Productive Sector Growth and Environment Division
Office of Sustainable Development
Bureau for Africa
U.S. Agency for International Development

Import Substitution and Export Promotion
Prospects for the Horticultural and Poultry Subsectors in Swaziland

Richard L. Meyer and Geetha Nagarajan
Rural Finance Program / Department of Agricultural Economics
Ohio State University

October 1995

This publication is part of a series of reports from:

USAID / Africa Bureau
Office of Sustainable Development
Productive Sector Growth and Environment Division
Private Sector Development Unit
Activity: *Effectiveness of Financial Services for Agribusiness Development in Sub-Saharan Africa*

The series includes:

- Exporting Fresh Fruits and Vegetables to Europe: *Potential and Constraints for Gambian Producers*
- Financing and Marketing Horticultural Products in Ghana: *The Prospects for Export Growth*
- Marketing and Financing of Agriculture and Agribusiness in Madagascar
- Input and Output Distribution Networks in the Agribusiness Sector in Rwanda: *Markets or Pre-Markets?*
- Import Substitution and Export Promotion: *Prospects for the Horticultural and Poultry Subsectors in Swaziland*
- Comparative Analysis of Economic Reform and Structural Adjustment Programs in Southern Africa: *Emphasis on Agriculture and Trade*
- Financing and Marketing Horticultural Exports in Uganda

For more information about the series, contact:

Charles Whyte, USAID/AFR/SD/PSGE
Rm 2744 NS, Washington, D.C. 20523-0089
Tel: 703-235-3788; Fax: 703-235-3805
Internet: cwhyte@usaid.gov

Publication services provided by **AMEX International, Inc.**
pursuant to the following USAID contract:

Project Title:	Policy, Analysis, Research, and Technical Support Project
Project Number:	698-0478
Contract Number:	AGT-0478-C-00-3168-00

Foreword

The Development Funds for Africa (DFA) has challenged the U.S. Agency for International Development (USAID) to scrutinize the effectiveness and impact of its projects in Africa and make needed adjustments to improve its development assistance programs. Structural adjustment programs have been adopted by many sub-Saharan African countries, often with reluctance, but some significant economic development progress has been made.

As donor agencies face severe cutbacks and restructuring and less assistance becomes available to developing countries (not just in sub-Saharan Africa), new ways must be found to channel declining resources to their most effective and productive uses. Donor agencies like USAID, therefore, are increasingly looking at the private sector for sharpened competitiveness, and often to agriculture, which is the dominant sector of sub-Saharan African economies, as the potential catalyst for generating broad-based, sustainable economic growth. The USAID Africa Bureau's Office of Sustainable Development, Productive Sector Growth and Environment Division (SD/PSGE) has been analyzing the Agency's approach to the agricultural sector in light of the DFA and the experience of recent structural adjustment programs in several sub-Saharan African countries.

In January 1991, the Africa Bureau adopted *A Strategic Framework for Promoting Agricultural Marketing and Agribusiness Development in Sub-Saharan Africa* to provide analytical guidance to USAID/Washington, the Regional Development Support Offices (REDSOs), and field missions. The framework suggests that:

- while technical and environmental problems must continue to be addressed, a major cause of poor performance of the agricultural sector has been the inefficiency of financial and marketing systems; and
- improving financial and agricultural marketing systems can have a significant beneficial impact on incomes, foreign exchange earnings, domestic consumption, and food security.

The framework further suggests that private agribusiness firms and supporting financial services have a critical role to play in the development of more efficient agricultural marketing systems, and more empirical information is needed regarding specific policies, regulations, institutions, and services that can best promote more efficient marketing systems and private agribusiness growth.

To enhance the Africa Bureau's analytical guidance and technical support that it provides to the field, SD/PSGE initiated a series of country case studies to investigate and analyze:

- marketing and financial strategies of horticultural subsectors in five countries (The Gambia, Ghana, Rwanda, Uganda and Madagascar); and
- import substitution and export promotion of the horticultural and poultry subsectors in Swaziland.

This document, ***Import Substitution and Export Promotion: Prospects for the Horticultural and Poultry Subsectors in Swaziland***, is a product of these studies. Ohio State University conducted the field research and report preparation. **USAID/Swaziland** was particularly helpful in providing counsel and direction of field research and reviewing the draft report. SD/PSGE staff also reviewed the document and provided comments. SD/PSGE believes that this report will be useful to field missions in sub-Saharan African countries, in providing insights, ideas, information, approaches, and strategies for financial servicing, marketing, and agribusiness development.

Michael Unger
Senior Private Sector Advisor and Unit Leader
Private Sector Development Unit
USAID/SD/PSGE

Economics and Sociology
Occasional Paper No. 2192

IMPORT SUBSTITUTION AND EXPORT PROMOTION: PROSPECTS FOR THE HORTICULTURAL AND POULTRY SUBSECTORS IN SWAZILAND

by

Richard L. Meyer

and

Geetha Nagarajan

December 1994

Case Study prepared for the Bureau of Africa, Office of Sustainable Development, Division of Productive Sector Growth and the Environment
Agency for International Development, Washington, D.C.
Under the Project "Agribusiness Development in Sub-Saharan Africa,"
Contract No. DHR-5450-A-00-9084-00

Rural Finance Program
Department of Agricultural Economics
The Ohio State University
2120 Fyffe Road
Columbus, Ohio 43210-1099

Acknowledgements

The Ohio State research team depended on the generous cooperation of many people and institutions in Swaziland to successfully carry out this study. They include all those mentioned in the list of contacts provided at the need of this report. Here we would like to recognize the outstanding cooperation of several people who helped us with the study. We are particularly grateful to Michael Dlamini and Mark R. Wood, our local consultants, for their invaluable assistance in designing the study and facilitating logistical operations throughout our stay in the country. The interviewing skills of Ivy-Joy Makuyana and Hazel Kunene helped us to gather data and information. Thanks are also due to the many horticultural and poultry entrepreneurs who contributed their valuable time and insights to understand the complexities and opportunities of the subsectors studied.

We very much appreciate the outstanding cooperation of the staff of the USAID mission who helped us in too many ways to enumerate here. The USAID Director Valerie Dickson-Horton and the U.S. Ambassador John Sprott encouraged us in our work. Steve Goertz and Jack Royer were key staff members who provided valuable professional counsel and helped steer us in the right direction. Most of all, we wish to thank Jamie Raile whose encouragement and assistance were indispensable in all phases of our work.

The insights about South African policies and markets provided by Nick Vink and Gerhard Coetzee of the Development Bank of Southern Africa were very much appreciated. None of the above should be held responsible for the opinions presented here or possible errors that may remain.

List of Acronyms

CANGO	Coordinating Assembly of Non-Governmental Organizations
CAPM	Commercial Agricultural Production and Marketing Project
CDC	Commonwealth Development Corporation
CMA	Common Monitary Authority
DBSA	Development Bank of Southern Africa
EDF	European Development Fund
GATT	General Agreement on Trade and Tariffs
GDP	Gross Domestic Product
GTC	Growth Trust Corporation
IFC	International Finance Corporation
NAMBOARD	National Agricultural Marketing Board
NFPM	National Fresh Produce Market
NGO	Non-Governmental Organization
NRDA	Northern Rural Development Area
SACU	South African Custom Union
SBGT	Swaziland Business Growth Trust
SDSB	Swaziland Development and Saving Bank
SFPM	Swaziland Fresh Produce Market
SIDC	Swazi Industrial Development Corporation
SNL	Swazi National Lands
TDL	Title Deed Lands
WID	Women in Development

Table of Contents

Executive Summary iv

I. Introduction 1

II. The Bane and Blessing of a Small Country with a Large Neighbor 3
1. Product Pricing in South Africa and Its Impact on Swaziland 4
2. Advantages and Disadvantages for Swazi Agricultural Producers 5
3. Implications for Swazi Producers 6
4. Role of the National Agricultural Marketing Board (NAMBOARD) 6

III. The Horticultural Subsector: Participants, Marketing Structure, and Prospects for Expansion 7
1. Participants in the Subsector 7
A. Producers 8
B. Consumers 10
C. Marketing agents 13
D. Support Service Agents and Support Services 14
a. NAMBOARD 14
b. CAPM Project 16
c. Support services: Infrastructure and transport facilities . . . 18
2. Prospects For Expanding and Improving the Subsector 19
A. Advantages 19
a. Business environment 19
b. Climatic conditions 19
c. Availability of technology and skills 19
d. Infrastructure 20
e. Market 20
B. Constraints 20
a. Competition 20
b. Lack of infrastructure and irrigation facilities 20
c. Thin financial markets 21
d. Poor market information 21
C. Prospects for expansion 21
a. Diversification 21
i. Canning industry 21
ii. Pickling industry 22
b. Role for small farmers 22
c. Role for large farmers 23

IV. The Poultry Subsector 23
1. Major participants in the subsector 24

A. Producers . . . 24
B. Input suppliers . . . 25
C. Marketing systems . . . 26
D. Retailers . . . 26
2. Support Services . . . 27
3. Challenges for Expanding and Improving the Subsector . . . 27
A. Advantages . . . 28
a. Market . . . 28
b. Availability of technology and infrastructure . . . 28
c. Resources . . . 28
d. Disease Control . . . 28
B. Constraints . . . 28
a. Regular supply of inexpensive inputs and support services . . . 28
b. The characteristics of the enterprises . . . 29
c. Complex management . . . 29
d. Competition from South Africa . . . 29
e. Access to capital . . . 30
4. Sustainability of Innovative Sponsored Projects . . . 30

V. Financial Services for the Horticultural and Poultry Subsectors . . . 32
1. Formal Financial Agents and Loan Guarantees . . . 33
A. Private Commercial Banks . . . 33
B. SDSB . . . 34
C. SBGT . . . 34
D. SIDC . . . 37
E. Guarantee Schemes . . . 37
2. Semi-formal Financial Agents . . . 38
3. Informal Financial Agents . . . 38

VI. Conclusions and Recommendations . . . 38
1. Provision of Public Goods . . . 39
2. Special Studies and Training . . . 40
3. Stimulating Investments in the Subsectors . . . 40
4. Formal Sector Lending . . . 41
5. Producer Associations . . . 42
6. Investments in Human Capital . . . 42

References . . . 43

List of Figures

Figure 1. Flow of Commodities in the Horticultural Subsector in Swaziland 8
Figure 2. Cabbage Prices—Pretoria Wholesale Market 11
Figure 3. Green Pepper Prices—Pretoria Wholesale Market 11
Figure 4. Butternut Prices—Pretoria Wholesale Market 12
Figure 5. Sweetcorn Prices—Pretoria Wholesale Market 12
Figure 6. Flow of Produce and Finance for Swazi Horticultural Produce in Regional and Overseas Markets 14
Figure 7. Flow of Products in Swaziland Poultry Subsector 24

Executive Summary

I. Introduction

With a rapidly growing population and labor force, Swaziland is concerned about the need to create employment opportunities. Agriculture provides 34% of the formal sector employment with the private sector providing about two-thirds of the total agricultural sector employment. The demand for formal sector employment is estimated to increase from 75,000 in 1991 to 82,000 by 1995 and the private commercial farms will be able to increase their demand for labor from 25,000 to 40,000. Formal employment in the public sector, has stagnated, however, and recorded negative growth in the late eighties. The demand for Swazi workers in South African mines has also declined and the country's industrial base may shrink with the possible shift of several multinational companies from Swaziland to South Africa. These developments place an even greater burden on the agricultural sector, small businesses and self-employment to create jobs in the future.

Small farm horticultural and poultry production have traditionally been considered as low income agricultural enterprises. These two subsectors are important, however, because of their large employment and income generating opportunities, especially for rural women. The country enjoys favorable production conditions for growing many sub-tropical and temperate horticultural products and for producing disease free poultry. Production technology and inputs can be easily imported from neighboring South Africa. A domestic market is available for import substitution production unlike several other Sub-Saharan African countries that are already self-sufficient in these products. To a lesser extent, there are also opportunities for exports to neighboring African countries. But developing production and marketing systems for these two subsectors that produce economic returns that are attractive compared to non-farm employment represents a formidable challenge.

The objective of this study was to analyse the potential for growth in these two subsectors. It is part of a series of case studies conducted by The Ohio State University through a project with the African Bureau, USAID, Washington. It summarizes the marketing and financial strategies used by the various agents operating in these two subsectors in Swaziland. Their prospects for effectively substituting for imports to service domestic markets and to contribute to exports are discussed and the policy implications are identified. A modified subsector framework was used in the study to examine the commodity and financial flows that link producers with consumers.

II. The Bane and Blessing of a Small Country with a Large Neighbor

Many developing nations have natural trade barriers in the form of high transportation and transaction costs which constrain their ability to sell in distant markets, but also protect them against more efficient foreign competitors. Swaziland, however, has a more complicated situation. It is close to a large, more modern economy in South Africa. Futhermore, by being part of the South African Customs Union (SACU) and the Common Monitary Authority (CMA), it follows regional monetary and trade policies. This means that the country's producers receive some protection from cheaper foreign suppliers, but they must compete with more efficient South African producers. This situation provides opportunities for but also constrains the development of the horticultural and poultry subsectors and affects the policies that can be employed to stimulate development.

This situation has four important implications for Swazi horticultural and poultry producers. First, the technology and inputs appropriate for import substitution production in Swaziland are available as close by as South Africa, and they have to be adopted by Swazi producers if they hope to be competitive. Second, strong management and organizational skills are crucial for Swazi producers so they can adopt these modern production systems. This presents a challenge for many small farmers. Third, the low cost high quality demands of domestic markets imply that there are limited opportunities for "learning by doing" in which Swazi producers initially supply lower quality domestic markets, then expand into increasingly competitive export markets. Fourth, Swazi producers need to carefully identify possible niche markets in which they are somewhat protected from lower cost foreign producers. For the horticultural subsector, these niches may be most logically found during the winter season when South Africa production is reduced.

III. Production and Marketing Structure of the Horticultural and Poultry Subsectors

The production system for horticultural products consists of a few large commercial farms and several small farms. In general, the participants specialize in only one activity such as production, marketing or exporting. Very few operations are totally or even partially integrated. The majority of transactions are effected through spot markets. The lack of integration implies that the subsector is still in its infancy compared to other major SubSaharan African exporting countries. Marketing services are provided by retailers, wholesalers, hawkers and market women linked to several municipal markets, and the wholesale Swaziland Fresh Produce Market (SFPM). A limited amount of low value horticultural crops are exported and exports to South Africa are significant during the winter months. However, the country is far from fully exploiting its full potential in this niche market. A few commercial farmers have been contracted to grow minivegetables for European markets.

The poultry subsector is also bimodal. There are a few large broiler and layer operations, usually owned or operated by whites, employing modern technology with operational costs low enough to compete with South African producers. A large number of smaller producers supply

households and local markets. Domestic production represents only a fraction of total consumption, especially for high quality eggs and broilers. However, unlike horticulture, there are no strong seasonal production patterns so Swaziland has no clear seasonal advantage relative to South Africa. Also unlike horticulture, there are no wholesale markets for poultry. Point of lay pullets, day old chicks, and most feed and equipment for layer and broiler operations are imported.

IV. Financial Markets for Horticultural and Poultry Subsectors

Swaziland does not have a well-developed financial system with the capacity to effectively screen rural borrowers, monitor loans, and recover most of the funds lent. Most of the agricultural lending is done by the Swaziland Development and Saving Bank (SDSB) with donors being an important source of funds. Formal bank loans are available only to the largest horticultural and poultry producers. As a result, much of the funding for these two subsectors is equity capital and informal loans. Of the total loans and advances made in 1992 by formal banking institutions, the agricultural share was only 8.4%. Roughly two-thirds of the lending by banks to agriculture is done using the overdraft system. Even the overdrafts are usually fully collateralized so farmers are at a disadvantage if they have few assets acceptable as collateral. The four private commercial banks viewed small farmer lending as costly and risky, and none saw the Central Bank guarantee programs as effective means to reduce lending risk. The majority of the formal lending to smaller scale producers is done by SDSB. Currently, the SDSB is experimenting with group loans to vegetable growers, and the repayment rates are expected to be higher than loans to individual maize growers. The group lending approach is reported to have increased access to formal loans for women who otherwise need collateral and their husbands' consent to secure loans. SDSB area officers have also been involved with the CAPM project steering committee in assessing crop performance and in marketing.

The SBGT has the potential to become an important source of financial services for these two subsectors, but its subsidiary, the Growth Trust Corporation (GTC), has made few loans to the poultry or horticultural producers. Of the 909 clients serviced from October 1992 to May 1994, only 23 and 38 were in poultry and horticulture, respectively. Of the total volume of loans issued in 1994, loans to poultry and horticulture accounted for only two and four percent, respectively. Poultry and horticultural loans recorded repayment rates of 89 and 83%, respectively, compared to 95% for other sectors. It would be difficult for the GTC to make more poultry and horticultural loans to small producers because the transaction and risk costs involved could not be covered with current interest rates. The rates cannot be increased, however, beyond the current 33% without potentially attracting a more risky clientele.

