

AGENCY FOR INTERNATIONAL DEVELOPMENT
PPC/CDIE/DI REPORT PROCESSING FORM

PN-ABF-836
67921

ENTER INFORMATION ONLY IF NOT INCLUDED ON COVER OR TITLE PAGE OF DOCUMENT

1. Project/Subproject Number

645-0229-[REDACTED]

2. Contract/Grant Number

645-0229-C-00-9019

3. Publication Date

Nov. 1989

4. Document Title/Translated Title

Primary Baseline Report

5. Author(s)

1. Edward Robins

2.

3.

6. Contributing Organization(s)

Chemonics International

7. Pagination

56

8. Report Number

9. Sponsoring A.I.D. Office

USAID/Mbabane

10. Abstract (optional - 250 word limit)

11. Subject Keywords (optional)

1.

4.

2.

5.

3.

6.

12. Supplementary Notes

13. Submitting Official

Kelly Wesemann

14. Telephone Number

202/466-5340

15. Today's Date

7/30/90

16. DOCID

17. Document Disposition

DO NOT write below this line

DOCRD [] INV [] DUPLICATE []

CAPM

**Swaziland Commercial Agricultural Production
and Marketing Project**

PRIMARY BASELINE REPORT

Findings and Conclusions

Edward Robins

Mbabane, Swaziland

November 1989

This report has been prepared under the United States Agency for International Development contract No. 645-0229-C-00-9019.

It is submitted to the government of Swaziland, the ministries of Agriculture and Cooperatives; Commerce, Industry, and Tourism; Education; and Finance; and to the United States Agency for International Development.

SECTION I
INTRODUCTION AND BACKGROUND

A. Preface

Swaziland is undergoing fundamental changes. Impressive economic growth, between 6 and 9 percent annually since 1986, has generated one of the highest per capita income levels in Africa. Fueled by private foreign investment and diversification, Swaziland has achieved an economic growth rate that is 350 percent above the long-term average for sub-Saharan Africa. A recent report (Investment Climate in Swaziland, 1987) indicates that new investment totaling E146 million (\$60 million) was foreseen in 1987 by the Ministry of Commerce, Industry, and Tourism for the coming years; some 10,000 new jobs were expected to be created. Exports have diversified and export earnings have increased sharply. The trade balance is positive. Swaziland is now in the category of middle-income developing countries. The development prospects for the coming decade are good.

Swaziland has achieved these notable accomplishments by creating an excellent environment for private sector development, prudent fiscal management, political stability, and concern for the traditional sector of society. Yet economic development in Swaziland still faces considerable challenges.

The population is growing annually at 3.2 percent and will release some 4,000 new job seekers each year into the formal market. At the present rate of growth, the industrial economy cannot accommodate them all. Much new industry is capital intensive, which exacerbates the employment problem for poorly trained people. The modern sector accounts for 90 percent of the gross domestic product (GDP) but employs only 24 percent of the active force. The lack of a sufficient number of skilled Swazi laborers, technicians, and management personnel further reduces participation in the modern sector. Swazi entrepreneurs, too, have been in short supply.

While Swaziland's two strongest exports are sugar and forest products, agriculture is not sufficiently productive at the present time to generate widespread agribusiness expansion or provide a large number of additional full-time employment opportunities. Swazi Nation Land (SNL), which accounts for over 60 percent of the land used for agricultural purposes but contributes only 5 percent to the GDP, is managed following traditional land use practices. While this suffices for the present, it limits investment in agriculture and sets the stage for greater disparities in the future between the traditional and modern sectors.

Considerable progress has been made toward realizing the agricultural potential of the nation, however. Since 1983, on SNL alone, the value of crop production has increased fourfold (in constant 1980 prices). More than 50 percent of the cotton in Swaziland is produced on SNL, as is some 90 percent of the tobacco. Hybrid maize has been widely adopted by SNL farmers and fertilizer use is widespread. Swazi farmers have been receptive to new ideas and technologies.

