participated suggested that this was a positive experience, suitable for incorporation into classroom teaching as well. Faculty ask for the reports written by students after their internship, and hold them responsible for explaining to other students the skills learned during their attachment. They also stated that contacts with farms and firms to be a critical feedback mechanism for adjusting course material to ensure that it is relevant.

Key to the sustainability of the SAP is the continuation of a strong outreach coordinator. This person has been an expatriate who has been allowed the time to develop important linkages between the University and the agribusiness community. He will continue in this position through 1997. His replacement by a qualified Swazi is critical. In addition, UNISWA should formalize the coordinator position as a full-time academic position with other related responsibilities such as coordinating an agribusiness advisory council for the faculty and compiling/

analyzing feedback on the Faculty from the community. UNISWA also must support the program with an adequate budget, transportation, and involvement of numerous faculty serving as individual student supervisors.

## **VII. Recommendations for CAPM Farmer Organizations**

The following recommendations made by the evaluation team in March 1996 are based on the underlying assumption that the two cooperatives will require additional intensive support for at least two more years before they are mature and able to function as sustainable small-scale farmer cooperatives. Since USAID/Swaziland is closing, there is no possibility for further USAID support. Thus, these recommendations are addressed to the MOAC and others who might want to build upon the CAPM experience. Suggestions related to this include:

1. Provision of support to cooperatives scaled-down from the level provided by CAPM. This could include a TA coordinator with additional technical assistance to support production, packshed operations, marketing, and the development of the cooperatives. A minimal level of office staff support should be included. This technical assistance should work with the USAID-supported Israeli Horticultural Specialist who will be in Swaziland at least through mid-1997.
2. Provide as much continuity with the current CAPM project as possible. Make use of the knowledge, experience, and understanding of the issues gained by the CAPM team and, take advantage of team members still residing in Swaziland.
3. In consultation with farmers, consider some modifications to Phase III CAPM strategy, but with caution not to make radical changes that would confuse farmers and might negate progress made. An option, described in detail in an annex to AGRIDEC's final external evaluation, is for each cooperative to lease their packshed operation to an outside entrepreneur who would prepare and market co-op production, so that members could better concentrate on the area they know best, i.e., production. Considerations for this option include: interest of the farmers to lease the packshed, identification of a serious, reputable entrepreneur, and capability of farmers to produce in consistent quantity and quality which they will sell to the packshed.
4. Prevent a significant gap in the support provided, especially since at the end of the project the two cooperative are entering their major season when they will require good advice and limited financial support.
5. The MOAC and the respective donor agencies should link the two CAPM-supported cooperatives to planned or ongoing development projects in Swaziland.
6. To encourage Swazi horticulture, NAMBOARD should establish a farmers' market at a convenient location near the present Encabeni market site. Eventually, when either or both Cooperative Societies have the administrative capability to manage the activity, NAMBOARD should provide an outlet at the Encabeni Market where the cooperatives themselves could market their produce.
7. The MOAC and cooperatives should work to sustain the present Project Advisory Committee (CAPM Working Group) so that it can continue to help the cooperatives it now serves, as an advocacy group before the MOAC, international donors, and the agribusiness community.

## **VIII. Lessons Learned**

Experience with the CAPM project provided information on what is not effective in promotion of small-scale commercial horticultural enterprises and the formation of cooperatives for developing farmers. The following

numbered lessons learned were included in the March 1996 evaluation. The comments added at the end of each section are attributable to the cursory evaluation undertaken in August 1996, 2 ½ months after the PACD.

#### **A. Farmer Organizations**

1. Adequate time must be allowed for the development and maturation of small-scale farmer organizations. This is a long-term process which requires considerable training over an extended period, since changes in attitudes, perceptions, and thinking of individuals often need to occur. Expectations of members as to what is achievable and desirable, an understanding and acceptance of members rights and responsibilities must develop.
2. Short-cuts in the process of forming organizations should not be taken in order to save time. Basic training should be adequately done at the very beginning of such an undertaking to prevent misunderstandings and divisions from developing at a later stage.
3. The number of cooperatives members, especially during the formative period, is not as critical as the level of commitment by the members. In this regard it may be better to begin with fewer members who are committed, and later focus on a larger number of members after the principals of operations have been established and demonstrated.
4. Money and short-term technical assistance can not substitute for time and the essential training that is required.
5. Personal growth issues relating to social and cultural issues, especially as they relate to group dynamics, must be given adequate consideration at the beginning of the formation process for the organization.
6. An adequate and appropriate record keeping system should be in place at the very start of a cooperative. Training of individuals in the use of the system should occur throughout the project period.
7. The by-laws, policies, objectives and goals of the project must be clearly developed and understood by those involved. The organization must operate according to these.
8. A clear and sensitive awareness of traditional culture and it's implications to commercial farming and farmer organization development.
9. Training for membership, management committee, and employees of the organization is essential and must be on-going, often repeating the same message. Roles of each group must be understood and accepted. The management committee should direct the overall course of the business and the manager should be in charge of the daily operations.
10. The development of a sustainable small-scale farmer cooperative engaged in programmed production and marketing of fresh produce requires careful and sound management from the outset. This likely will require intensive involvement by the project in actual management for the first one or two years.
11. The ability of MOAC to contribute positively to farmer organization development and the necessary production support to farmers is limited. While it was assumed that the earlier USAID SCSRET project strengthened the MOAC, additional CAPM effort should have been aimed at improvement of the MOAC capabilities in the areas of extension, related research, and cooperative development, to improve their ability to provide support both during the project and after it ended.