Approximately 13 NGOs are actively engaged in promoting horticultural production and seven in poultry. There is also a fair amount of informal finance used in these subsectors. Rotating Savings and Credit Associations (RoSCAs) are commonly found among market women selling horticultural products. Suppliers credit is also commonly granted by producers that supply hotels, supermarkets, and by retailers to a small group of their regular clientele. However, small

producers seldom extend credit to their buyers but are mandated to sell on consignment when trading through market agents at SFPM. The few existing outgrower schemes seldom provide credit or other production inputs. In the poultry subsector, a fair amount of suppliers credit is granted to customers who make large purchases and have well established business relationships. Large farmers are able to obtain 15-30 day credit from feed suppliers. Hotels and supermarkets usually purchase from sources that allow them to pay within 30 days of delivery, but smaller wholesalers/retailers normally have to pay cash. There were no reports of forward contracting in which the purchaser provides funding for products to be delivered at a future date.

V. Conclusions and Policy Implications:

Many of the economic development problems faced by Swaziland must be dealt with regionally because they involve economic relations with South Africa. But Swaziland needs to evaluate what it can effectively do to stimulate horticultural and poultry production if it is to expand employment in these two subsectors of agriculture. Being an importer of some fresh fruit, vegetables and poultry products means that a market exists if local production can compete in price, quality and reliability. The difficulty for Swazi producers is that South Africa supplies Swaziland with many products at competitive prices. Although Swaziland has ready access to many of the production technologies and inputs used in South Africa, transportation costs and limitations in entrepreneurial and managerial capabilities retard their adoption. Efforts must be directed at providing good support services for these two subsectors, and exploiting market niches where Swazi producers can be competetive.

The following areas should be explored for possible government action, and some may be appropriate for action by the private sector and/or donor assistance.

1. Provision of Public Goods

The government needs to concentrate on providing those public goods that clearly fall within the public sector and are helpful to all producers within the subsectors. The primary areas for government action are the following:

- **Research and extension**. Research is required to identify the enterprises, specific crop varieties, and livestock and poultry breeds most appropriate for Swazi production conditions, and for which there is the best domestic and export market potential. Some research will have to be conducted in Swaziland but the country should be able to utilize much research done in South Africa and elsewhere. This information must be accurate and timely so producers develop confidence that government offices will be good sources of advice when they wish to make investment decisions or face production and marketing problems. Carefully targeted support for extension is required so that specific problems of these subsectors are addressed. Developmental activities such as the USAID CAPM

project and the U.S./Israeli poultry project need to be internalized so their continuity is assured.

- **Grades and standards**. The government should support the development and enforcement of grades and quality standards to prevent inferior quality products from entering domestic and foreign markets and creating a bad image for producers.

- **Privatization**. The government must be selective in choosing what to actually operate as a public enterprise versus simply regulating the actions of private agents. For example, perhaps the government hatchery should be leased or sold to private agents to avoid the current situation in which it sits idle because government funds are unavailable to acquire a new breeding flock.

- **NAMBOARD**. The government needs to carefully assess the recommendations to be made in the Coopers & Lybrand report contracted by NAMBOARD. The functions and operations of the Swaziland Fresh Produce Market may need to be restructured so it can more effectively assist the marketing of fresh fruits and vegetables. Furthermore, NAMBOARD itself may have to be redesigned so it is assigned a mission more consistent with its capacity. Currently it operates more as a taxing body than as an effective agency for trade regulation.

2. Special Studies and Training

Some special studies should be sponsored or conducted by the government to clarify specific issues important to the horticultural and poultry subsectors.

- **Enterprise returns**. Analysis is incomplete about the returns that have been or can be expected from certain enterprises. For example, there is limited good data for use in making robust estimates about what farmers can actually earn by participating in joint processsing and marketing of vegetables as is being attempted in the CAPM project. There are no good analyses of the possible returns to be earned from various sizes of poultry operations. Poultry production in South Africa and elsewhere suggest there are large economies of scale. However, small scale cooperative operations, such as the Shibani cooperative, may achieve good returns by combining centralized feed purchasing with individual small flock production units. A franchisable egg production system might be developed that the private sector could duplicate wherever appropriate niche markets exist.

- **Subcontracting and outgrower schemes**. A study is needed to clarify the possibilities and constraints for the greater use of subcontracting and outgrower schemes in these two subsectors. They combine the advantages of large farmer expertise and access to markets with small farmer labor and land. The creditworthiness of small farmer subcontractors is often enhanced because of their assured access to

markets. This study should identify if there are ways for the government to facilitate the greater use of these production systems. The reasons for the inability of the CAPM project to identify a contractor to link with the project farmers need to be carefuly examined in this study.

- **Management training**. The lack of good management was consistently identified in our interviews as one of the chief constraints of Swazi agriculture. Additional management training could be an important contribution made by the government. This training might be particularly effective for persons entering into outgrowing schemes, and might influence large producers to select outgrower systems rather than use hired labor to expand their own production.

3. Stimulating Investment in the Subsectors

- **One-stop investment center**. Much of the equity capital and expertise required for large integrated poultry production systems must come from foreign sources. Swaziland needs a one-stop investment center to facilitate investments and attract foreign investors. Attracting investment is increasingly competitive and many countries are developing one-stop investment centers to improve their chances of success. This is especially important with the improvement of the image of South Africa.

- **Project assistance**. The best alternative for increasing foreign investments in horticulture and poultry will likely be through encouraging South African firms to set up subsidiary operations and joint ventures in Swaziland. A second alternative is to encourage local medium-sized entrepreneurs, many of whom will probably be white farmers with land and other resources, to develop outgrower and contracting schemes for horticulture and poultry. Either alternative will require assisting individual firms to resolve production and marketing problems. USAID funded projects, such as EPADU in Uganda and KEDS in Kenya, offer ideas about how the private sector can be assisted to expand horticultural exports.

4. Formal Sector Lending

The formal banking system must be cautious about lending to these two subsectors because of the high transaction costs and risks involved. Three strategies should be pursued to make formal lending more viable.

- **Outgrower schemes**. If contract grower schemes can be expanded so that small farmers are linked with large farmers and/or marketing agents, lenders may be naturally inclined to lend to small farmers because of their improved access to markets.

- **Small scale poultry cooperatives**. If detailed analysis of the Shibani Cooperative demonstrates its financial viability, this scheme might be replicated throughout the country wherever a large enough niche market exists. Lenders might find that the risk of lending in this type of scheme is reduced enough so one commercial bank might make long term loans for the buildings and equipment, and the SBGT or another lender might make working capital loans for the cooperative and the individual members. SBGT or other lenders might also be able to develop attractive lease/purchase programs for simple equipment, machinery and vehicles for which there is a strong second-hand market.

- **Small scale slaughtering plant**. The Development Bank of Southern Africa has provided seed capital for a South African NGO to experiment with designing a small scale poultry slaughtering plant to be prefabricated in a used sea freight container, then installing it in a market town where the current volume of slaughter may make it feasible to upgrade to a more modern processing plant. If this design proves to be financially sound, it might be copied in Swaziland as a type of agribusiness that the SBGT or another lender might find attractive to finance.

5. Producer Associations

At some point in the evolution of these two suscetors, producer associations may be useful. Formal or informal associations of farmers could assist with group purchasing of inputs in bulk, negotiating marketing contracts, advertising their products, buying and using machinery and equipment, and sharing costs such as veterinary services. Secondly, such associations could work on behalf of producers to assure quality of production.

6. Investments in Human Capital

A complaint frequently reported in our interviews was the limited managerial capacity in the country. The documents reviewed also describe the country's lack of investment in human capital. This is probably the country's greatest long-term problem and must be addressed because it influences the possibility of successfully competing in any subsector. Borrowers from financial institutions often resist training because they perceive that their primary need is a loan. Yet a borrower may receive greater long-term benefits from the training provided by a lending institution than from loans.

IMPORT SUBSTITUTION AND EXPORT PROMOTION: PROSPECTS FOR THE HORTICULTURAL AND POULTRY SUBSECTORS IN SWAZILAND

by

Richard L. Meyer and Geetha Nagarajan

I. Introduction

Swaziland is a landlocked country in Southern Africa with an area of 17,360 square kilometers supporting a population of 0.8 million. GDP per capita income is estimated at US $827 and the annual inflation rate is 8.8%. However, recent changes in South Africa and recession in the region have significantly affected the Swaziland economy. For the first time since independence, the country experienced a budget deficit beginning in 1993, and the real annual GDP growth rate has declined from 2.1 in the 1987-1991 period to -1.9 in the 1992-1993 period[1] (Union Bank, 1993). The economy is market oriented and heavily based on agricultural and forestry exports, remittances and customs revenues.

The country is not self-sufficient in food production. The average annual growth rate in the food self-sufficiency ratio was reported to be -0.5 for the period 1988-1992. This is reflected in the country's position as a net importer of major food commodities including poultry and horticultural products. Nearly 90% of the fruits, vegetables and poultry products consumed are imported from South Africa. A total of 2,668 tons of eggs (value: E 2.1 million) and 3,048 tons of frozen chicken (value: E16.6 million) were imported into Swaziland in 1992 from South Africa (NAMBOARD, 1992).[2] A net total of 21.3 thousand metric tons (value: E5.1 million) of fresh fruits and vegetables were imported for local consumption in 1992.[3] The main staple of maize has also been imported due to drought and rising population. Indeed, food and live animals account for 18% of the total officially registered volume of imports into the country.

Two reasons contribute to the country's dependence on South Africa: (i) faced with an embargo on its trade, South Africa is alleged to have dumped relatively cheap, good quality food products into Swaziland thereby making Swazi products uncompetitive, and (ii) there are few comparative advantages in producing most products in Swaziland, and the lack of infrastructure

---

[1] Based on 1985 consumer price index.

[2] The Emalagini is the local currency and is on par with the South African Rand. The current exchange is about US$ 1.00 = E3.52.

[3] A total of 21.9 thousand metric tons were reported to be imported into Swaziland but about 0.6 thousand metric tons were reported to be reexported to Mozambique and South Africa.

facilities and management skills inhibit production on a large scale to meet local demand. However, Swaziland is a net exporter of citrus products. The exports of fresh and canned citrus fruits have been estimated at E91.1 million accounting for 5.8% of the total exports from the country in 1991. Sugar remains the major export earner (31% of total export earnings) followed by wood pulp (15% of total). Although the ratio of debt service to export earnings declined from 7.15% in 1990 to 3.17% in 1991, the trade deficit tripled from E86 million in 1990 to E257 million in 1992 (Union Bank, 1993).

With an expanding labor force growing at the rate of 2.4% per year and annual population growth of 3.5%, the country is concerned about the need to create employment opportunities. Agriculture is by far the major sector as it provides 34% of the formal sector employment, with the private sector providing 68% of the total agricultural sector employment. Private commercial farms on Title Deed Lands (TDL) provide employment for 25,000 of the total 75,000 formal sector employees. It is estimated that the demand for formal sector employment will increase from 75,000 in 1991 to 82,000 by 1995 and the private commercial farms will be able to increase their demand for labor from 25,000 to 40,000. Formal employment in the public sector, however, has stagnated and recorded a negative growth rate (Noman, 1993; Duncan, 1987). Therefore, the formal sector, both private and public, has been unable to create adequate employment so the informal sector has filled the gap. Furthermore, demand for Swazi workers in South African mines has declined from 20,000 in 1988 to 17,000 in 1990. The potential decline in the industrial base due to the possible shift of several multinational companies from Swaziland to South Africa would place an even greater burden on employment creation in the nonformal agricultural sector, in small businesses and in self-employment.

Within agriculture, crop and livestock sales account for only 12 and 26%, respectively, of total cash and inkind income of rural households; the majority of family income has been derived from remittances and non-farm occupations (Duncan, 1987). Small farmer horticultural crops and poultry production have traditionally been considered as low income and nonformal agricultural enterprises. But with the growing economic distress in the country, it is imperative to study the potential of these two subsectors to contribute to employment creation and to a reduction in the balance of payment problem. These two subsectors are particularly important because of the large employment and income generating opportunities they may offer for women. The country enjoys favorable agricultural production conditions for growing many sub-tropical and temperate horticultural products and for producing disease free poultry. Production technology and inputs can be easily imported from neighboring South Africa. These subsectors, therefore, have the potential to effectively substitute for imports to serve the domestic markets and, to a lesser extent, export to neighboring African countries. But developing production and marketing systems for these two subsectors with economic returns that are attractive compared to non-farm employment represents a formidable challenge for several reasons that will be discussed later.

This study is part of a series of case studies conducted by The Ohio State University through a project with the African Bureau, USAID, Washington. It summarizes the marketing and financial strategies used by the various agents operating in the horticultural and poultry

subsectors in Swaziland. The prospects for these subsectors to effectively substitute for imports to service domestic markets are discussed and the policy implications are identified. A modified subsector framework was followed in the study to examine the commodity and financial flows that link producers with consumers through various marketing agents (Nagarajan and Meyer, 1994). The methodology was limited to reviewing the studies already available, and supplementing them with interviews conducted during June and July 1994 with key participants in the subsectors.[4] The interviewees included several exporters, wholesalers, retailers, commission agents, producers and hotels/restaurants that purchase large volumes of horticultural and poultry products, and agents who provide financial, transportation and other support services including market information. The major fresh produce markets in Pretoria and Durban were visited to collect information from South African exporters/importers to Swaziland. In addition, the agents dealing with the Indian ethnic market in Durban were interviewed to assess the potential for expanding Swaziland exports of tomatoes and other Asian vegetables into that market, especially during the June to September production off-season in South Africa.

The next section of the paper discusses the implications for Swaziland of being located adjacent to a large and economically powerful neighbor, South Africa. This is followed by an analysis of the production and marketing systems for the horticultural and poultry subsectors, and an examination of their ability to serve alternate markets. Financial services available for the two subsectors and policy implications conclude the paper.

II. The Bane and Blessing of a Small Country with a Large Neighbor

Many developing nations have a natural trade barrier in the form of high transportation and transaction costs which constrain their ability to sell in distant markets, but also serve as a form of protection against more efficient foreign competitors. Swaziland, however, has a more complicated situation. First, it faces the problem of competition which is typical of a small developing country located adjacent to a large, more developed neighbor. Second, by being part of a regional economic grouping, the South African Customs Union (SACU) and the Common Monitory Authority (CMA), it follows regional monetary and trade policies that have provided some protection from non-regional producers. This combination of circumstances means that the country's producers receive some protection from cheaper foreign suppliers, but they must compete with South African producers many of whom benefitted from a variety of incentives

---

[4] The analysis presented here represents the authors' best professional judgements based on the analysis conducted during this brief period. The CAPM project of USAID has been the subject of several in-depth studies. The most recent one was conducted in mid-1993 over a two month period. The present project strategy of working through farmer cooperatives was developed at that time. Our analysis emphasizes the possible role of contract farming in resolving horticultural production and marketing problems. That approach was attempted but abandoned by the project when no producer or exporter was located to contract with local small producers.

and subsidies. The economic challenge this poses for Swazi producers is briefly discussed in this section to demonstrate how this situation at once provides opportunities for and constrains the development of the horticultural and poultry subsectors in Swaziland. It also affects the policies that can be effectively employed in Swaziland to stimulate development.

1. Product Pricing in South Africa and Its Impact on Swaziland

The total production of most agricultural commodities in Swaziland is small relative to the total size of the South African market. Likewise, the amount of any product that Swaziland purchases from South Africa tends to be fairly small relative to total South African production. Therefore, with the exception of certain commodities during specific times of the year, Swaziland is largely a price taker of prices formed in South Africa. This implies that the aggregate sales or purchases of Swazi producers and consumers are too small to materially influence South African prices for products traded in fairly competitive markets. For this reason, the import prices in Swaziland for many South African products can be expected to be close to South African wholesale prices plus the cost of transportation and handling to get the products to Swaziland. Likewise, the prices received by Swazi exporters are likely to be close to the wholesale price in South Africa minus transportation and handling costs to get the products to the South African markets.

The prices that are formed in South African markets are subject to a variety of government interventions. Since the 1930s, the government has intervened extensively in agricultural pricing and marketing. The original Marketing Act of 1937, and subsequent legislation, provided for statutory marketing schemes, managed by control boards, designed to regulate the domestic market, to control imports and exports, to promote demand, and to support research (van Zyl). Twenty-two control boards have been established with twenty still in existence. A single-channel fixed price scheme, for example, has been used to exercise monopoly powers with a system of pre-announced prices for maize. Maize is the country's most important field and food crop, and one of the most important intermediate inputs for the livestock and poultry industry. The country also supplies a significant amount of the maize needs of Botswana, Lesotho, Namibia, and Swaziland. As another example, eggs were included in surplus-removal schemes in which the board intervenes to maintain minimum prices. Fresh produce, on the other hand, has been subject to relatively less regulation, except that much of the market is managed by 15 National Fresh Produce Markets (NFPMs) operated by local municipalities. Although chain stores and wholesalers increasingly purchase products directly from producers, the NFPMs are still important for price determination.