At a recent international conference in Washington, D.C., Swaziland Minister of Agriculture, Siphon Hezekiel Mamba, called for the government to take the lead in agricultural development by regulating and facilitating private sector production of goods and services. The Ministry of Agriculture and Cooperatives (MOAC) promotes this approach in its sector strategy through, inter alia, agribusiness expansion and greater agricultural productivity. The development of agribusiness is key: it generates jobs to absorb rural labor, is an incentive to increased agricultural production, makes farming more profitable, and overall is a stimulus to rural economic growth. Agribusiness development assumes a priority position in the government's economic plan for development and is the reason the Swaziland Commercial Agricultural Production and Marketing (CAPM) project was conceived.

The CAPM project is intended to play a catalytic role in promoting commercial farming in Swaziland. The identification of markets and linkages with processors, producers, and suppliers is a major component of CAPM activity. The project is "action-oriented," and will orchestrate agribusiness development.

This report describes rural homestead commercial agricultural activity at the time of project start-up. It establishes a data base against which the impact of project interventions can be monitored and assessed throughout the life of the project. Moreover, by profiling commercially active families and individuals, the data base reveals other homestead attributes associated with commercialization. By identifying key features of homestead agricultural activity and the constraints rural producers face, this report will render CAPM more capable of targeting interventions and spreading the benefits of commercialization widely.

The information in this report is derived from the analysis of the data base according to rudimentary procedures: computations of frequency distributions and cross-tabulations of key variables. Because the data base is so rich it would be desirable if its analysis were continued. In this regard, more will be learned about commercial farming in Swaziland.

B. Methodology

Three methods were employed in collecting information for this report; a review of recent documents and studies, a formal survey of rural homesteads, and interviews with selected individuals in the government and the private sector.

Among the key documents reviewed for socio-economic and agricultural data were the Swaziland Development Plan, 1989-92; the series of Land Tenure Studies (1987/88); the National Income and Expenditure Survey (1985); the Agricultural Census of 1983/84; the Swazi Rural Homestead Survey (1983); and the Keen Farmer Survey (1981). Numerous other reports cited in the bibliography also served as resources.

A formal survey of rural homesteads was the principal means of collecting data on commercial agriculture. A purposive sample was selected to focus on homesteads and/or individuals producing crops and/or animal products for sale. In some cases this production was on a low or incipient level. The second main factor influencing the selection of the sample was the gender of the respondent. The sample included approximately equal numbers of men and women. A third factor, geographic location, was also included. Overlap between location and other factors (e.g., 76 percent of lowveld respondents are women) makes less clear the variation associated strictly with agroecological zone. It appears, however, that in this survey it is negligible.

Assistance in sample selection and questionnaire preparation was provided by a "baseline working group" consisting of CAPM team members and individuals from the private sector. This excellent forum also was used to discuss the preliminary results of the survey. The participation of the private sector at the policy or programmatic level of CAPM is an extremely effective means of integrating "on-the-ground" views and concerns into the implementation of the project and should be continued throughout the life of the project.

Presurvey inquiries around the country served to identify individuals and groups marketing production to some degree. Sample selections were based on rough assessments of differences in market participation.

A pretest of the questionnaire designed specifically for this survey was administered to 11 individuals selected at random on homesteads in the middleveld region. Eventually, 154 persons, 87 women and 67 men, were interviewed by a team of eight enumerators over a one week period. The experienced survey team consisted of three women and five men.

Data from the questionnaires were processed using the Statistical Package for the Social Sciences. Frequency distributions were prepared and cross-tabulations run according to three key variables; high or low commercial activity, gender, and geographic location. After initial review of these results, additional cross-tabulations were conducted; by age of respondent (to ascertain if youthful respondents could be uniquely characterized); and by group affiliation. Many of the results by group affiliation were statistically significant as a consequence of the method of sample selection. All significant results are discussed in the body of this report.

Statistics resulting from this analysis have been used to establish the rural homestead baseline. The commercial homestead profile is drawn from significant associations between the level of homestead commercialization and other variables.