12. The small-scale Swazi farmers themselves are the ones most motivated to sell, collect, and ship their produce to markets.

The assumption that the period for developing a viable cooperative was not sufficient in Phase III is not substantiated from the cursory review undertaken in August 1996. Definitely the lessons stated above are important when considering the development of a small-scale farmer production and marketing cooperative, but the initiative and desire of the small-scale farmers themselves to have a sustainable organization is a necessary condition for success.

## **B. Production**

1. The development of small-scale farmers to a successful commercial status requires very focused and intensive technical support, especially production and post-harvest advice. This involves the use of appropriate production methods, formal training, and regular one-on-one visits by technicians to the farm site. This support is in sharp contrast to that generally provided by public institutions or private sector input businesses. These entities can not be expected to provide the intensive support required.

2. Not all subsistence farmers can become successful commercial farmers. To achieve success, some form of selection criteria must be used. Not all farmers possess the necessary requirements to reach a sustainable, commercial level. Things necessary for success include: (a) a minimum level of resources (land, equipment, etc.), (b) a desire to succeed and a willingness to invest the necessary effort, (c) the ability to assimilate training and understand the basic technical concepts; and (d) a willingness to accept and consider advice. To ignore any of these criteria will waste valuable project resources.

3. Credit is an essential element to enable developing farmers to reach commercial status, especially for high input requiring vegetable and fruit production. This, in the long-run, is much more effective than subsidies of direct financial support.

4. Small-scale farmers can be expected to produce high quality products, in a very efficient manner. For crops such as vegetables, which require intensive production management, small-scale production units are very appropriate.

5. Swazi farmers are resilient, hardy, rationale individuals. They will persist through considerable adversity, hail, droughts, erratic markets, etc., given adequate opportunity.

6. Failure to follow recommended production methods were the most common reasons for low yields and poor quality. Disease and insect control were the most common contributing factors to failure, followed by poor water management and improper fertilization. Successful commercial production of vegetables generally requires careful, informed management.

7. Production programs must be developed carefully and reasonably. Once programs are implemented it is essential that they are followed and that every effort is made to sell the resulting produce. Failure to sell product that was programmed will result in a loss of faith by farmers.

Farmers in general are rationale decision makers regardless of whether they are large-scale or small-scale. The fact that KK farmers are using "good" planting material of the varieties demanded by the market is an indication of this.

### **C. Packsheds**

1. A packshed must add value to the product delivered by farmers and be able to show farmers a definite financial advantage for using the packshed, if the farmers are to be expected to support the packshed. The packshed is more than a receiving depot.
2. Although a minimum volume of product is required to cover packshed costs and meet the needs of selected markets, proper handling of the produce, adding value to it, marketing it well, and overall efficiency is more important to immature operations than volume. Consistency of supply is also paramount.
3. Quality control is essential to provide a consistently marketable product that is acceptable to the target markets. Grade standards set by the market must be maintained and substandard product should not be accepted by the packshed.
4. Packshed charges must be set realistically. Farmers need to pay for services provided and the packshed must be able to provide the farmer with a fair and competitive return. However, packshed charges must not be set too high, covering inefficient and improper operations, any more than they dare be inadequate to cover legitimate costs.
5. Field crates (plastic lug boxes) are attractive to farmers and provide an easy method of packaging. However, they are difficult to control and expensive to replace. An adequate system of control must be followed. It is advisable that individual farmers have their own crates for harvesting and delivery to the packshed. Buyers of bulk materials should likewise provide their own lug boxes.
6. The hired manager must be in charge of packshed operations and not be interfered with by the management committee or general membership in his daily business responsibility.
7. Some spoilage at the packshed is inevitable, perhaps in the range of 10 percent, and must be accepted. Efforts to reduce this loss must be reasonable and not lower grading standards for the product.
8. Poor handling by farmers during and after harvest results in considerable loss of product.
9. Sale of produce should remain the primary business of the cooperative, although sale of inputs can produce revenue and provide an important service to members, if properly managed.