These policies, coupled with import substitution industrialization for industry, have produced a number of positive results. For example, they are credited with helping develop a modern production system backed up with a relatively sophisticated agricultural research capacity. Production has grown and some products, such as citrus, have been able to successfully penetrate foreign markets. In addition, the country has developed a fairly good transport and communication system which help make it competitive in international markets. However, these policies employed a large amount of subsidies and introduced great distortions into the agricultural econ-

omy. It is now recognized that the efforts to try to reach food self-sufficiency resulted in huge budgetary costs, and small farm agriculture was largely ignored in the process. Cheap credit, sometimes at negative interest rates, and liberal tax breaks, which allowed capital equipment to be written off in the year of purchase, contributed to an expansion in farm size, to a substitution of capital for labor, and to high levels of farm indebtedness (Thirtle, von Bach and van Zyl). The resulting international uncompetitiveness of agriculture led to a number of reforms beginning in the early 1980s including a reduction in the use of price controls, a shift to more market-based pricing systems, the removal of some subsidies, major debt write-offs for farmers and cooperatives, and the replacement of some quantitative controls on trade with tariffs (van Zyl). Additional policy changes are being considered, especially in light of the GATT agreement, which will likely push the country further in the direction of a market orientation.

2. Advantages and Disadvantages for Swazi Agricultural Producers

These developments represent a mixed blessing for African states, such as Swaziland, located adjacent to South Africa. On the one hand, they enjoy some of the benefits of a modern economy located close by when they engage in trade and technological exchange. Furthermore, by being a member of the regional trade group, they receive some protection from lower cost foreign producers. Swazi consumers with sufficient purchasing power have become accustomed to purchasing high quality South African products in the local markets even though consumer prices for many products would likely have been even lower without government intervention in South African agriculture. On the other hand, the negative implication for Swazi agricultural producers is that they face a South African production system that was built up with the benefit of heavy protection and large subsidies. This system now represents formidable competition for most products. Small farmers who lack good management skills and who are too small to reap the benefits of economies of scale are particularly disadvantaged in attempting to compete with the larger South African firms.

The fact that Swaziland is a price taker relative to a large neighboring market presents both advantages and disadvantages to its producers. On the one hand, Swazi farmers have access to South African livestock and poultry feeds that are becoming increasingly competitive because of policy changes. Prices in Swaziland for yellow corn-based poultry feeds, for example, are probably less than would prevail if the country tried to become self-sufficient in the production of these feeds. Furthermore, technological borrowing in the form of access to new seed varieties, fertilizers, improved strains of poultry and livestock, veterinary services, etc. is more feasible for Swazi farmers than for farmers in other African countries located more distant from modern economies.

On the other hand, Swazi farmers are constrained to produce products for the domestic market that will effectively compete in terms of both price and quality with South African imports. Swaziland is unlike some other African countries where a large domestic demand exists for locally produced lower quality products because high transportation costs naturally restrain the importation of better quality foreign products. There have also been allegations that Swazi producers suffer damages because South Africa dumps surplus products into the Swazi market

during periods of oversupply in order to firm up their domestic price levels. Furthermore, Swazi farmers must try to produce at low enough costs for export to South Africa so they can still make a profit after subtracting their transportation costs from South African wholesale prices. This means that Swazi vegetable producers, for example, are forced to be about as efficient as their South African counterparts when they try to export during low price, peak South African production periods, or they must search for niche markets when prices rise due to low South African production. This, of course, is the strategy followed by Swazi farmers who export tomatoes and cabbages during the South African off season. When they succeed in penetrating these niches, the Swazi producers have the advantage of not seriously reducing the seasonally higher prices as long as their total exports are small relative to total South African supplies.

3. Implications for Swazi Producers

Four important implications for Swazi producers emerge from this analysis. First, the technology and inputs appropriate for import substitution production of many products in Swaziland are available as close by as South Africa, and they have to be adopted by Swazi producers if they hope to be competitive with South African production. Second, strong management and organizational skills are crucial for Swazi producers so they can adopt these modern production systems. This presents a challenge especially for small farmers with limited managerial and technical skills. Third, the low cost high quality demands of domestic markets imply that there is less opportunity for "learning by doing" in which Swazi producers initially supply lower quality domestic markets, then move into increasingly competitive export markets after they have effectively reduced costs and improved quality. Fourth, Swazi producers need to carefully assess possible niche markets in which they are somewhat protected from lower cost foreign producers. For the horticultural subsector, these niches may be most logically found during the winter season when many South African producing regions are affected by cold temperatures.

4. Role of the National Agricultural Marketing Board (NAMBOARD)

The analysis presented above implicitly assumed relatively free trade between South Africa and Swaziland. The creation of NAMBOARD with the task of imposing levies and import and export quotas in Swaziland represents an attempt by the country to restrict free trade for the benefit of producers and consumers. In theory, such trade restrictions would tend to shelter Swazi producers from lower cost South African production while assuring consumers of a supply of reasonably priced, high quality imported products.

There are two reasons for which the existence of NAMBOARD was ignored in this analysis. First, it is unclear how much any nation will be permitted to legally interfere in free trade in the future under the new GATT rules. Second, it is unclear how successful a NAMBOARD type of intervention can ever be in a Swaziland situation, especially considering horticultural products. The first problem is that food products generally face an inelastic demand which means that relatively small changes in supply are translated into relatively large changes in price. Second, it is quite difficult to accurately predict future domestic production of many fresh fruit and vegetable crops whose yields are highly dependant on variable climatic

conditions. Third, the demand for these products has been and will likely continue to be affected by irregular patterns of purchases for export to Mozambique. This combination of irregularity in supply and demand complicates the technical task of forecasting the correct level of levies and quotas required to produce the desired level of trade protection on a product-by-product basis. It is not surprising that in practice there would be frequent undershooting and overshooting of projections leading to more variable and damaging price patterns than might have occurred without the intervention.

Therefore, the observed pattern of quite fixed levies over time for all products is understandable from an administrative perspective, but this has the effect of converting the levies into largely a taxing mechanism rather than a flexible instrument to protect domestic producers. The import and export quotas also tend to operate more as a taxing mechanism than as effective trade protection.

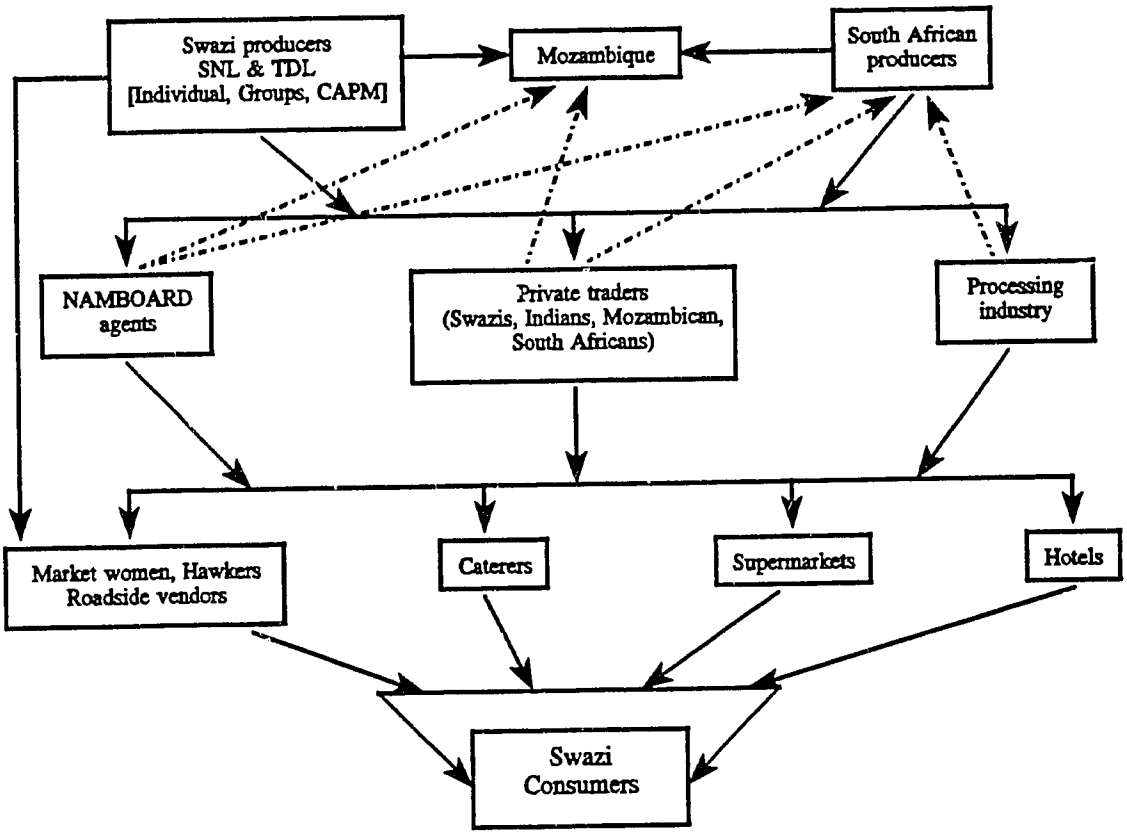
III. The Horticultural Subsector: Participants, Marketing Structure, and Prospects for Expansion

1. Participants in the Subsector

The major participants in the horticultural subsector include producers, consumers and agents providing marketing and support services. On the one hand, there has been fairly free trade with South Africa so good quality products are easily imported from South Africa at prices below what they can be produced locally. On the other hand, the civil war in Mozambique and frost during winter months in South Africa have resulted in some exports from Swaziland. The horticultural subsector, therefore, is composed primarily of domestic and intra-regional participants. A schematic diagram explaining the flow of commodities through various channels in the horticultural subsector is presented in Figure 1.

The production system of horticultural products is bi-modal consisting of a few large commercial farms and several small farms. In general, the participants specialize in only one activity such as production, marketing or exporting. Few farms are totally or partially integrated to perform both production and marketing functions. The majority of the transactions are effected through spot market transactions, and to a lesser extent through market specification contractual arrangements. The lack of integrated firms implies that the horticultural sector in Swaziland is still in its infancy compared to other major exporting countries. Servicing export markets often requires a sophisticated marketing structure with joint ventures and vertically integrated production and marketing operations.

Figure 1. Flow of Commodities in the Horticultural Subsector in Swaziland.



Notes: SNL: Swaziland National Land; TDL: Title Deed Lands; CAPM: Commercial Agricultural Production and Marketing; NAMBOARD: National Agricultural Marketing Board.

A. Producers

The horticultural products are sourced from several types of producers, small and large, both domestic and foreign (see Fig. 1). While domestic producers are generally small farmers cultivating Swazi National Lands (SNL), there also exist several large commercial farms operating Title Deed Lands (TDL) in peri-urban areas.[5] Whereas crops such as cotton, maize

[5] Land in Swaziland is divided into two categories: Swazi National Land (SNL) and Title Deed Land (TDL). SNL accounts for 56% of the land area in the country accommodating 80% of the population that grows subsistence crops, but contributes only 20.3% to agricultural GDP. Ownership of SNL rests with the King who holds it in trust for the nation. There is no security

and relatively low value horticultural crops including tomatoes and cabbages are grown on SNL, commercial crops including sugarcane, pineapples, cotton and citrus are mainly grown on TDL. An important reason for the difference in cropping patterns is due to the fact that the majority of the TDL lands are irrigated while SNL lands are usually rainfed. Community gardens, usually organized by NGOs for women, produce low value horticultural crops to meet subsistence needs, but they are not very common. The majority of the farmers are small individual growers without contractual tie ups with large growers or marketing agents. Of late, however, with the initiation of the Commercial Agricultural Production and Marketing (CAPM) project, small farmers are beginning to own and operate two packhouses that grade and pack tomatoes, cabbages, green peppers, etc., largely for the winter markets in South Africa and the supermarkets in Swaziland. In addition, five large white Swazi farmers are contracted by a South African exporter to grow minivegetables (baby carrots, baby corn, small yellow tomatoes, baby squash, etc.) for European markets. This contractual arrangement only assures a market for the products grown and does not provide inputs or technical advice to the farmers.

Swaziland is generally endowed with good soil, weather and irrigation facilities to produce horticultural products, but total production is not adequate to meet the quantity and quality demanded in the domestic markets. Swaziland is self-sufficient only in citrus fruits, except for lemons, and tomatoes and cabbages in the winter months. There are limited data on the production of horticultural crops other than citrus in Swaziland. About four million cartons of citrus fruit are produced annually by seven estates in Swaziland (Citrus Board, 1993). Their activities are monitored by the Swaziland Citrus Board. About 60% of the citrus fruits are exported to Europe through the South African Citrus Board. While 10% of the other horticultural products consumed in the country are produced locally, 90% are imported from South Africa. Tomatoes and cabbages are in excess supply in Swaziland during the winter months of June-September and NAMBOARD closes the country's borders on these commodities at this time. It is important to note that production in South Africa of tomatoes and cabbages is low in these winter months due to cold weather and occasional heavy frost. Figures 2 to 5 show that prices in the Pretoria wholesale markets are high during these winter months due to limited local production of cabbages, butternut squash, green peppers and sweet corn. This seasonality pattern offers a window of opportunity for Swaziland to export to regional markets in South Africa during the winter season.

---

of tenure but all Swazis are entitled to an allocation of SNL as a birthright. TDL is held in perpetuity and may be inherited, donated, and transacted in land markets. Nearly 45% of the land in the country is under TDL. These TDL are usually owned and operated by foreigners. Foreigners can own and operate land but the transactions must be approved by the land control board. To date, the government has not intervened in any land transaction (Coopers and Lybrand, 1993).

B. Consumers

The domestic and intra-regional markets are the primary consumers for the low value horticultural products grown in Swaziland. The domestic consumers include supermarkets, hotels, restaurants, government institutions, the canning industry, and households (see Fig. 1).

The major supermarkets including OK, however, obtain 90% of their fresh produce from South Africa, while the smaller ones obtain about 50% from Swaziland. Large companies such as Vegpack and Prodcure in South Africa regularly supply about 85% of the produce sold in large supermarkets such as OK. Some NAMBOARD agents, such as Gastaldis, sell prepacked and bar coded produce to the supermarkets. The supermarkets usually pay their suppliers two to four weeks after delivery. Several of the large hotels/restaurants also buy the majority of their produce from South Africa on an immediate cash payment basis. Nonetheless, medium hotels/restaurants obtain about 60% of their produce on suppliers credit directly from Swazi producers including NGO gardens and large farmers. Small hotels tend to buy 80-90% of their requirements from local Swazi traders for cash on a first-come first-served basis. Swazican, the canning company, purchases citrus only from Swaziland but imports other fruits from South Africa. Government institutions are usually supplied by large Swazi farmers and catering companies.

Products such as citrus and minivegetables are exported to European markets through South Africa. However, low value crops such as tomatoes, cabbages, carrots, lettuce and avocadoes are exported to Mozambique and South Africa. Our interviews in the Pretoria and Durban markets indicate that there is a large demand for fresh fruits and vegetables in South Africa. For example, it is estimated that about 500 tons/month of tomatoes are consumed in Durban. While South African producers have the capacity to produce the majority of the products consumed, there is an opportunity for Swazi exports to South Africa during the winter months.[6] The Swazis sell through agents in the South African fresh produce markets and/or private wholesale agents including Indian traders.

---

[6] The Indian traders interviewed in Durban indicated that the 'Nema' variety of tomatoes is consumed by the local Indian ethnic community due only to its low price and high shelf-life. In general, however, the Indians prefer 'Roma' and round tomatoes. Indeed, the demand for 'Nema' has been estimated at 60 tons/month (about only 12% of the total demand for tomatoes).