Intensive interviews were conducted with 10 individuals who, by virtue of their strong commitment to farming, promotion of local community development, and/or status in the government, were selected as key informants. This group includes title deed holders, chiefs, a minister, and members of Parliament. The results of these discussions are presented in section IV.

The decision to select the sample from commercially active homesteads, as opposed to a random sampling, was made for two reasons: the recent land tenure survey located few commercial homesteads when selecting a random sample; and the commercial homestead is the focus of the CAPM project. A "control" was not surveyed independently of the overall sample as it was considered financially unsound. Other studies, notably the recent land tenure series, can be used instead to provide information on non-commercial homesteads. The land tenure data base, supplemented by existing and yet-to-be collected agricultural census data, can serve as a "control." Many of the homesteads surveyed in the CAPM baseline, while part of the project target, will not be project clients. They, too, can be considered as part of a control group. The sampled groups are described below.

Commercial agriculture is defined as growing a crop or producing an animal product with the intention of selling it. Thus, even the most casual producers surveyed practice commercial farming to some limited extent. High commercial activity, on the other hand, is identified by the production of sugarcane, pineapple, six or more bales of cotton, high levels of poultry or milk, or more than 200 crates of vegetables. In some cases, combinations of production levels were used to disaggregate the sample.

The least commercial producers, mostly in "associations," consist primarily of women who have requested and obtained from their chiefs additional parcels of land on which vegetables can

be grown. No formal marketing arrangements are in place for these efforts, however, and the income derived from them is small. The associations surveyed are found in the low- and middleveld, and include those at Dumako, Elulageni, Masundwini, Mbikwakhe, Ndunayithini, and Qomintaba. Some received start-up assistance from the Swaziland Farmer Development Foundation. Members of these associations are sometimes part of homesteads that are more commercially active and, where this is the case, are classified in the high commercial category.

Two cooperative societies, Luve and Ntsenga, were surveyed as part of the sample. Some of the cotton and maize producers participate more heavily in the market than association members and derive greater income from their efforts. These cooperatives, as production groups, are otherwise not especially active and their individual members operate largely independently of one another. Some producers in these groups are highly commercial.

Surveyed members of production schemes generally represented the higher-end of the commercial scale. Surveyed schemes are more comprehensively involved in production than the other groups. Inputs are purchased jointly and/or available to the group, production resources are shared, and marketing arrangements are more clearly fixed. Two kinds of schemes are represented in the survey: the type at Mphetseni and Vuvulane, initiated through government efforts to increase Swazi participation in high-end commercial production; and the type in which citizens have organized themselves for commercial objectives.

This latter type includes the Usuthu Young Farmers, a small collection of unmarried men leasing land from the Anglican church for milk production; the Velezizweni Farmers, producing vegetables on irrigated land; and the Pilani Poultry Producers, some 99 individuals dressing broilers for sale in Mbabane or, alternatively, selling them live to vendors at the farm gate.

The other type of scheme was analyzed in earlier research (Levin, 1989 and de Vletter, 1987). Included in these schemes are the Mphetseni Pineapple Growers and the Vuvulane Irrigation (sugarcane) Farmers.

These two groups, at one time, were thought to be models for Swazi participation in production on repurchased deeded land. Both cases, however, have been troubled. The Mphetseni group appears to have overcome some of the financial difficulties which earlier contributed to its tenure insecurity. Some members have succeeded in purchasing their holdings outright. This may be the only instance of deeded land being purchased by Swazi farmers under a scheme format.

Vuvulane farmers, leasing land once owned by the Commonwealth Development Corporation and later the Swazi Nation, are among the most successful agriculturalists in the country. Under contract to produce sugarcane on 70 percent of their irrigated land, the Vuvulane farmers have had a regular and relatively high income for more than 20 years. A confusing tenure status, however, has generated much discontent among them. Neither the purchase of land over time nor its conversion to SNL is permitted, leaving Vuvulane farmers with an uncertain fate. On the commercial level Vuvulane farmers are among the most successful of those surveyed, however the sustainability of their endeavor is in question.