Although a packshed has the capability of being more than a receiving depot, when conditions exist where field grading suffices for maximizing market returns the packshed plays an important role as a receiving/assembling depot. In addition, cold-stores are being fully utilized to improve the quality of the produce being marketed.

### **D. Marketing**

1. It is difficult for farmers to accept that markets, not the growers, set prices and other conditions.
2. Only relatively small volumes of most vegetable crops can be absorbed by the Swaziland markets. Large volumes must generally be sold outside the country.
3. Both cooperatives must strive to expand the range of fresh produce they provide to broaden their market appeal.

4. Both cooperatives need to accept that marketing is often expensive and be willing to provide product packaged to meet the demands of the market.
5. Marketing by the cooperatives should develop in an evolutionary manner. Each cooperative began at an rudimentary level of production and marketing and are proceeding to more sophisticated level. This will take time and perseverance.
6. There are various ways to market, each with it own positive and negative aspects. Each cooperative must continue their education and develop a marketing approach that is feasible and fits their requirements.

Both HFV and KK are still seeking their niche for marketing of produce. KK has diversified the number of commodities assembled at the packshed thereby making the packshed more of a focal point for the various buyers. Using a fixed procedure/process for marketing of all commodities may be unrealistic to the cooperative resulting in numerous changes occurring over the production/marketing period.

#### **E. General Project Development**

Although considerable time effort and expense were involved in each CAPM redesign, including use of teams of outside experts, there are several points about the project design which, in retrospect may have impeded effectiveness.

1. Assumptions made in the original design and in each redesign were not clearly stated in the project documents. A clear statement of assumptions might have been very useful for those trying to redesign the project in mid-course. Further, project documentation is lacking to show how the results of the initial study phase informed the second phase of the project.
2. Because of internal regulations that required AID/W approval if the goal or purpose of the project were altered, there was resistance to restating goal and purpose when it became apparent that changes were needed. Adherence to original statements may have unnecessarily distorted the redesigns.
3. The resources devoted to a relatively small number of farmers may have exceeded anything that could be sustained without further donor assistance. The same, or even smaller funding, spread over a longer time frame might have enhanced sustainability.

Performance based contracting may not be the appropriate approach for contracting for supporting the development of small-scale farmer organizations and/or micro-enterprises.



## IX. PENDING ACTIONS FOR PROJECT CLOSE-OUT

### A. Financial

1. Send a letter requisition Pennsylvania State University to submit a final voucher to USAID/Swaziland.

<u>Action Agent</u>	<u>Time Frame</u>
PGDO/FM	June, 1996

2. Complete all de-commitments.

<u>Action Agent</u>	<u>Time Frame</u>
PGDO/FM	June, 1996

3. Deobligate a total of \$....,....00 undisbursed funds after careful reconciliation.

<u>Action Agent</u>	<u>Time Frame</u>
Controller	July, 1996

### B. Technical

1. Close the Project files and prepare for forwarding to appropriate storage

<u>Action Agent</u>	<u>Time Frame</u>
ADO	June, 1996

2. Prepare Contract/Project completion report.

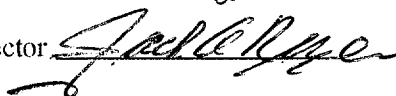
<u>Action Agent</u>	<u>Time Frame</u>
RCO/PGDO	July, 1991

Clearances:

David Martella, REDSO/AGR/Advisor



Jack Royer, Acting Director



## ACRONYMS

CAPM	Commercial Agricultural Production and Marketing Project
E	Emalangeni
EOPS	End of Project Status
GOS	Government of Swaziland
HFV	Hhohho Fruit and Vegetable Marketing Cooperative Society
Ha	Hectares
Kg	Kilograms
KK	Khulemela Kwenta Vegetable Growers Cooperative Society
LTTA	Long-term Technical Assistance
MOAC	Ministry of Agriculture and Cooperatives
Mt	Metric Tons
NAMBOARD	National Agricultural Marketing Board (or NAMB)
OSU	Ohio State University
PACD	Project Assistance Completion Date
SAP	Student Attachment Program
SCSRET	Swaziland Cropping Systems Research and Extension Training Project
SBD	Swazi Business Development Project
SBGT	Swazi Business Growth Trust
SNL	Swazi Nation Land
STTA	Short-term Technical Assistance
TA	Technical Assistance
TDL	Title Deed Land
UNISWA	University of Swaziland
USAID	United States Agency for International Development
VIF	Vuvulane Irrigated Farms

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