FIGURE 2. CABBAGE PRICES - PRETORIA WHOLESALE MARKET
Average 1991-1992

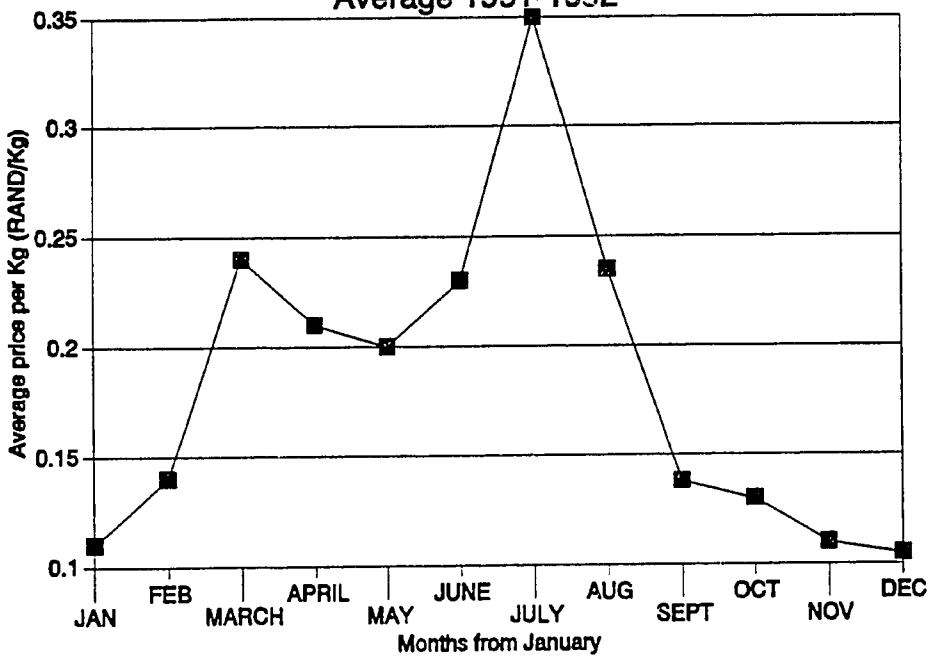
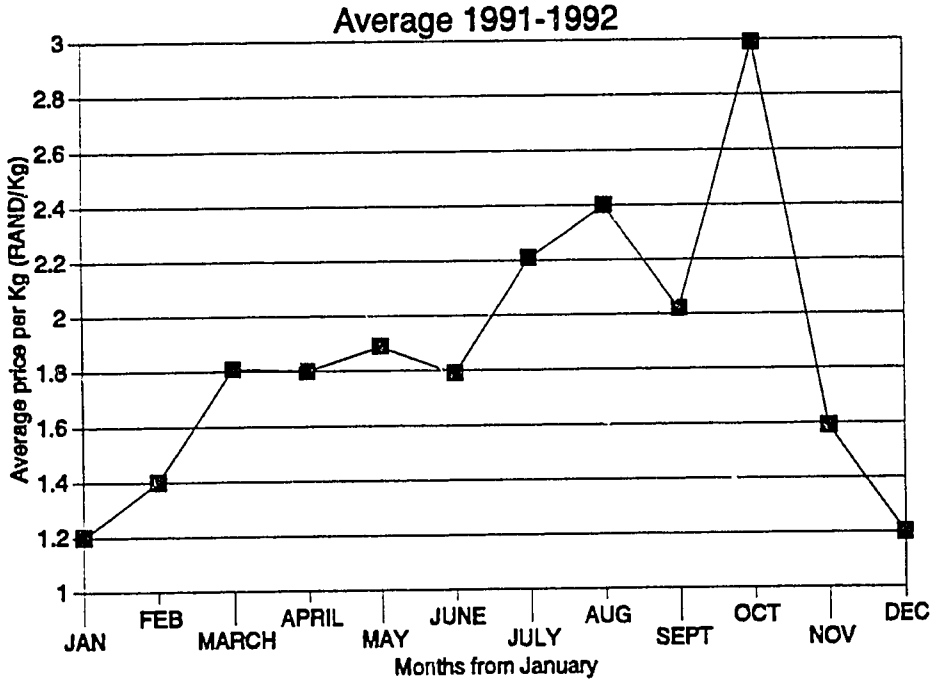


FIGURE 3. GREEN PEPPER PRICES - PRETORIA WHOLESALE MARKET
Average 1991-1992



Source: Mark Wood, Consultant. Original source was the Pretoria Market Statistics.

FIGURE 4. BUTTERNUT PRICES - PRETORIA WHOLESALE MARKET
Average 1991-1992

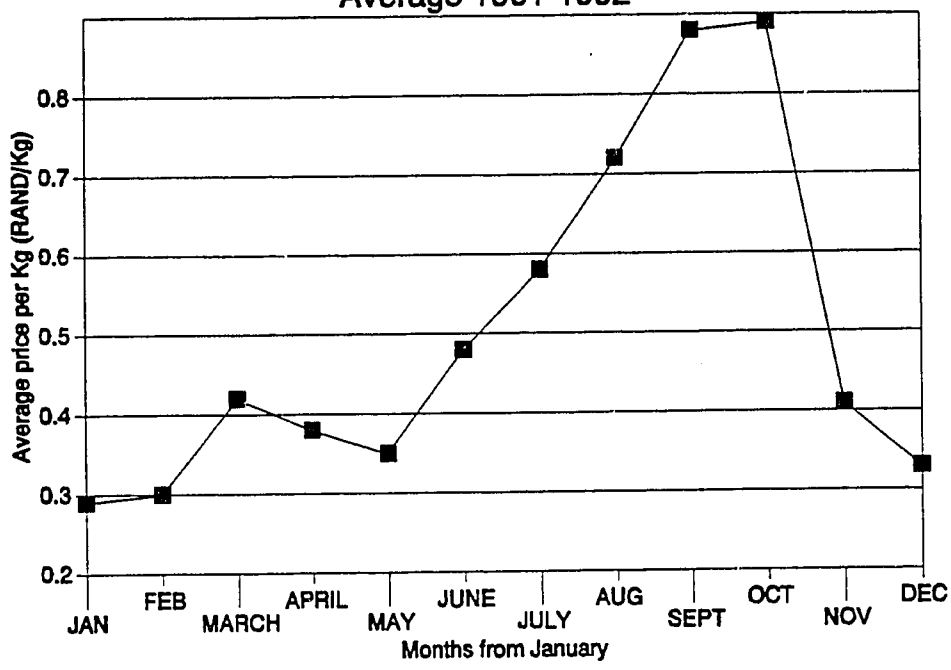
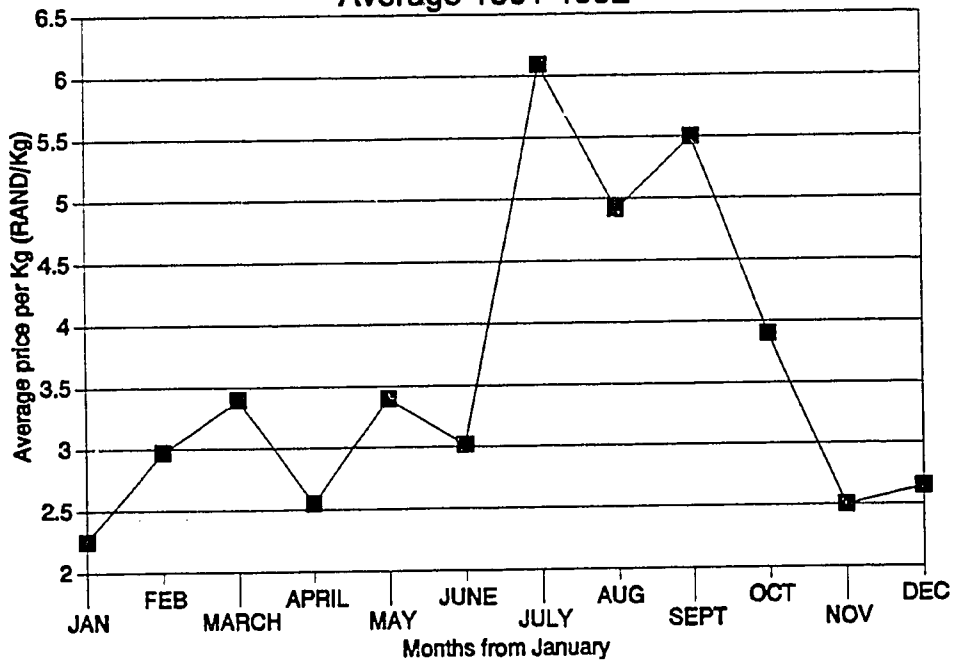


FIGURE 5. SWEETCORN PRICES - PRETORIA WHOLESALE MARKET
Average 1991-1992



Source: Mark Wood, Consultant. Original source was the Pretoria Market Statistics

C. Marketing agents

Marketing agents including wholesalers, retailers and commission agents function in several municipal markets and in the Swaziland Fresh Produce Market (SFPM) to facilitate the smooth flow of commodities from several sources to local wholesale and retail consumers.[6] In general, the marketing functions are carried out by specialized marketing agents rather than by the producers themselves.

The domestic consumers are serviced by several retailers, wholesalers and hawkers who function within municipal markets, fresh produce markets, supermarkets, green grocers and open air markets. These traders purchase from both Swazi and South African producers. While some traders purchase directly from producers, others buy from the fresh produce markets located in the two countries. There are also some South African wholesalers who bring produce into Swaziland and sell it off trucks in the parking lots of the major municipal markets. The majority of the transactions at both the wholesale and retail levels are conducted on an immediate cash payment basis. Supplier's credit is limited to very short periods to only a few long term customers of wholesalers and retailers.

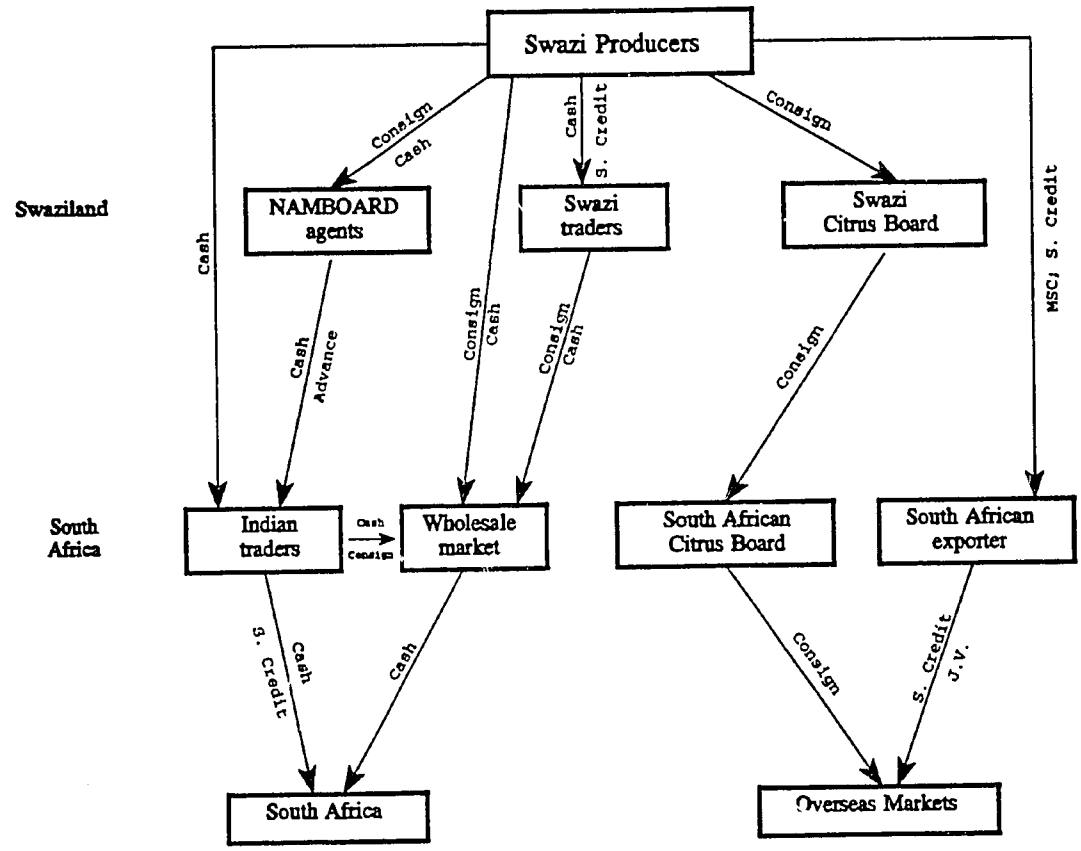
Exports to intra-regional markets in Mozambique and South Africa are conducted through several wholesalers who regularly visit the SFPM to buy from the four commission agents operating on the market floor. These commission agents buy their products from local producers and from South Africa. Also, several individual traders, primarily Indians from South Africa, directly purchase low value products for cash from Swazi producers for export. This is especially significant for tomatoes and cabbages during the winter months of June-September. Several Swazi producers also consign their produce either directly or through Swazi traders to the wholesale markets in South Africa (see Figs. 1 and 6).

The exportation of fresh citrus products to Europe is done through the Swazi Citrus Board, an affiliate of the South African Citrus Board, while citrus concentrates are exported through the canning company, Swazican. The exports of minivegetables to Europe, which is a recent activity, is done primarily through a South African commission agent (see Fig. 6). Five white Swazis function as outgrowers for this South African exporter who provides them with an assured market and information about product specifications demanded in the European markets. The producers, in turn, contract with a local consulting firm to acquire the technical assistance necessary to grow minivegetables to suit European market specifications. The producers usually consign their products to the agent. Although this is a promising marketing opportunity to be explored, it is highly competitive and the records of one producer suggested that the initial profits have been modest.

---

[6] Our interviews indicated that while there are differences in direct access to some marketing agents, there is little variation in the marketing agents used by TDL and SNL farmers.

Figure 6. Flow of Produce and Finance for Swazi Horticultural Produce in Regional and Overseas Markets.



Notes: S. Credit: Supplier's Credit; MSC: Market Specification Contract; JV: Joint Ventures; NAMBOARD: National Marketing Board.

D. Support Service Agents and Support Services

a. NAMBOARD

The National Agricultural Marketing Board (NAMBOARD) was established in 1986 to provide Swazi farmers with improved marketing facilities to achieve food self-sufficiency. NAMBOARD registers wholesale distributors, importers and exporters, and facilitates the storage, distribution and sale of selected agricultural products including fresh fruits, fresh vegetables and poultry. The Board, however, is not very efficient in tracking exports from and imports into Swaziland, and this is reflected in the limited information available on exports and imports. Although NAMBOARD functions as a major tax collection mechanism, the collection

of levies on imports is usually based on undervalued declarations made by the importers to the customs department.

Since 1987, NAMBOARD has also operated the Swaziland Fresh Produce Market (SFPM) which provides a market place for buyers and sellers of fresh fruits and vegetables.[8] The market agents (currently four) are appointed by the Board to conduct the trading. They follow a dual trading system: they buy and sell products obtained at the farm gate from farmers, and they buy from farmers who deliver their produce to SFPM for sale on consignment. The agents obtain products from both Swazi and South African producers. Indeed, some NAMBOARD agents are directly buying produce from CAPM farmers. The marketing agents charge a commission of 5 to 7.5% depending on product perishability. The SFPM collects a market fee of 5% on the value of all produce sold on the floor to cover its administrative and operational costs. SFPM operates cold storage rooms of 510 m^3 in total size, a banana ripening facility for 60 tons per week, and a small packhouse facility.[9] These facilities are available for lease by private entrepreneurs. Several Mozambican traders frequent the market to purchase products for sale in Maputo.

Some small farmers regard SFPM as a useful institution, but the consignment system of marketing has been criticized by many. While the NAMBOARD agents pay cash to South African producers, they insist on a consignment 'sale or return' method for Swazi producers. The consignment payment system shifts all market risks to the producers, causes delays and complicates the payment procedure. Several of the Swazi producers, therefore, prefer selling to Indian and Swazi traders instead of to NAMBOARD agents.[10] However, the system does provide a market of last resort for farmers' produce which cannot be sold for cash elsewhere. When market prices fluctuate, the system may give higher prices over the contracted set price. Although the total horticultural production in Swaziland was estimated at 5.2 thousand metric tons, only 1.2 tons were traded through SFPM in 1992.

---

[8] SFPM was officially renamed by the King in October 1994 as the "Ncebeni Produce Market."

[9] SFPM now operates a farm input supply store, and a seedling nursery. They are trying to be more multipurpose. Indeed, talks are underway with the Egyptian government to establish a vegetable cannery unit.

[10] It was reported in 1988 that about 150-200 small scale Swazi private traders functioned as major market outlets for Swazi producers. The survey estimates that these private traders purchased 86% of the local produce directly from the farms by paying cash (Food Studies Group, Oxford, 1994).

The total volume traded through SFPM is fairly large. Of the total of 27.1 thousand tons of products traded in Swaziland, SFPM accounted for 13.7 thousand metric tons.[11] Of this total, approximately 0.6 thousand metric tons were reported to be exported to Mozambique and South Africa (NAMBOARD, 1992). Although many farmers prefer fixed pricing over consignment sales, the volume of trading by Swazi farmers has increased from 1.2 thousand metric tons in 1992 to 2.3 thousand metric tons in 1993. Total SFPM throughput increased from 13.7 to 15.9 thousand metric tons from 1992 to 1993 (SFPM, 1994).

SFPM does not insist on any quality/grading requirements for products traded on its floor. This reduces the incentives for producers to bring good quality products to the market. The cold storage facility is not augmented by humidifiers/chillers to prolong the storage life of the products. Since the market handles a small amount of local production, it depends heavily on South African imports to achieve a critical mass to break-even. For example, of the total throughput in 1993, only 14.5% came from Swazi producers; the rest was imported from South Africa. The question of incentives for routing local production through SFPM needs to be addressed if it is to achieve sustainability in the long run.