The variation in commercial activity and tenure circumstances among the groups sampled in the baseline survey represents the gamut in today's Swaziland. As the results indicate, each commercial effort has a set of accompanying constraints. It is the association of specific sets of constraints and specific production activities which is notable. Constraints associated with one activity may not necessarily be binding under different production arrangements.

C. Project Description and Summary

This report satisfies two immediate needs of the CAPM project. First, it provides baseline data for rural homesteads commercializing agricultural production. Second, it offers information about potential client groups. Baseline data for the target population are needed to monitor changes resulting from CAPM interventions and to eventually assess overall project impact. The attributes of potential client groups must also be determined to design interventions which are suitable and will widely spread the benefits of commercialization.

Data were collected through a review of pertinent reports and surveys, key interviews with Swazi notables, and, principally, a survey of 154 rural men and women. The survey sample, selected purposively to include individuals already commercializing production to some degree, albeit limited in cases, consisted of 87 women and 67 men from three agro-ecological zones: high-, middle-, and lowveld. All respondents were members of a production group, an association, a cooperative society, or a scheme. Their average age is 47 years.

Data analysis consisted of tallying response frequencies disaggregated by gender, agro-ecological zone, and level of commercial activity. The baseline is a statement of frequency distributions by the first two of these variables. The disaggregation of the sample into high and low commercial homesteads, using the third variable, generated the commercial homestead profile. Additional data analysis yielded some variation according to the age of the respondent. Differences

among the sampled groups were often significant as a result of differences in their production focuses.

Following, the results are summarized and the most significant findings of the research highlighted. A list of the findings, with particular implications for the CAPM project, is presented thereafter.

Throughout the report, the Swaziland emalangeni (E) is cited. The emalangeni, which trades at par with the South African Rand, was listed as E2.6 = U.S.\$1 in early 1990.

1. Summary of Findings

- o In Swaziland, rural homesteads earn nearly 60 percent of their total income (i.e., cash and in-kind) from cash wages and other cash sources. Less than 5 percent of cash income comes from agriculture. An additional 32 percent of total income is from value-in-kind received from agriculture. Seventy-five percent of the homesteads in the baseline survey, however, cite sales of crops and livestock products as their most important sources of income. The surveyed group is, essentially, commercial.
- o The efforts of these commercial producers seem to be fully accepted by their communities; there does not appear to be a "cultural constraint" limiting commercial development.
- o The extent of commercial agricultural activity is notably varied. At the high end, outnumbering low-end producers by a ratio of 35-to-1, are homesteads earning more than E2,000/year from sales of their strongest agricultural product. By way of contrast, only four of 69 respondents in associations fall into this category. High-commercial producers achieve these levels through production and sales of pineapple (E10,000 - E30,000), sugarcane (E10,000 - E30,000), cotton (E5,000 - E25,000), milk (E5,500 - E8,500), and poultry (E1,500 - E5,000). Some maize and irrigated vegetable producers also are highly productive.
- o For some crops and animal products, notably sugarcane, pineapple, cotton, and milk, virtually 100 percent of production is sold. Two-thirds of the homesteads producing maize are selling. The corresponding figure for poultry is 1/2. For livestock, only 6 percent of the homesteads are marketing. Women, individually and in groups, generally produce and sell lower quantities than do men. They also sell lower proportions of what they produce. Some women supplement homestead production for family consumption with vegetables from their association gardens.

- o Producers on the low commercial end are primarily women, members of informal production associations, and market vegetables for cash. In their homesteads, these women are usually without daily male agricultural labor. Their male homestead heads may be absent for periods of six months or longer each year. While these homesteads, which depend more on wages as a source of income than is the case for the sample as a whole, may not be cash poor, their women members seem to be. They report a need for cash to purchase school supplies and other family necessities. Many of them have become involved in associations to make an attempt at earning income from agriculture.
- o Homesteads generally depend upon family labor, although more highly commercial homesteads hire labor. Absentees for more than six months of the year are rare. Where they occur it is more likely that an adult "child" is reported to have left the homestead to work elsewhere. Heads of homesteads are more notably absent in low commercial groups but not in large numbers.
- o Overall, the age of the homestead head is higher than for the population at large, indicating that their homesteads are also "older." This is consistent with findings that homesteads in their "consolidation" phase (i.e., with grown children and greater resources) predominate in commercial agriculture.
- o Income earned from agriculture, while the main source for most surveyed homesteads, still is supplemented by wage income in 2/3 of the sample. Respondents indicated a preference for investing in agriculture if additional cash resources were available. It can be argued that wages and income from agriculture are insufficient for many homesteads to make such investments.
- o It is unclear how many homesteads on the low commercial end are limited by the cash constraint. Seventeen percent of the total sample report cash to be the factor most limiting profitability from agriculture. This may be due to homestead resources being allocated to wage earning or because they are resource poor. Evidence, however, suggests the latter. One-fifth of these homesteads, constituting 96 percent of the category responses, indicated that two years ago they were not producing for sale at all. When considered in light of their desire to invest more in agriculture (e.g., machinery, equipment, and livestock), it appears they are at an incipient stage of emerging commercial production which, if income levels increase, could be up-graded.

- o The "resource poor" character of these homesteads is further indicated by their relative low ownership level of agricultural implements and their limited use of production inputs. Transport for marketing produce is problematic for some of them and accounts for the widespread use of retail sales at the farm gate. They report a relatively higher dependence upon agricultural extension agents for advice in matters of production. They see "development" in the increased presence of projects and schemes.
- o Women, 75 percent of whom are classed in the low commercial group, are further disadvantaged by the difficulty they have in obtaining credit (i.e., they are not the sole owners of assets). While overall use of credit is low in the sample, it is mostly high commercial producers who have sought and obtained bank loans and used credit to purchase inputs. Credit generally is disliked by respondents and even those individuals who have obtained it would not necessarily do so again.
- o It is worth noting that not all women respondents are new to commercialization. The Pilani Poultry scheme, for example, a high-end commercial group, is composed of 99 individuals--94 of whom are women. They are a study in perseverance and business acumen. Begun in 1982, with contributions of E250/person (about \$200 at the time), and mostly selling broilers to members and neighbors, reinvestments of profits have seen their operation grow and their market expand to Mbabane. Income levels from broiler sales are reported to be in the E3,000 - E4,000 range. An earlier study (Sibisi, 1981) identified some of these women as "keen" farmers.
- o While the use of agricultural inputs overall has increased since measured in the seminal Rural Homestead Survey (1979), tractors and fertilizers are less likely to be used by low commercial respondents. These individuals are also less likely to rent or borrow land, an indication either that they still can be more productive on the land they possess or are unable to do so. The need for additional parcels of land to be profitable is cited by 61 percent of the sample, indicating that access to sufficient land is itself a factor in production. Many respondents are not sure of being able to obtain more land when they need it.
- o A common response to the land problem is for individual cultivators to organize into some form of production group. Many respondents cultivate land supplemental to their homesteads in this way. Collective endeavors organized and managed by producers are reported to be a

desirable form of production grouping. Cultivators call such collective efforts "schemes." The scheme approach is comprehensive, from input supply, to resource sharing, to marketing. Sharing of agricultural implements, for example, is high in schemes and seems to obviate the need for individuals to own implements. The surveyed cooperatives, by way of contrast, function more to distribute inputs than to organize production and sale. Members of the surveyed cooperative societies have high rates of individual ownership of implements. While it is not fully clear why cooperatives are less appealing than schemes, the more comprehensive and self-initiated approach of the schemes seem to be key factors in their popularity.