Although SFPM resembles the South African National Fresh Produce Markets found in South Africa, there is considerable room for improvements. These improvements are especially important if SFPM decides to continue the consignment method of sales. For example, the efficient payment system followed in Pretoria and Durban Fresh Produce Markets could be replicated in SFPM. Such a system has been considered at SFPM, but currently there are no funds to procure the equipment and hire a computer specialist to operate the system.

b. CAPM Project[12]

The CAPM project was designed by USAID in 1991 to stimulate small farm commercial horticultural producers by identifying private marketing firms that could vertically integrate their operations to provide farmers with technical services and reliable marketing outlets. A mismatch in the interests between the private firms and the small farmers, insufficient existing business links that Swazi firms had with South African wholesalers, lack of programmed production, drought, and a lack of marketing firms capable of integrating their operations led to the failure of this approach. In 1993, following an in-depth study, the project strategy shifted from developing vertically integrated marketing firms to the development of the marketing capabilities of farmer organizations. The modified objectives now include: (i) developing farmer organizations that are able to assist small farmers in producing and assembling quality fresh

---

[11] A total of 21.9 thousand metric tons of fresh fruits and vegetables were imported in 1992, while the total production of horticultural products in Swaziland was estimated at only 5.2 thousand metric tons.

[12] This section is based on USAID reports about the CAPM and our interviews with CAPM officials and farmers.

produce and linking them to markets, (ii) training farmers to produce quality crops to meet market demand, and to a lesser extent (iii) assisting in developing agribusinesses that provide services to small farm horticultural production and marketing.

Currently, the project targets small farmers, farmers organizations and marketing firms. The project assists farmers in three regions with assured irrigation: Northern Rural Development Area (NRDA), Vuvulane Irrigated Farms (VIF) and Siphofanene/Sitobela. Furthermore, it assists the central region in developing drip irrigation and identifying market outlets. The project farmers are required: (i) to have access to irrigated land, (ii) to be willing to grow targeted crops, and (iii) to be located close to targeted regional farmers organizations.[13] By the end of the project, CAPM will have provided approximately 230 farmers and 10 organization leaders per area with intensive training in the production and marketing of horticultural crops on a commercial basis. The majority of the CAPM farmers are SNL farmers. By the end of 1993, there were 138 farmers registered with CAPM (30% being women).[14] CAPM farmers account for about 57% of the total farmers in the areas where the project operates. However, not all land operated by CAPM farmers is devoted to growing CAPM crops. It was estimated that SNL farmers used 44% of their land for CAPM crops, while TDL farmers used only about 7%.

Training, technical assistance, business advice, a guarantee for loans made by the Swaziland Development and Savings Bank (SDSB) and assistance in sourcing production inputs are provided to farmers organizations to achieve the project objectives. The project experts also investigate and attempt to develop reliable marketing links in domestic and regional markets in close coordination with the farmers organizations. For example, in 1993, the project initially assisted about 77 small farmers spread out in a radius of about 30-40 km. by setting up a farmer operated packhouse facility in one region.[15] This and the second packhouse established in 1994 are used to grade and pack tomatoes, green peppers, cabbages and carrots for the supermarkets and SFPM. The project arranged for the transportation of prepacked products from the packhouse to the SFPM, and negotiated with market agents so products can be sold to supermarkets and South African traders. The project also arranged for input supplies, offered

---

[13] Green beans, green peppers, tomatoes, sweet corn, cabbages are targeted by CAPM. About 1,500 hectares representing 2.6% of the total land currently under irrigation in Swaziland have the potential to be included under the project. The majority of the irrigation systems were developed by several donors including IFAD and Republic of China.

[14] This includes 100 farmers covering 57 hectares in NRDA, 25 farmers cropping 37 hectares in Siphofanene/Sithobela and 13 farmers on 6 hectares in VIF.

[15] Many of the CAPM farmers continued their long-standing business relationships with Indian traders from South Africa and with Swazi traders. These traders purchased the products by paying cash immediately at the farmgate. CAPM is working on the dilemma of more less ad hoc. farmer sales to vendors versus more systematic sales through packhouses.

technical advice and linked several farmer groups to the SDSB.[16] Furthermore, a grant was provided by USAID to SBGT to develop an agribusiness advisory service that will assist in agricultural supply and service companies and potentially larger CAPM members.

The project can be commended for recognizing the difficult issues involved in the successful production and marketing of horticultural products. However, implementation has been difficult in the Swazi situation which is dominated by small farmers, the planned project beneficiaries. Therefore, the CAPM project has had mixed results. The challenge for the project lies in effectively encouraging and training farmers organizations to become efficient production and marketing agents and continue on a sustainable basis after the project ends in 1995. Mechanisms should be developed so that large farmers and private entrepreneurs can be incorporated into the program for efficient production and marketing of horticultural crops on a commercial basis. Markets for horticultural products can be created only when an economically viable crop production occurs on a consistent basis. The critical mass required to be economically viable can only be achieved through increased production. It is important to develop incentive compatible contractual arrangements so that private entrepreneurs will undertake some of the project functions in stimulating production. The entrepreneurs could be pure traders who assist small farmers to secure a market and provide them with technical assistance, or they could be large growers who contract with several small farmers to produce for a specific market. The project should aim at effectively servicing the regional markets before exploring European markets. Import substitution or export promotion activities need to be carried out on an economically viable basis and not on national self-sufficiency objectives.

c. Support services: Infrastructure and transport facilities

Total investments in public infrastructure in 1993 represented only 7.1% of the GDP (SDSB, 1993). Government research and extension support for the production of horticultural products is limited. MOAC has a small horticultural research section. Extension has six regional agents working solely with horticulture while other extension agents are generalists. Research and extension agents face problems of limited resources including transportation.

Although paved roads connect major market places, most internal transportation facilities are poor. There are occasions during the rainy months when farmers in the interior can not bring their produce to market due to washed out roads. Since Swaziland is landlocked, the majority of the produce exported to Europe needs to be airfreighted. However, the facilities available at

---

[16] Lack of access to credit was not reported by CAPM farmers to be a serious constraint compared to problems in marketing and lack of technical advice for production. Indeed, the perceived high risk associated with the production and marketing process was observed to inhibit the use of external financing more than the lack of credit supply sources (Gardner and Bielen, 1990). Indeed, CAPM farmers were glad that the project did not require them to take inputs on credit. There was a need, however, for consultation between CAPM farmers and the CAPM officials who prepared the cash flow statements for farmers applying to SDSB.

the airport do not service large cargo aircraft. On the other hand, a large fleet of trucks and an improving railway are used to transport the majority of products sold to South Africa and Mozambique. In addition, there are companies that produce good quality packaging materials used in transporting perishable products. Furthermore, through the USAID funded CAPM project, two vegetable packhouses are being operated by small farmers who grade and prepack their products for sale to supermarkets, SFPM and South African traders. The lack of critical mass, however, constrains the development of massive infrastructure facilities on an economically feasible basis. The role of finance in supporting the horticultural sector will be discussed later.

2. Prospects For Expanding and Improving the Subsector

Swaziland has several advantages that facilitate the expansion and diversification of production and the substitution of imports for certain horticultural products. But it is challenged by several constraints.

A. Advantages

a. Business environment

The Government has implemented liberal macroeconomic policies that provide some stability to the economy. Memberships in the Common Monetary Area (CMA) with South Africa, Namibia and Lesotho, and in the South African Customs Union (SACU) with South Africa, Lesotho and Botswana allow for the free flow of trade among these countries with a common currency. Exchange controls up to 15% of foreign exchange earnings apply only to the transfer of funds between Swaziland and areas outside the CMA. The government also provides investors with liberal tax holidays of up to five years from the time of establishment of the business. Few restrictions exist on the transfer of investment funds into Swaziland or on the ownership of land by foreign nationals. Although special licenses are required for foreigners to engage in agricultural activities, no restrictions exist on local equity investments or direct partnerships by Swazi nationals. A good formal banking system exists to transfer funds around the world and facilitate smooth financial transactions.

b. Climatic conditions

The sub-tropical, largely frost free climate enables the year round production of several sub-tropical fruits and vegetables. This climatic advantage is especially important during the winter months when South Africa and Lesotho are affected by frost and snow.

c. Availability of technology and skills

Although Swaziland does not have adequate skilled technicians and consultants, they are readily available from South Africa, and to a lesser extent in the University of Swaziland.

Private consulting firms are beginning to appear in Swaziland to provide technical assistance to the subsector.

d. Infrastructure

Although the infrastructure required for the efficient functioning of the subsector is relatively poor in terms of communication and transport facilities, good roads and a small railway system connect major marketing centers. Municipal markets are well organized and SFPM provides a market place, and public cold storage, ripening and packing facilities. A limited amount of matchmaking between market agents and producers/sellers is also carried out by the SFPM. In addition, good packaging materials are locally available for use in packing products for municipal markets, supermarkets and exports.

e. Market

A market for fresh fruits and vegetables exists, especially for prepacked good quality products in both Swaziland and neighboring countries. Swazi consumers, unlike consumers in many other Sub-Saharan African countries, demand and pay premium prices for good quality products. Furthermore, production inputs are readily available in local markets or from South Africa.

B. Constraints

The current marketing structure can substitute for imports and serve domestic markets and, to a lesser extent, neighboring African countries. Nonetheless, Swaziland must make major improvements if it is to better service domestic markets, and tap the potential that exists in intra-regional and European markets. Several factors limit its ability to effectively service these markets.

a. Competition

Swaziland faces strong competition from South Africa in its effort to penetrate the domestic and intra-regional fresh fruit and vegetable markets. Swazi consumers are relatively accustomed to a reliable supply of fairly inexpensive but good quality products from South Africa. It has been difficult for most Swazi producers to meet these quality requirements at competitive prices, given high production costs and several constraints.

b. Lack of infrastructure and irrigation facilities

The lack of good feeder roads that connect interior villages to major marketing centers represent the most important infrastructure constraint. Furthermore, irrigation schemes are concentrated in only a few regions. The majority of the farmers are, therefore, constrained by the lack of adequate water to sustain commercial horticultural production.

c. Thin financial markets

Formal financial services are accessible only to large farmers. While the SDSB provides subsidized loans to small farmers using group lending techniques, the program is driven by donor funds and lacks sustainability. Informal finance is not very well developed either. Forward contracts and outgrower contracts are infrequent.

d. Poor market information

Although SFPM and CAPM provide information on market prices, the availability of information about alternate market outlets, products and varieties for new markets, new technology, etc., is limited.

C. Prospects for expansion

Given the advantages and constraints faced by the subsector, significant and sustainable expansion of small farmer commercial horticultural production and marketing will require serious cooperative efforts on the part of the public and private sector to overcome the constraints. This section examines few options for expanding the horticultural subsector in Swaziland.

a. Diversification

The Swaziland Government has encouraged policies to diversify the agricultural sector since 1987. The formation of SIDC in 1987, Swazican and Coca Cola Concentrates were results of these efforts. There is room for diversification, but it is limited by several constraints including the lack of skilled personnel, a small domestic market, and difficulties in obtaining fruits and vegetables from Swaziland on a consistent basis.

i. Canning industry

Swazican is a major canning company and is currently owned largely by Swazi nationals. It processes pineapples, grapefruit, oranges, peaches and apricots into fruit juice concentrates, jams and fruit segments/slices. The company actually purchases about 8,000 tons of grapefruit and 5,000 tons of oranges from several small farmers in Swaziland, and buys occasionally from South Africa and Mozambique to overcome shortfalls. Recently, the company began experimenting with market specification contracts to purchase guavas and melons from domestic small farmers for the preparation of jams and jellies. These contracts generally provide producers with a promise of an assured market but no production inputs or technical assistance. However, the management revealed that there have been difficulties in obtaining regular supplies from Swazi farmers. In addition, farmers tend to deliver for processing rejects from other markets. They are paid in cash immediately on delivery of the products. The company grows about 50,000 tons of pineapples on its own land, and contracts production with 30 large domestic pineapple growers. Peaches and apricots are imported from South Africa. While jams are exported to South Africa, fruit juice concentrates and segments are exported to Europe.

Wholesalers in the Durban market reported that the prices of Swazican products are higher than the canned products imported from Thailand. Swazican products are sold under several major food company labels in Europe, including Libby's in the UK.

The potential exists to expand the canning industry since the facility is currently underutilized due to an irregular supply of products for processing. Increasing production would expand employment, reduce the prices of finished products due to economies of scale, and earn foreign exchange for the country. However, the problem of inconsistent supply of inexpensive good quality raw materials needs to be solved. Contractual arrangements with farmers must provide adequate incentives for them to consistently deliver good products. A more fundamental problem, however, concerns the cost of production. Furthermore, the equipment used is highly specific to processing citrus and pineapple fruits. This hinders diversification into making alternative products such as tomato ketchup and sauces.

ii. Pickling industry

Currently, a local firm, Eswatini Swazi Kitchen, is engaged in preserving fruits and vegetables. Also Bromor Foods (SWD) prepares squash and jelly powder from locally grown citrus. However, the unavailability of raw materials on a consistent basis from Swaziland was reported as being a major problem. In addition, a local NGO is encouraging women to pickle vegetables in the winter season for use in the summer months.

b. Role for small farmers

The numerous small farmers in the country need to be better integrated into a full scale production and marketing system if they are to expand their production of horticultural products and reduce import dependency. The CAPM project currently helps small farmers to prepack their produce in farmer operated packhouses, arranges for the transportation of prepacked products from the packhouses to the SFPM, and negotiates with market agents so products can be sold to supermarkets and South African traders. These efforts have had mixed results due to a variety of problems discussed earlier. Some method must be found through contractual arrangements so that private entrepreneurs will undertake some of the these functions. The entrepreneurs could be pure traders who assist the small farmers to secure a market and provide them with technical assistance, or they could be large growers who contract with several small farmers to produce for a specific market.

One white Swazi exporter is conducting an experiment by contracting some 15 small farmers to grow chillies for the Indian ethnic market in South Africa. He provides them with inputs, technical assistance and an assured market. While the use of contract farming is limited by the nature of the products grown and the type of markets served due to problems in quality control, it nonetheless offers a way to integrate small farmers into the commercial horticultural production system. A strong contractual relationship between small and large farmers will also enable small farmers to diversify into growing high value crops such as strawberries, minivegetables, chillies, herbs and asparagus for exports in future. In the mean time, small

farmers in Swaziland should concentrate on growing tomatoes and cabbages of sufficient quality and quantity to meet the demands of lower income domestic consumers and Indian markets in South Africa. The Indian market in South Africa does not demand high quality products. Some of the more advanced farmers producing better quality products can produce for higher income local and regional markets.

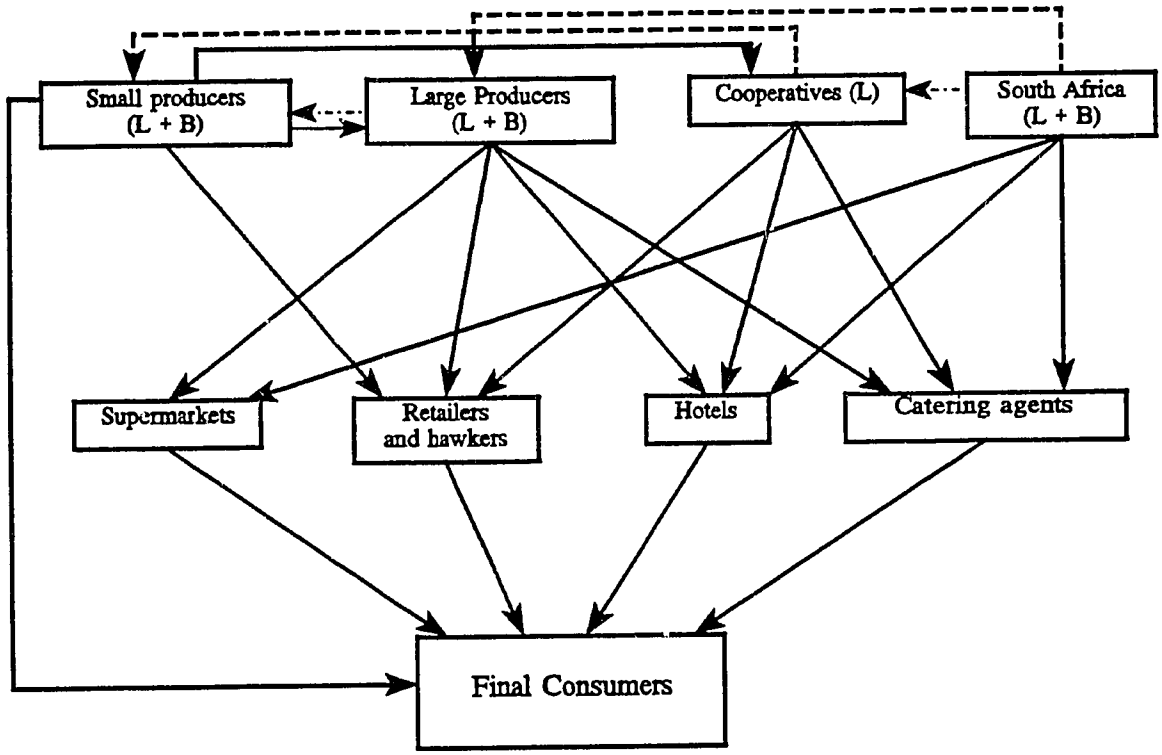
c. Role for large farmers

Large farmers are generally able to obtain inputs, credit and technical assistance to produce good quality products. Efforts are needed to encourage them to use contract farming to increase their marketable surplus, and thereby achieve the critical mass needed to serve specific markets including domestic, intra-regional and European markets. This system would also help small farmers who generally lack access to technical assistance and to markets. In addition, partially integrated farms using outgrower contracts and joint ventures with traders and processing industries may be viable options. Successful experiments of this type would increase the probability that the country would eventually succeed in serving European markets in future.