- o Irrigation is another new means of land use management. It is used by low production associations and by high production schemes. Because of the difference in production levels between associations and schemes, irrigation in and of itself does not appear to a significant step toward increasing production. Factors of production management also are important in determining output on irrigated land. The irrigation scheme at Velezizweni, conceived and managed by farmers themselves solely for commercial objectives, appears to be a model suitable for replication in other areas.
- o Although the availability of inputs is generally not problematic, most homesteads report that structures for livestock, grain storage, and stocking inputs are inadequate for their needs. An additional problem for low commercial groups is the lack of nearby access to a telephone. Unable to inform traders, for example, of the readiness of their crop, they may encounter a glut when they try to market their produce.
- o All available markets are used by surveyed individuals; most of them use more than one market. The National Agricultural Marketing Board (NAMBoard) is preferred by some producers because it takes their entire marketable stock. The uncertainty of the eventual sale price and delayed payment are two commonly cited objections to NAMBoard, however. Local and farm gate retail markets are commonly employed--price can be negotiated and payment is received at the sale--but the seller never knows if the entire supply will sell or not. Those producers familiar with contract markets prefer them for some products.
- o Agriculture, while not remunerative for all respondents, is nonetheless the most frequently cited area in which individuals would invest more money if they had it. This is so for both men (46 percent) and women (24 percent).

Farming, too, is the career choice most commonly cited by parents for their children. This may signal readiness among the rural populace for opportunities for increased commercialization.

2. Implications for CAPM

- o Interest in and support for commercial agriculture is widespread in Swaziland. There does not appear to be a "cultural constraint" limiting interest in commercial farming. There is consistent evidence in the survey for commitment to farming; extra money would be invested in it, children are encouraged to pursue it, and homesteads currently depending more on wage than agricultural earnings indicate interest in shifting resources to farming.
- o Determination to succeed at agribusiness is evidenced by poultry producers (Pilani) reinvesting profits over a period of 10 years, sugarcane and pineapple producers (Vuvulane and Mphetseni) overcoming difficulties to become major commercial actors, young men undergoing training and taking on risk in dairy production (Usuthu), collaboration and resource sharing (Velezizweni) for irrigated vegetable production, and the many associations of women joining together to earn cash for their families' welfare. For a well conceived new opportunity, even the least commercial of these producers could be expected to exhibit drive and commitment. CAPM should capitalize on the commitment farmers make in these groups and others like them by considering them as clients for its commercial activities.
- o Low commercial producers deriving most of their income from off-farm wages may be in the process of moving to full-time farming. They could be a group with the potential to take advantage of new opportunities.
- o Use of credit is limited among low commercial producers and relatively higher among high commercial producers. High commercial producers are more likely to have the collateral needed to obtain credit and the income to cover the interest on loans. The credit "constraint" may be disguised among low commercial producers by their practice of using cash. Limited use of credit may be one factor constraining their expansion into higher commercial activity. Further work on the credit issue needs to be done.
- o There are indications that surveyed individuals do not distinguish between income and profit. Even in high commercial groups (e.g. Usuthu), sound accounting and management practices seem to be lacking. Training in

business fundamentals could have a large impact in this area.

- o More general awareness in the rural community of commercialization--its problems and prospects--is needed for CAPM to have a significant impact. This requires the support of the government for networking.
- o Surveyed individuals report interest in shifting parcels from maize to other profitable crops. CAPM should not encounter a cropping pattern constraint to the introduction of new commercial opportunities. Swazi farmers have demonstrated receptivity to new production arrangements and technologies.
- o Traditional land management is amenable to change. Block farming and irrigation are two common ways to make homestead land more productive. CAPM will find chiefs receptive to new and profitable agricultural opportunities on homestead land.
- o Collective endeavors which are producer initiated and managed, such as the Pilani or Velezizweni models, are a well-liked approach to production. They are comprehensive, from input supply to marketing. Contract marketing, too, is supported by those who have used it. Market reliability, a common feature of these two arrangements, has great appeal to Swazi producers.
- o A small number of high commercial producers are unique in that animals and animal products are their principal source of homestead income. Livestock, particularly cattle, are an investment for many Swazi homesteads and, like money in the bank, are "withdrawn" (i.e., sold) only when needed to meet expenses. The market for livestock may be an attractive one for those homesteads willing to sell their animals. It would be informative to know who sells livestock and why.
- o In general, members of production schemes own fewer cattle. These producers may be investing in crop production rather than in livestock. This could be investigated as part of the inquiry suggested above.
- o The crop producers are unable to sell most often is vegetables. There is currently a great interest in vegetable production for market; a widespread perception of high demand exists. The link between the producer and the market apparently needs to be improved. Estimates of total market demand need to be determined so that over-expansion does not occur.