IV. The Poultry Subsector

The poultry subsector is somewhat similar to the horticultural subsector in that it has a bimodal production structure. There are a few large broiler and layer operations, usually owned or operated by whites, employing modern technology imported from South Africa, with operational costs low enough to compete with South African producers in filling niche markets in Swaziland. There are also a large number of smaller producers, mainly supplying household needs or local markets. Like the horticultural sector, domestic production represents only a fraction of total consumption, especially for high quality eggs and broilers, so there is scope for import substitution production. However, unlike horticulture, there are no strong seasonal patterns in the production of poultry products so Swaziland has no clear seasonal advantage relative to South Africa. Furthermore, there are suggestions that even modern South African producers have difficulty in competing in international markets so this seems to clearly rule out Swazi exports of poultry products for the foreseeable future. Figure 7 presents the major channels through which poultry products flow from producers to consumers. Unlike horticultural products, there are no wholesale markets through which the products flow and where prices are determined.

Figure 7. Flow of Products in Swaziland Poultry Subsector.



Notes: Point of Lay/day old chicks and feed; L: Layers; B: Broilers.

1. Major participants in the subsector

A. Producers

There are two major broiler producers in the country. One is Valley Farms which currently produces about 15,000 broilers per week. It is highly vertically integrated. In addition to broilers, it has a hatchery to produce its own day old chicks, a slaughter plant to process its own production and some broilers of another producer, and the feed retailing firm, Tri-Cash. Tri-Cash is the exclusive Swaziland distributor for the NLK company of South Africa. It handles a wide variety of poultry and livestock feeds. The second large producer is Swazi Chick which currently produces about 20,000 broilers per week and is developing an expansion plan to double operations, operate an outgrower scheme, and construct a slaughter plant to process the total production. Swazi Chick is linked to Swazi Feed, a feed mixing plant taken over from the government two years ago. It produces feed using corn imported from South Africa mixed with

byproducts purchased from local industries. This firm imports all of its day old chicks from South Africa. Both firms sell some of their broilers processed and some live. There are also a number of smaller producers that import all their day old chicks and sell live broilers. Finally, there are a large number of farmers that each produce a small number of broilers for home consumption and local sales.

Egg producers are somewhat more heterogeneous. A prison farm with 12,000 layers is one of the largest producers. It is reported to be well run and produces exclusively for its captive market. One producer has had 8,000 layers in production since December. He sells directly to supermarkets under the label Farmers Free Range Eggs to identify that his layers are not caged. His eggs have a strong demand in the marketplace because they are believed to be fresher than imports. It is reported that there are about seven egg producer cooperatives. Two cooperatives have received assistance from a U.S./Israeli development project. Both have central production facilities and several individual members as outgrowers, each with their flocks of one to several hundred hens. The Khutsala cooperative was started in 1988 and currently has a total of about 25,000 layers. The Shibani cooperative was just started in 1993 and has 2,000 layers in its central facility. This cooperative has 27 members each with some 100 hens per member. The coops and their members sell their eggs through a variety of methods including sales to wholesalers, and direct sales to consumers, small retailers, and supermarkets. Finally, many farmers have a few hens raised in traditional free range systems that produce for home consumption and local sales.

B. Input suppliers

Except for Valley Farms, broiler producers purchase their day old chicks from South Africa, especially since the government hatchery closed production. All point of lay pullets are imported for laying operations. Two supply problems exist for Swazi producers. First, there is often sharp competition for available supplies. Purchases are usually scheduled in advance so hatchery and point of lay producers incorporate the advance orders into their production systems. Second, poultry diseases have been a problem in both South Africa and Swaziland, and Swazi producers have not always received good quality birds. For example, one producer had to cull 500 point of lay pullets out of 4,000 purchased because of their poor quality.

With the exception of Swazi Feed, all commercially blended poultry feed is imported from South Africa. Feed milling is constrained by the lack of yellow corn production in Swaziland. TriCash may be responsible for as much as 70 to 80 percent of all the livestock feed sold in the country. There are important economies of scale in feed purchasing. Purchasers of large quantities can get price discounts of as much as 2 percent by buying in bulk rather than in bag, and may get suppliers credit for 30 days or more. Furthermore, purchasers of truck load lots can reduce handling and transportation costs by arranging direct delivery to their farmsteads. Their total cost is the discounted retail price plus the marginal transportation costs from the retailer's site to the farmstead.

The medium to large scale producers may be able to reduce feed costs by producing and/or buying yellow corn and grinding it in small, on-farm mills. There is, however, little production experience in Swaziland because white corn is produced for human consumption. Pricing relationships also impede local production. The support price for white corn is over E600 per ton while the cost of imported corn is about E550 per ton plus a 3 percent levy. Unless there are productivity advantages in producing yellow rather than white corn, producers will logically produce white corn, and import and grind yellow corn if they think it will reduce costs relative to importing complete rations.

Laying cages, feeders, pumps and watering equipment, veterinary supplies, and some construction materials for both broiler and laying operations are imported directly by producers or local retailers. Larger producers enjoy advantages because they can undertake the search costs of comparative shopping for the best prices, qualities and technologies in South Africa.

C. Marketing systems

The marketing systems employed vary by volume and quality of products sold. Larger broiler and egg producers can obtain better prices and profit margins by selling directly to consumers, supermarkets, hotels, and restaurants. However, they also incur the cost of developing these marketing arrangements, delivering the products, and waiting for payment. Producers of broilers and spent laying hens have the option of selling live or processed birds directly to final consumers, to wholesalers or to small retailers and hawkers. Eggs and processed broilers can only be stored for a few weeks so there are advantages for producers to arrange for orderly and speedy marketing. Prices tend to fluctuate in response to changes in prices of imported products. Swazi producers have to cut prices in order to move products during periods of South African oversupply and soft prices.

An important mechanism in the linkage of South African with Swazi prices occurs through the firm Family Fun, a major wholesaler of frozen poultry and eggs. It sells to supermarkets, restaurants, hotels, and caterers. About 85 percent of its total sales of these products are imported from three or four major South African suppliers. The large Swazi poultry producers sell directly to supermarkets when they can, but sell at wholesale prices to Family Fun when demand is low. Likewise, supermarkets compare the prices of local producers with Family Fun imports when making their purchases. The producers also decide whether or not to incur the costs of slaughtering by comparing the prevailing prices for live and processed poultry. Live birds are sold to specialized retailers, who sell to consumers and hawkers, and occasionally directly to consumers and hawkers. Price competition also occurs when local supermarket managers determine whether or not to purchase locally or directly from the South African wholesalers that regularly supply their supermarket chain.

D. Retailers

The primary retailers are large supermarkets, small retail shops, including specialized outlets for live poultry, and hawkers. Supermarkets are large and modern. They have access to

South African wholesalers/suppliers that supply the entire supermarket chain with a line of products. With this system, many products are delivered to the supermarkets prepackaged, marked and priced.[17] If the local manager wants to reduce his workload in buying from several different suppliers, he can simply order from the chain's procurement system. Supermarkets that operate on a franchise basis, such as Spar, have more flexibility in procurement. The perception exists that they are more willing to buy from local producers. Several of the large producers attempt to integrate their operations and increase their profit margins by supplying supermarkets directly.

There is a strong market for live chickens by African consumers, frequently without home refrigeration, who prefer larger birds than typically produced in broiler operations, and who prefer to slaughter just prior to consumption. Small specialized retailers and hawkers serve this live poultry market and also sell eggs. These retailers buy directly from producers and from wholesalers. In rural areas, consumers frequently buy live poultry and eggs directly from producers.

2. Support Services

Poultry producers do not obtain much support from the government. There is little poultry research in the country. The government has a few poultry extension agents who appear to be constrained by a lack of access to modern technology, and vehicles and other resources to conduct extension programs. Farmers considering making investments in the sector get information from other producers, private consultants and South Africa. The government owned hatchery that produced day old chicks has been idle since last September due to a disease outbreak which required complete liquidation of the flock. A handful of donor projects work with farmers to stimulate poultry production. An important constraint in the country is the lack of a poultry veterinarian. Several of the large producers have an advantage by banding together to share the cost of periodically hiring in a South African veterinarian for consultations.

3. Challenges for Expanding and Improving the Subsector

Swaziland has some opportunities to expand the poultry subsector, but it also faces important constraints due to the general characteristics of poultry enterprises and the specific problems the country faces. The nature of the general business environment was reported above in the horticultural sector. This section summarizes other issues specific to poultry.

---

[17] Purchasing imports does not always guarantee good, uniform products. A considerable variation has been noted in egg sizes within individual cartons.

A. Advantages

a. Market

An important advantage exists for poultry compared to some other subsectors within agriculture: a market is readily available because the country imports a large share of the poultry products consumed.

b. Availability of technology and infrastructure

The technology of producing and processing poultry products is well developed and is readily available next door in South Africa. It can be imported and adopted with little adaptation in Swaziland provided the necessary inputs can be obtained. As noted above, communication and transport facilities need improvements, but the country has a fairly good road system which is needed to import production inputs and transport broilers and eggs.

c. Resources

Swaziland has underutilized land that can be allocated to poultry production. An important resource is labor, especially on small farms with a low opportunity cost of time and where a source of cash income is highly desired by low income people. An hour or so per day of time spent in caring for a hundred laying hens, for example, is quite feasible on many farms. The development and operation of cooperatives which require the input of member labor is somewhat more complicated because of transportation limitations for the members.

d. Disease Control

Since Swaziland does not have much poultry production now, it may have an advantage in ease of controlling the potential spread of poultry diseases compared to South Africa which has a heavier concentration of large scale producers.

B. Constraints

If Swaziland is going to successfully expand the poultry subsector, it must efficiently produce good quality products that are competitive with South Africa. The constraints to expanded production include the following:

a. Regular supply of inexpensive inputs and support services

A serious constraint is that Swazi producers do not have a domestic supply of inexpensive production inputs or support services. For example, the efficient production of day old chicks and point of lay pullets is one of the most technically demanding aspects of the entire production system. The disease problems of the government hatchery demonstrate one aspect of the problem. Therefore, for the foreseeable future, Swaziland will have to depend on South Africa

and pay the higher prices implied in importing most of its chicks and pullets. A second constraint is the supply of yellow corn. For the reasons noted above, that situation is unlikely to change due to price differences between the prices paid for domestic white corn and imported South African yellow corn. Thirdly, several other inputs used in large quantities, such as egg cartons, are expensive if purchased locally. Fourth, there is little domestic research or extension capacity for poultry, and there is no poultry veterinarian in the country.

b. The characteristics of the enterprises

The characteristics of the poultry enterprises relative to some other farm enterprises constrain their adoption by many farmers, especially small farmers, for several reasons. First, poultry enterprises are by definition fairly capital intensive and there is a considerable degree of asset fixity; that is there are relatively few alternative uses for specialized poultry buildings and equipment if a producer wants to terminate production. These assets are saleable only to other poultry producers. Second, a good water supply and supplemental lighting are required to ensure maximum disease free production. Third, there is always the risk of devastating disease outbreaks as occurred recently in South Africa. Strict disease prevention techniques and a regular vaccination program are essential features of good management. For these reasons, lenders are reluctant to make poultry loans, especially if the farmer has had little previous experience in producing poultry.

c. Complex management

Egg and broiler technology is well developed, but it is complex and easy to mismanage. Profit margins are thin. For example, one large producer reported that if broilers are held just three days beyond their optimum slaughter date, the profits are eliminated. Eggs and frozen chicken cannot be stored for long periods in order to avoid selling when prices are low so a premium is earned by those producers who can organize sales to ensure a reasonable price at all times. To even out cash inflows and outflows, the larger producers use several buildings each with birds at a different phase in their production cycle. Financial mismanagement is always a threat for producers who operate as joint ventures or as cooperatives, and good management skills are frequently reported to be a serious constraint in the country.

d. Competition from South Africa

An oversupply problem reportedly exists for poultry products in South Africa and is expected to continue in the future. This will tend to keep import prices low which will put pressure on producer prices in Swaziland. Under these conditions, there will be temptations to dump some of the oversupply into the Swazi market, as has reportedly occurred in the past. Swaziland may have difficulty in preventing these occurrences from damaging local producers. Furthermore, there is already a strong South African presence in the Swazi market which may prove difficult to break. For example, the large OK supermarket chain and the Kentucky Fried Chicken fast food restaurants buy from South African suppliers. Since the managers of these outlets can reduce their transaction costs by simply ordering from established suppliers, there

is little incentive for them to purchase from local firms that have not yet demonstrated their capacity to consistently supply a good product at competitive prices.

e. Access to capital

Access to capital is an important factor in determining entry into large scale poultry production and in shaping the structure of the production and marketing systems found in the subsector. Only those firms with access to a large amount of long-term capital can consider developing large integrated broiler and layer operations. Only those firms with large amounts of working capital can develop marketing systems in which they regularly deliver their products and grant suppliers credit to their buyers. Swaziland is at a disadvantage in that it does not have a venture capital fund or a well functioning investment promotion program to facilitate matchmaking between foreign and domestic investors.

The local financial institutions, including SIDC, can be expected to finance some larger scale operations for producers with significant equity participation and recognized management ability. They will not likely be good sources, however, of start-up loans for low equity entrepreneurs with limited experience in the subsector. The loan guarantee fund will not improve access to commercial loans for many of these entrepreneurs. Besides its current constraints, the general problem is that evaluations of loan guarantee funds in other countries suggest that they have little impact on increasing the supply of loans for projects or borrowers that lenders perceive as being highly risky.[18] Therefore, limited equity entrepreneurs generally must rely on informal financial sources to augment equity funds. South African agriculture, on the other hand, has received a large amount of subsidized long-term credit which probably contributed to developing a large, capital intensive, integrated poultry industry.

Donors have helped alleviate perceived capital constraints in the financial system by channeling funds for on-lending through the SDSB, but the high delinquency and default rates it has experienced in the past discourages use of this alternative in the future. Donor and NGO projects, however, also have problems of sustainability as discussed in the following section.

4. Sustainability of Innovative Sponsored Projects

A frequent problem faced in donor sponsored projects is the difficulty of sustaining a project especially after donor support ends. That problem potentially exists in the poultry subsector. Of the several donor sponsored projects that support poultry, the most ambitious and technically advanced is that given through the a U.S./Israeli funded development project. The Israeli poultry expert, Shlomo Yerushalmi, is heavily involved in developing the Shibani poultry project. It involves a central cooperative facility with 2,000 caged laying hens linked to 27 individual women farmers who each have an average of 100 layers in their individual household operations. An additional twenty or so women expect to start production in the next four months.

---

[18] See, for example, Levitsky and Prasad.

The project has about 150 total members, all of whom are women. About 80% have paid up membership shares of E250 each.

Construction of the coop's central facility began in May, 1993, and egg production started in November. The central facility has seven paid employees. The project truck periodically picks up the individual members' egg production and drops off feed supplies. The feed is purchased in truckload lots and is sold to members and nonmembers for a small markup over cost. All eggs produced in the central facility and by the individual members are graded by size, and payment is made according to the quantity of each size produced. About 90 percent of the total production is sold and delivered to 14 local customers (hotels, retailers, etc.) on a fixed schedule. The individual members periodically come to the central facility to contribute labor and to pick up payments for their eggs.

The design of the central facility and the individual member units, the selection of feed rations, and the development of the production and marketing plans can be attributed in large part to the Israeli expert. The Ministry of Agriculture provides poultry and cooperative development extension agents at no charge to support the project. The project's total investment cost was just over E300,000. It was funded mostly by funds provided by the Israeli government and the joint Israeli and U.S. technical assistance program. A revolving loan was created to finance the members' installation costs that average E3,000. These member loans are to be repaid over 18 months after the layers start production with a two months grace period. The members provide the land and construct their individual laying houses. The members also contributed their labor to help build the centre's facilities.

To date, the project appears to be successful. Egg production per hen is high in both the central facility and member flocks, diseases have been controlled and death rates are low. Careful feed procurement and direct sales to local purchasers appear to have produced good profit margins. The individual members appear to be enthusiastic and some 20 members are waiting to start their individual operations. The project so far seems to have validated the basic model in which some economies of scale are reached in production and marketing by linking the members' production with the central facility. In a sense the project operates much like a commercial outgrower scheme found in other countries in large scale poultry operations, except here the members in theory control the entire system and share in the coop's profits.

This project reflects an important dilemma of many donor activities; that is, how to sustain it without heavy donor input. There is an obvious role for donors in trying to design innovative approaches to solve development problems. But the challenge is to design projects which are sustainable when the heavy donor inputs and subsidies are removed. No comprehensive analysis has yet been conducted to determine the long-term financial viability of this poultry project. Some of the most important issues are financial. They include questions such as: Is the truck and other equipment being adequately depreciated so they can be eventually replaced? Are cash reserves being accumulated to purchase new point of lay pullets when the current hens need to be culled, and to help additional members start production? Finally, there are important questions of integrity in the management of the financial affairs of

any group activity. For instance, the similar Khutsala cooperative poultry project, initiated in 1988 with 4,000 layers which has now grown to 25,000 hens, apparently operated well for several months without foreign assistance but is now reported to be missing some E90,000. It is not clear if these funds were stolen, or if they represent operating losses.