- o Farming is the first choice for additional investment (and careers for children) among men and women, and high and low commercial producers. This indicates widespread receptivity to opportunities in commercial farming.
- o The data base compiled by this survey defines attributes of commercial homesteads in the target population at the time of project start-up. Over the coming years, factors entirely exogenous to CAPM will have an impact upon these homesteads. Those clients reached directly by CAPM interventions, if they have not been already "measured" by the baseline survey, should be statistically characterized through the collection of additional data. This will serve as a basis for monitoring change and impact resulting from specific CAPM-promoted efforts.
- o The "baseline working group" formed from CAPM team members and individuals from the private sector is an effective forum for integrating the pragmatic observations and concerns of business people into the programming of CAPM activities. The group should continue to meet and play this key role throughout the life of the project.
- o Two questions were asked on the subject of change experienced by respondents during the "previous two years." These questions should be asked again in the impact assessment to indicate additional change during the life of the CAPM project.

It can be difficult to isolate factors most responsible for social and economic change in the development environment, one that is not "controlled" in the experimental sense. The CAPM project can approximate the experimental situation by comparing target and client homesteads. While the CAPM "target"--mostly SNL homesteads--will certainly be influenced by numerous factors exogenous to CAPM itself, comparisons between target and client homesteads ("clients" being individuals, groups, and/or homesteads participating in activities promoted directly by CAPM) will indicate: 1) the extent to which overall commercial development is occurring; and 2) the contribution CAPM is making to that development. This distinction is less complex than it may at first appear.

Some of the impact of CAPM will be largely known and identified, especially by Swazis themselves, even before an impact assessment substantiates their observations. These views should guide the inquiries of the impact assessment team. Additionally, measurable differences between the project's clients and others can be interpreted to be the result of project interventions even though other factors also would have affected client welfare.

The first question, on change in production for sale, reveals that more than half the sample at this time is producing more for sale than they were two years earlier. Of the 22 producers new to commercialization, (those not producing at all for sale two years ago) all but one are in the low commercial group. When asked again in two years, this question will furnish an interesting view on the evolution of commercialization in the target and client populations.

The second question focuses on improvements in communities and personal situations. Comparisons in two years can be made with these statistics (i.e., community improvements reported by 59 percent of the sample and personal improvements by 41 percent) to indicate change in overall quality of life.

SECTION II

EVALUATION OF BASELINE REPORT

Nearly 80 percent of the Swazi population resides in rural homesteads. Agriculture contributes to the livelihood of virtually all of them. Few homesteads, however, are capable of deriving all the cash income they require from agriculture alone. In the aggregate, farming accounts for some 5 percent of total cash income for rural homesteads. Cash, from wages or other sources, accounts for nearly 60 percent (Income and Expenditure Survey, 1985). While homesteads depend upon farming, it is exclusively by choice or circumstance.

The individuals included in the primary baseline survey reside on homesteads. Some of them, in the Vuvulane or Mphetseni schemes, do very well at commercial agriculture. The majority of respondents, however, while deriving the better part of their income from crop and livestock sales, earn considerably less. The great range in commercial activity of individuals surveyed is accompanied, accordingly, by variation in other homestead characteristics. In this section the diverse attributes of rural homesteads are described to constitute a data baseline.

The baseline is presented by subject area. The subject categories include: sample composition; homestead human resources; homestead physical resources; agricultural production; marketing; income and expenditure; and quality of life. Actual tallies and percentages are noted in the tables.

All percentages have been rounded.

A. Composition of Sample

1. Sex and Location of Respondents

Of 154 respondents, 87 (56 percent) are women. Women in the sample predominate in the lowveld, where they have recently formed associations for vegetable production. These informal groupings are a first venture for many women into commercial production. Many women seek their own source of income to meet homestead expenditures, especially for school fees and materials for their children.