The problem is that although the project design may be sound, it is complicated and requires considerable technical and managerial input by someone qualified, in this case the Israeli expert. It is questionable if in a short period of time the members will be able to acquire the skills and discipline required to maintain the project once the technical assistance is withdrawn. It is doubtful if the coop and poultry extension agents, with their governmental constraints and lack of incentives, will become effective substitutes for the Israeli expert.

There are at least two alternative approaches that might exploit the positive technical features of the project's basic design while improving its chances of sustainability. The first is to investigate improving its management capacity by hiring a person or firm to take over day-to-day management. Utilizing a profit-sharing contract might provide the incentives necessary for careful management. This approach would demonstrate to the members the cost of good management and would clarify the financial viability of the design. A second alternative would be to convert the entire model into a private outgrower scheme as a type of franchising arrangement in which additional units would be located throughout the country wherever a large enough local niche market exists. This approach would introduce private sector discipline into the entire operation. The characteristics of the broiler outgrower scheme now being developed should be studied for possible insights into how to design outgrower contracts so that all parties are motivated to make the project succeed.

V. Financial Services for the Horticultural and Poultry Subsectors

Swaziland does not have a well-developed rural financial system with the capacity to effectively screen borrowers, monitor loans, and recover most of the funds lent. The country has pursued some of the supply leading credit policies often used in Sub-Saharan African countries during the last two decades to try to encourage greater formal lending to agriculture.[19] Much of the agricultural lending has been done by the Swaziland Development and Saving Bank (SDSB) and donors have been an important source of the funds lent. The commercial banks generally restrict their lending to the largest farms. Formal bank loans are available for only the largest producers of horticultural and poultry products. As a result, much of the funding used to finance these two subsectors is equity capital and informal loans. Some large firms are organized as corporations and receive a sufficient amount of resources as director loans. This section provides an overview of the financial system and how formal and informal finance supports these two subsectors. The financial institutions were reluctant to supply information about their operations so little quantitative analysis could be conducted.

---

[19] For a regional summary of rural financial markets, see Meyer et al., 1992.

1. Formal Financial Agents and Loan Guarantees

The country has a total of five commercial banks plus several non-bank formal institutions including the Swaziland Industrial Development Company (SIDC), Commonwealth Development Corporation (CDC), International Finance Corporation (IFC), The Netherlands Development Finance Company, The European Investment Bank, and The Swaziland Business Growth Trust (SBGT). The majority of the loans made by these formal institutions, however, go to non-agricultural businesses. Of the total loans and advances made in 1992 by these formal institutions, the agricultural sector share was only 8.4% (Central Bank, 1993). Roughly two-thirds of the lending by banks to agriculture is done using the overdraft system which places a premium on having had well established business relations with a bank before seeking a loan. Furthermore, even overdrafts are usually fully collateralized so farmers are at a disadvantage if they have few assets acceptable as collateral. Participants in donor supported projects may get loans or credit in kind for building installations, buying equipment, or purchasing poultry.

A. Private Commercial Banks

The four private commercial banks—Barclays, Meridien Biao, Stanbic, and Standard Chartered—believe they play an important role in financing agriculture but it is limited to serving large and corporate farms. They tend to have long standing relationships with these firms. For example, roughly 10% of Stanbic's total portfolio is agricultural of which approximately half is concentrated in the citrus and sugar cane sectors. The Standard Chartered agricultural portfolio may only reach five percent of total lending, and the pineapple subsector may represent more than half of it. Likewise, about a third of Barclays agricultural lending is in the sugar subsector. Historically, Stanbic has had a large leasing program, so undoubtedly some of its truck leases have gone to traders and producers in the horticulture and poultry subsector. This probably occurs in the other banks as well so the market share reportedly devoted to agriculture is understated. Leasing is regarded as a fairly good business because of the relative ease in recovering the collateral in case of default.

All four banks viewed small farmer lending as costly and risky. None of them saw the Central Bank guarantee programs as very effective means to reduce their lending risk. As a result, they report very few loans made to small scale producers. One bank reported one poultry loan that was in partial default. Many of the smaller loans are made on an overdraft basis in sizes as small as E2,500 to 3,000. Each account is reviewed annually, and a ceiling and collateral requirements are established for the year.

Interest rates are set at prime plus several percentage points which represent the risk premium attached to the specific borrower or project. All the banks report a preference to do business with borrowers who have an established business and a record of transactions with the bank rather than finance new business start-ups with new customers. All four banks believed that their delinquencies and defaults were reasonably low, but there was a recognition that their large exposures with individual businesses, such as pineapple processing, makes them vulnerable to potential losses if that business runs into difficulty.

Only one bank reported working with a NGO in which the NGO retailed loans to its members after receiving a wholesale loan from the bank. This approach is being experimented with in other developing countries and merits greater consideration in Swaziland. It may offer an opportunity for the banks to more fully fulfill their social obligations for lending to lower income people yet pass on some of the lending costs and risks to the NGO.

B. SDSB

The majority of agricultural lending from formal financial institutions to smaller scale customers is done by SDSB, a parastatal that advocates targeted credit to agriculture at subsidized interest rates. The majority of funds for its credit programs are provided as grants from several international agencies including EDF, IFAD, WID of World Bank and ADB. The nominal annual interest rates charged for agricultural loans range from 14.25% to 20% compared to prime plus 5-6% (about 20- 21.5%) at other commercial banks. Currently, SDSB is experimenting with group loans to vegetable growers, and the repayment rates are expected to be higher than loans to individual maize growers. The group lending approach is reported to have increased access to formal loans for women who otherwise need collateral and the consent of their husbands to secure loans (SDSB annual report, 1993).

The most important problem for SDSB is that it is perceived as a political lending institution rather than as a viable bank. The bank is subject to political pressure concerning decisions about who to lend to and who to collect from. Donors use it as a channel to lend funds to their targeted beneficiaries. Although they are concerned about the banks' viability, one gets the impression that speedy disbursement to meet project objectives is a more important concern. This situation contributes to serious loan recovery problems. An African Development Bank line of credit used to finance fruit and vegetable producers is reported to be experiencing low recovery now. A few layer and broiler loans have also been made by SDSB and the recovery rate in the early phases of these loans is reportedly close to zero percent. For regular commercial lending, low recovery rates for loans made to specific subsectors would be indicative that they represent risky areas in which to lend. Given the circumstances of the SDSB, however, that is too simplistic an interpretation in this case. Indeed, lending to the horticultural and poultry subsectors may be risky, but other data are needed to support that argument.

C. SBGT

The SBGT has the potential to become an important source of financial services for horticultural and poultry sectors. It was established in 1992 with the financial and technical assistance of USAID to stimulate the growth of established Swazi small businesses to create employment and generate income. SBGT provides services including marketing, construction and business planning while its subsidiary, the Growth Trust Corporation (GTC), provides business

and housing loans.[20] All loan applicants are mandated to take business planning services at SBGT to prepare cash flow statements used in the application for GTC loans.

GTC offers loans at about 33% per annum for business growth, working capital, franchising, purchase of equipment, discounting invoices and housing projects. Only established firms are financed. Business growth loans, called class A loans, are 90 day working capital loans offered at the prime rate plus 18% with a loan processing fee of 10%. The line of credit for eligible borrowers starts at E2,000, increases by E1,500 every quarter based on repayment performance until the borrowers reach a maximum of E7,500. The working capital loans, called class B loans, are made for longer periods at an annual interest rate of prime plus 10% and a two percent loan processing fee. Loan size ranges from E5,000 to E35,000. These loans are usually offered to Class A graduates to expand their businesses. The franchise financing loans are basically equity financing loans made for a period of 48 months in the range of E20,000-150,000 to cover start-up costs and franchising fees. Equipment loans finance production and the purchase of equipment in amounts from E5,000 to E35,000 for a period of 12 months at a prime plus 8-10% annual interest rate. Invoice or bridge financing is used to discount specific invoices to small business owners who need to borrow because they have capital tied up in orders delivered but not yet paid. Accounts receivable from reputable businesses qualify for a 90 day loan but can be rolled over for up to 180 days. The interest rate is prime plus 10%. Housing loans are offered for home acquisition and improvements to borrowers with access to title deed lands (SBGT business plans, 1994).

From October 1992 to June 1994, a total of 909 individuals have received GTC loans. The project design assures that women entrepreneurs represent at least 30% of the loan portfolio. Of the total 909 clients, 550 were male and 359 were female (61% and 39%, respectively). The majority of the clients (82%) were Swazis while the rest had temporary residence permits. The primary clients were traders and microentrepreneurs who employ less than five persons for their businesses (about 14% have no employees) including sewing, metal work, construction, wood processing, handicrafts and pottery, hair dressing and engineering services. While 156 firms (17% of the total) were at least nine years old, 538 (59% of the total) were started after 1990. The majority of the clients (69%) were thirty years old, and 62% were married. 76% of the clients owned their businesses and the rest were co-owners. The majority of their clients (57%) were first time formal institution borrowers; only 43% of their clients reported accessing loans from other financial institutions including SIDC, SDSB, commercial banks and credit unions prior to borrowing from SBGT. Nearly 75% of the clients took loans to expand their existing businesses, while 25% added a new business to the existing one. There was careful screening of applicants. For example, out of 1,338 applicants during October 1992 to May 1994, only 852 (64% of the applicants: 61% male and 68% female) were accepted for loans. In 1994, the approval rate was 68% of the total applicants (63% male and 73% female). The reasons for rejection included no existing business or employees or permanent place of operation. Generally, the ap-

[20] Although SBGT is a non-profit institution, its subsidiary, the Growth Trust Corporation (GTC), offers financial services on a for profit basis.

plicants first priority was to get a loan followed by market information, but only a few requested services such as technical training and assistance in starting new businesses (SBGT statistics, 1994).

The GTC loans to the poultry and horticultural subsectors were, however, insignificant. Of the 909 clients serviced during the project period October 1992 to May 1994, only 23 and 38 were in the poultry and horticultural subsectors, respectively. In 1994, a total of 245 clients received 478 loans. Of this, six with 14 loans and nine with 21 loans were from the poultry and horticultural subsectors, respectively. Of the total volume of loans issued by SBGT in 1994, loans to poultry and horticultural subsectors accounted for only two percent and four percent, respectively. The poultry and horticultural loans recorded repayment rates of 89 and 83%, respectively, compared to 95% for other sectors (SBGT statistics, 1994). Delinquent loans are defined as 90 or 95 more days past due.

SBGT is planning a geographic expansion into rural areas in 1994. Rural expansion should result in more agri-business loan applications. These may be higher risk loans, especially if the activities are outside of SBGT's expertise. Therefore, it is essential for SBGT to evaluate its strengths and weaknesses in devising appropriate financial instruments for rural areas. Smart cards that cost E35/card are an innovative financial instrument introduced by GTC to finance small businesses. The loan amount is electronically encoded into a card that can be used in any smart card machine installed in local commercial banks. A comprehensive statement on bank transactions is submitted to GTC for borrower monitoring by a full time MIS officer. Borrowers can make partial withdrawals and payments into their account using the smart card. The smart card users are indeed smart; some borrowers reported immediately withdrawing their loans in full to transfer into their savings account or to onlend to others to earn interest so that the effective interest rate on their loans can be reduced. Smart cards are especially useful to those without a savings account in a bank, and to repeat borrowers.

Although GTC is registered as a financial institution, it has not yet been authorized by the Central Bank to mobilize deposits. Therefore, it primarily depends on loans and overdrafts from other financial institutions and, to a lesser extent on donor funds, fees and interest earnings to run its credit program to service high risk borrowers. Transaction costs are high, especially in terms of screening and monitoring clients.[21] With a default rate of 5%, SBGT can just break even with the current portfolio and clients (SBGT: Business Plan, 1994). The current repayment

---

[21] It is estimated that about ten hours are spent on screening and monitoring each client who took a business growth loan. This represented a cost of about E1,200 per client. With an additional E125 in administration cost, each client costs about E1,325 for a loan that ranges in size from E2,000 to 7,500 and has a term of 90 days. With an interest rate of 33% per annum, SBGT can earn a revenue of E2, 935 per client if (s)he remains in the program for one year. It was reported, however, that out of six group loans with 33 clients made under business growth category (class A), only 18 (55%) applied for a higher loan size in that category (SBGT interviews).

rate is reported to be around 95%. There is a need to expand the portfolio and clients in order for the program to become sustainable.

It would be difficult for GTC to increase its revenue by making more poultry and horticultural loans to small producers. The transaction and risk costs involved in servicing these clients cannot be covered with the current interest rate. The interest rate cannot, however, be increased beyond the current 33% without potentially attracting a very risky clientele. Experiments could be conducted, however, in providing small business growth loans to poultry cooperative members based on a guarantee from the cooperative, and in lending to small horticultural producers guaranteed by market agents or large farmers. While some argue that strengthening small business enterprises through the provision of equity capital is premature for young enterprises, it is, nonetheless, a potentially viable option.

D. SIDC

It is considering supporting a new project for a 8,000 hen laying operation and the project for the new broiler slaughter plant.

E. Guarantee Schemes

To increase the flow of formal credit to risky sectors including exporters and small businesses, the Government of Swaziland established in the Central Bank the following: (i) the Small-Scale Enterprise Loan Guarantee Scheme, (ii) the Export Finance Loan Guarantee Scheme, and (iii) a refinance window for commercial bank financing of exporters. The refinance facility allows commercial banks that experience liquidity problems to rediscount loan papers guaranteed under the export finance scheme with the Central Bank at the rediscount rate. The Export Finance Guarantee Scheme guarantees up to 75% and 85% of pre-shipment and post-shipment loans, respectively. Only about 0.9% and 1.3% of total exports in 1992 and 1993, respectively, were covered under this scheme (Central Bank, 1993). Coverage for the horticultural and poultry subsectors has been negligible. Although the actual defaults on loans guaranteed through these schemes have been reported to be low, large provisions have been made for future losses which implies the risky nature of the enterprises financed. The commercial banks are reluctant to utilize the guarantee facilities because they can obtain 100% collateral from their borrowers compared to only a 75-85% coverage from the guarantees. In addition, participation in the schemes and the settlement of claims have involved tedious and expensive procedures. In summary, there appears to be little additionality due to these schemes in terms of an increased number of loans made or larger sized loans made to risky enterprises.

The small role played by formal finance has induced semi-formal and informal financial agents to service the horticultural sector.

2. Semi-formal Financial Agents

Some 44 NGOs are registered with the Coordinating Assembly of Non-Governmental Organizations (CANGO), and approximately 13 are actively engaged in promoting horticultural production and seven in poultry. Four NGOs are reported to offer financial services, such as loans and deposit mobilization, but the number of horticultural and poultry producers served by them is reported to be small. In addition, the European Development Foundation (EDF) provides infrastructure grants under its microprojects scheme to form community gardens and establish small poultry units. An evaluation of EDF microprojects showed that the majority of their nonperforming projects were poultry and piggery units due to transport, financial and management problems (Oates, 1994).

3. Informal Financial Agents

Rotating Savings and Credit Associations (RoSCAs) called Luholiswane in Siswati are commonly found among market women selling horticultural products. Suppliers credit is also commonly granted by producers that supply hotels, supermarkets, and by retailers to a small group of their regular clientele. However, small producers seldom extend credit to their trader buyers. They prefer to sell on a cash basis in the spot markets. However, they are mandated to sell on consignment when trading through market agents at SFPM. Credit through outgrower schemes is also very rare in the horticultural subsector. The few existing outgrower schemes only guarantee a market outlet and seldom provide any inputs for production.

In the poultry subsector, there is a fair amount of informal finance in the form of suppliers credit granted to customers who make large purchases and have well established business relationships with the suppliers. The larger farmers are able to obtain 15-30 day credit from feed suppliers. These producers, in turn, assure a steady supply of their products to their best customers and accept deferred payment. Hotels and supermarkets usually purchase from sources that allow them to pay within 30 days of delivery, but smaller wholesalers/retailers and hawkers normally have to pay cash for their purchases regardless of source. The granting of credit by producers means that they are financing the flow of commodities within the marketing system. There were no reports of forward contracting in which the purchaser provides funding for products to be delivered at a future date.

VI. Conclusions and Recommendations

Many of the economic development problems faced by Swaziland must be dealt with regionally because they involve economic relations with South Africa. If the entire Southern African region was a single country, some of the wide intra-regional disparities would be resolved through migration and economic development. Specific regional investment strategies could be employed to further reduce intra-regional employment and income differences. Now these problems can only be dealt with through negotiations on issues such as dumping, trade regulations, and investment policies. These negotiations can try to at least level the playing field for private enterprise competition.

Swaziland needs to evaluate what it can effectively do to stimulate the horticultural and poultry subsectors. Opportunities exist to increase the production and marketing of fresh fruits, vegetables and poultry products. The fact that the country is a net importer of these products means that a market is available if local production can compete in price, quality and reliability. The difficulty for Swazi producers is that they are located adjacent to a more advanced nation which can supply the Swazi market with many products at competitive prices. Although Swaziland has ready access to many of the production technologies and inputs used in South Africa, transportation costs and limitations in entrepreneurial and managerial capabilities retard their adoption. Efforts must be directed at providing good general support services, and exploiting market niches where Swazi producers have the best chance of competing.

The following areas should be explored for government action, and some may be appropriate for private sector initiatives and/or donor support.

1. Provision of Public Goods

The government needs to concentrate on providing those public goods that clearly fall within the public sector, and that are supportive of all producers. Chief among these are research and extension. Research is required to identify the enterprises, the specific crop varieties, and the livestock and poultry breeds most appropriate for Swazi production conditions, and for which there is the best domestic and export market potential. Producers must develop confidence that they will find good information in government offices when they wish to make investment decisions or face production and marketing problems. Carefully targeted support for extension is required so that specific problems of the subsectors are addressed. Activities such as the USAID CAPM project and the Israeli poultry project need to be internalized so their continuity is assured after donor support ends. The government needs to support the development and enforcement of grades and quality standards to prevent inferior quality products from entering the market and creating a bad image for Swazi producers. Some of this governmental support may need to be channeled into unique research for Swaziland, but the country may also be able to borrow heavily from research conducted in South Africa and elsewhere.

On the other hand, the government needs to be selective in choosing what to actually operate as a public enterprise versus simply regulating the actions of private agents. For example, perhaps the government hatchery should be leased or sold to private agents to avoid the current situation whereby it sits idle because government funds are unavailable to acquire a new breeding flock. Furthermore, the government needs to carefully assess the recommendations to be made in the Coopers & Lybrand report contracted by NAMBOARD. NAMBOARD may have to be redesigned and reconstructed so it is assigned a mission more consistent with its capacity. Currently it appears to operate more as a taxing body than as an effective agency for trade protection.

2. Special Studies and Training

There are two special studies that the government should undertake or contract for to clarify specific issues in the horticultural and poultry subsectors. First, analysis is incomplete about the returns that have been or can be expected from certain enterprises. For example, there is limited good data for use in making robust estimates about what CAPM farmers actually earn through selling through packhouses and additional farm gate sales. There are no good analyses of the possible returns to be earned from various sizes of poultry operations. Operations in other countries suggest there are large economies of scale. However, smaller scale and cooperative operations, such as the Shibani cooperative, may offer a way to achieve good returns by combining centralized feed purchasing with individual small flock production units which use lower cost household resources. Such analyses should also consider the feasibility of creating a franchisable egg production system which the private sector could duplicate around the country wherever appropriate niche markets exist. Models for financing individual small producers could be developed for which the lenders would have some assurance that loan payments would be made through deductions from sales proceeds.

A second study is needed to clarify the possibilities for and constraints on the greater use of subcontracting and outgrower schemes. They are used in the country for growing cotton and sugarcane, but are not as widely used as in Kenya and Zimbabwe for horticulture and poultry. They often combine the advantages of large farmer expertise and access to markets with the use of small farmer labor and land. The small farmer subcontractors are often considered creditworthy by banks because of their assured access to markets. The study should identify if there are some things the government could do to facilitate the greater use of these production systems. A specific concern is the design of contracts that will encourage all parties to successfully fulfill them.[22]

The lack of good management was consistently identified in the interviews as one of the chief constraints of Swazi agriculture. Additional management training could be an important contribution made by the government. Such training might be particularly effective for persons entering into outgrowing schemes, and might influence large producers to select outgrowers rather than use hired labor to expand own production.

3. Stimulating Investments in the Subsectors

Much of the equity capital and expertise required for large integrated poultry production systems must come from foreign sources, but Swaziland does not have an efficient system of investment promotion to attract foreign investors. Attracting investment is an increasingly competitive undertaking because many countries are developing one-stop investment centers. Furthermore, the recent political changes in South Africa have improved that country's image for investors contemplating investing in Southern Africa.

---

[22] For a recent publication on contract farming, see the study by Little and Watts.

The best alternative for increasing foreign investments in horticulture and poultry is likely to be through encouraging established South African firms to set up subsidiary operations and joint ventures in Swaziland. The second alternative is to work with medium sized local entrepreneurs, many of whom will probably be white farmers with some land and other resources, and encourage them to develop outgrower schemes for horticultural and poultry operations. An investment promotion strategy is needed in which specific persons and firms are targeted for assistance. USAID funded projects, such as EPADU in Uganda and KEDS in Kenya, offer ideas about how the private sector can be assisted through donor and government support to expand horticultural production and exports.

4. Formal Sector Lending

The formal banking system must be cautious about lending to these two subsectors because of the high transaction costs and risks involved. The risks take several forms. First, there is considerable production risk associated with producing horticultural and poultry products. They generally require more skilled management than do the traditional grain crops and livestock enterprises. Furthermore, since these are relatively new products for most producers, they do not have much accumulated experience to draw upon, and the existing research and extension services offer relatively little help. Second, the marketing channels are not well developed so that neither the producers nor the lenders can predict future prices and profits with great certainty. Since these products are fairly perishable, careful post-harvest handling and timely marketing are critical. Third, the total operating costs required to grow a small area of vegetables are relatively low if family labor is used, so average loan size per borrower for working capital is likely to be small. This implies high transaction costs for the lenders.

Three strategies should be pursued that could make formal lending more viable. First, if contract grower schemes can be expanded so that small farmers are linked with large farmers who have better management skills and access to markets, the production and market risks should fall and lenders should be more eager to lend. Second, a small scale poultry subcontracting scheme might be patterned after the Shibani Cooperative if it proves to be financially viable. This scheme might be replicated throughout the country wherever a large enough niche market exists. The risk of lending might be reduced by, say, having one of the commercial banks make long term loans for the buildings and equipment, and having SBGT or another lender make working capital loans for the cooperative and for the individual members. SBGT or other lenders might also be able to develop attractive lease/purchase programs for simple equipment, machinery and vehicles for which there is strong demand in the second-hand market.

The third strategy involves an experiment underway in South Africa. The Development Bank of Southern Africa has provided seed capital for an experiment that merits monitoring for possible adoption in Swaziland. The DBSA has provided funds to a South African NGO to experiment with designing a small scale poultry slaughtering plant that could be prefabricated in a used sea freight container, then hauled to and installed in a market town where a sufficient number of chickens are being slaughtered to make it feasible to upgrade to a more modern processing plant. If this design proves to be financially sound, it could be copied in Swaziland and

would represent a type of agribusiness that SBGT or another lender might find attractive to finance.

5. Producer Associations

There are two important actions that the private sector must take to enhance the prospects of successful expansion of these two subsectors. The first involves the formal or informal association of farmers so that through group or cooperative ventures they can purchase inputs in bulk, negotiate marketing contracts, advertise their products, buy and use machinery and equipment, and share costs such as veterinary services. A second area concerns group action to assure quality of production. To build up reliable markets, producers must assure buyers of a reliable supply of good quality products. However, there will always be producers who will attempt to engage in opportunistic behavior by shipping poor quality products, and such events have a negative spillover into the entire subsector. A mechanism, such as an association, is needed with sufficient enforcement powers to inspect individual shipments and prohibit the export of poor quality products. This is not so urgent when producers ship to South African markets where inferior products are immediately discounted in the marketplace. It will become important, however, as the country tries to increase its penetration into European markets.

6. Investments in Human Capital

A complaint frequently reported in the interviews conducted for this study is the limited managerial capacity that exists in the country. The documents reviewed describe the country's lack of investment in human capital. This is probably the greatest long-term problem that the country must address. It is the most pervasive problem because it influences the possibility of Swaziland successfully competing in any subsector. Borrowers from financial institutions often resist training because they perceive that their primary need is to relax their financial constraints with a loan. Yet the greatest benefit that a borrower may receive from a lending institution is the training provided with a loan, because that may have more of an impact on the future growth and success of the firm than simply borrowing and paying back a loan.

REFERENCES

Coopers and Lybrand, "Swaziland: A Guide for Businessmen and Investors," Development House, Swazi Plaza, 1993.

Day, George, "Preliminary Report on Egg Production and Marketing in Swaziland," Unpublished report, Mbabane: Market Advisory Unit, Ministry of Agriculture and Cooperatives, March 1994.

Development Bank of Southern Africa, "The Poultry Industry," Unpublished Paper, 1994.

Dixie, Grahame, "New Market Opportunities for Swaziland's Agricultural Sector," Unpublished paper, London: High Value Horticulture Plc., July 1990.

Duncan, A., "Swaziland's Economy and Agriculture: Present Situation and Future Issues," University of Oxford: Food Studies group, March, 1987.

Fink, Rodney J., et al., "Review and Assessment Report of the AID/Israel Cooperative Development Program," Washington: Management Systems International, January 1994.

Food Studies Group, "Strategic Issues in Swaziland's Agricultural Development," Oxford: International Development Centre, January 1994.

Freeman, H.J.N., "Poultry and Egg Marketing in Swaziland," Mbabane: Market Advisory Unit, Ministry of Agriculture and Cooperatives, September 1989.

International Bank for Reconstruction and Development, "Issue Paper on Investment in Swaziland: Managing the Transition," Foreign Investment Advisory Service, Washington, January 1994.

Jeebe, M.G., and H.M. Steppe, "Marketing of Fresh Produce in Swaziland," Ministry of Agriculture and Cooperatives, March 1990.

Levitsky, Jacob and Ranga N. Prasad, "Credit Guarantee Schemes for Small and Medium Enterprises," World Bank Technical Paper No. 58, Industry and Finance Series, World Bank, Washington, D.C., 1987.

Little, Peter D. and Michael J. Watts (eds.), in Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa, The University of Wisconsin Press, Madison, 1994.

Meyer, Richard L., et al., A Review of the Literature on Financial Markets and Agribusiness Development in Sub-Saharan Africa: Lessons learned and Suggestions for an Analytical Agenda, ARTS/FARA, Bureau for Africa, USAID, December, 1992.

Nagarajan, Geetha and Richard L. Meyer, "A Conceptual Framework for Studying Agri-Business Subsectors in Developing Countries," Columbus: The Ohio State University, July 1994.

NAMBOARD, "Sixth Annual Report and Audited Accounts," Swaziland, 1992.

Noman, Omar, "Swaziland: Assessment of Economic Performance Since Independence," Draft report submitted to the UNDP/Swaziland, Ministry of Economic Planning and Development, Mbabane, 1993.

Oates, Peter, "Small Rural Enterprises: Thoughts and Worries on Financial Control, Management, Income Generating Projects and Related Matters," Mbabane: EDF Microprojects, 1994.

Small Business Growth Trust, "Summary Statistics," 1994.

Small Business Growth Trust, "1994 Business Plan," February 1994.

Swaziland Fresh Produce Market, "Exports and Imports through SFPM for 1993," Swaziland, 1994.

The Central Bank of Swaziland, "Quarterly Review, 1993," December, 1993.

The Central Bank of Swaziland, "Export Trade Financing," Export Finance Division, 1994.

Thirtle, C., H. Sartorious von Bach and J. van Zyl, "Explaining Total Factor Productivity Growth in South African Commercial Agriculture, 1947-91," Working paper 93/02, University of Reading, Department of Agricultural Economics and Management, March 1993.

Union Bank of Swaziland, "Swaziland in Figures," 1994

USAID, "Commercial and Agricultural Production and Marketing Project: Project Paper Amendment II," USAID/Swaziland, January 1994.

USAID, "The Private Sector and the Economy of Swaziland," USAID/Swaziland, March 1990.

van Zyl, Johan, "Agricultural Pricing and Marketing," Land and Agriculture Policy Centre Research Paper 2, World Bank Rural Restructuring Programme for South Africa, September 1993.

van Zyland J. and J. A. Groenewald, "Effects of Protection on South African Commercial Agriculture," Journal of Agricultural Economics, Vol.39, No. 3, September 1988. wwwf

PERSONS INTERVIEWED
June 20 to July 8, 1994

Banking Sector

Mike French, Mgr. Advances, Barclays Bank
Mark S. Teversham, Managing Director, Barclays Bank
Vukani Mamba, Mgr., Development Finance, Central Bank of Swaziland
Jean-Paul Ngameni, Sr. Mgr. Credit/Training, Meridien Biao
John D. Johnston, Manager Credit, Stanbic Bank
Nick Simpson, Head of Finance, Standard Chartered
Mike Ogden, Credit Manager, Standard Chartered
Doug McLean, Manager of Business Services, Swazi Business Growth Trust
Comfort Dlamini, Credit Officer, Swazi Business Growth Trust
Celiwe Dlamini, Business Services Consultant, Swazi Business Growth Trust
Tladi Ramushu, Controller of Operations, Swaziland Industrial Dev. Co., Ltd.
Lura Xaba, Sr. Operations Exec., Swaziland Industrial Dev. Co., Ltd.
P. C. Fourie, Dept. Mgr., Rural & Ag. Dev., DBSA, RSA
J. Basson, Divisional Mgr., Entrepreneurial Dev., DBSA, RSA

Government Agencies

George Day, Marketing Section, MOAC
Sifiso Nyoni, Marketing Section, MOAC
Duke Dube, Poultry Expert, MOAC
Ntombi Simelane, Acting Poultry Manager, Mfumbuneni Poultry Farm

International Agencies/NGOs

Steve Goertz, Project Manager of CAPM, USAID
Jamie Raile, Project Manager of SBGT, USAID
Aylline L. Dlamini, Nat'l. Director, ACAT
Doyle Grenoble, Chief of Party, CAPM
Eugene McAvoy, Marketing/Organisation Specialist, CAPM Project
Ezrom Dlamini, CAPM, Mkhovu
Themba Magagula, CAPM, Mkhovu
Sarah Dlamini, National Coordinator, The Coordinating Assembly of Nongovernmental Organisations
Cathy Presland, Advisor, Imbita, Women's Finance Trust, NGO
Dumisa Ndzimandze, Ass't Programme Coordinator, European Dev. Fund
Peter Oates, Programme Adviser, Swaziland/European Union Microprojects Programme

John Pape, Swaziland Farmer Development Foundation
Clive A. Nicholson, Exec. Dir., Farmer Foundation, RSA
Shlomo Yerushalmi, Poultry Expert, Israel/Centre for Int'l Cooperation
John Caracciolo, Team Leader, Richard Woodroofe & Assoc.

Producers/Marketing Sector

Richard Hulley, Owner, Farmer's Free Range Eggs
Mariano Barajas, R. Gastaldi, Fruit and Veg.

Prepackers, Fresh Produce Market

C. M. Gule, Veg. Producer, Fresh Produce Market
Alexander Hamilton, Veg. Producer, Fresh Produce Market
Peter Thorne, Malendela Farms
Vaugn Warp, farmer
Jaap Breytenbach, owner of Family Fun
Jonathan Mey, FEDICS
Paulo Augusto Mavayeye, Mozambican trader
Ronnie Naidu, Indian trader from South Africa selling in Mabane market
Amanda Brossy, Bellami farms
Sasta Piljek, Bellami farms
Thuli Dlamini, wholesaler at Mbabane market
Phineas Makama, wholesaler at Mbabane market
Petros Dlamini, Chairman, Nguane Farmers Marketing, Import and Export
Peter Dlamini, Agriculture Manager, Vuvulane Irrigated Farm
Spensor Dlamini, Tibiyo Farms
Andrew Dlamini, Shipping Manager, Swazican
Dumile Sithole, Market Manager, NAMBOARD
Peter Venter, Coopers & Lybrand, Johannesburg, Consultant to NAMBOARD
Mark Ward, owner, Mountain Inn Hotel
R.M. Mabila, Tetsembiso Investments, Veg.producer
Aubrey Shongwe, Chief Executive Mgr., NAMBOARD
Paul Davidson, Agent, Fresh Pac, Fresh Produce Market
Flipy Zwart, Agent, Model, Durban Fresh Produce Market
Brad Butler, Wholesaler, Durban Fresh Produce Market
R.E. Naidu, Wholesaler, Durban Fresh Produce Market
Sureen Bisnath, Wholesale Supplier of Fruits and Vegetables, Durban
Sandro Gastaldi, R. Gastaldi, Pretoria Wholesale Market
Deon, Jakaranda Markagente, Pretoria Wholesale Market
Andreas Dlamini, Fruits and Vegetable controller, OK super market, Manzini
Kobus Van Zyl, General Mgr., Swazi Feeds and Chicks

Anton Erasmus, Shareholder and Manager, Valley Farm Chickens and Tri-Cash
Peter J. Hughes, Tambankulu Estates and Council Member, Swaziland Sugar Association
Dale Allen, farmer

We also interviewed several fruits and vegetable retail traders and producers registered with the CAPM project.

Research Team

Richard L. Meyer and Geetha Nagarajan, OSU
Mark R. Wood and Michael G. Dlamini, Private consultants
Ivy-Joy Makuyana and Hazel Kunene, graduate students, U. of Swaziland