2. Age of Respondents

The average age of respondents is 47.4 years. The median is 48 years. The mode is 43 years. Men and women are, on the average, 52.1 and 43.8 years of age, respectively.

Table 1. Sex of Respondent by Geographical Zone

	Highveld	Middleveld	Lowveld	Total
Men	9 or 38%	49 or 53%	9 or 24%	67 or 44%
Women	15 or 62%	43 or 47%	29 or 76%	87 or 56%
Total	24 or 16%	92 or 59%	38 or 25%	154 or 100%

Note: In some tables, both respondent number and percentage is given. In future tables, these figures will be separated with a slash (/).

3. Marital Status

Eighty-eight percent of the respondents are married. This includes 93 percent of the men and 85 percent of the women.

Table 2. Marital Status

Married men with one wife	49/32%
Married women	75/48%
Married men with more than one wife	12/8%
Widowed or divorced	9/6% (1 man, 8 women)
Single	9/6% (5 men, 4 women)

4. Education of Respondent

The average number of years of schooling for the entire sample is 4.3, with a median of four years. The mode is zero years, which includes 50 percent of the men and 51 percent of the women. Overall, women have slightly more schooling than men (4.6 years to 3.8 years, respectively). The 1976 population census also reports low levels of education, especially for older individuals. In the range of 45 to 49 years (the average for this survey), the census showed 62 percent of the population have no formal education.

5. Residence on a Homestead

Except for three unmarried men in the Usuthu Dairy group and one other, all respondents reside (i.e., sleep five nights or more each week) at a homestead. Some respondents from the Vuvulane and Mphetseni schemes, despite residences of 20 years or more in their areas, report their homestead as where

their parents live. In the strict sense, they do not reside where they consider their homestead to be. As nearly all their economic and other daily activities take place at their residence, however, they responded to this survey as though their residence is their homestead.

6. Membership in a Production Group

There are three kinds of production groups in this survey: associations, cooperative societies, and schemes. Associations are informal, low production, unregistered aggregations. They are a rudimentary form of production group. Surveyed associations include Mbikwakhe, Masundwini, Elulakeni, Dumako, Ndunayithini, and Qomintaba. Cooperatives are formal production groups registered with the MOAC. They typically buy production inputs and resell them to their membership. They may also play a role in marketing, although that was not the case for the cooperative societies in the baseline sample, Luve and Ntsenga.

Schemes also are formal production groups. They are active in all phases of production, from input purchase and distribution to marketing output. Some were formed through a government of Swaziland (GOS) program, as was the case for Vuvulane and Mphetseni. Others were created through the initiatives of private individuals, such as Velezizweni, an irrigation scheme formed by homesteaders expressly for commercial objectives. The Usuthu Dairy group, a scheme, is well-organized for production and marketing, producing milk at a high level. The Pilani Poultry group, another scheme, is not registered as a cooperative although members refer to it as a cooperative and operate cooperatively in the production and sale of large numbers of broilers.

The highveld includes only schemes. All the cooperatives are located in the middleveld, which also includes 57 percent of the associations and 1/3 of the schemes. Seventy-five percent of the lowveld respondents are members of associations, while the remainder are part of the Vuvulane scheme.

Vegetable production is the focus of associations, although occasionally a member independently produces cotton or livestock for market. Schemes, by contrast, concentrate mostly on a single product: sugarcane, pineapple, dairy, or poultry, with supplementary production of cotton, maize, or vegetables. The Velezizweni irrigation scheme produces high volumes of vegetables. The cooperative societies, in the dry middleveld, produce cotton, maize, vegetables, and legumes for market.

Table 3. Location of Production Groups

	Highveld	Middleveld	Lowveld
Dumako			association
Elulageni			association
Luve		cooperative	
Masundwini		association	
Mbikwakhe		association	
Mphetseni		scheme	
Ndunayithini			association
Ntsenga		cooperative	
Pilani	scheme		
Qomintaba			association
Usuthu		scheme	
Velezizweni	scheme		
Vuvulane			scheme

Only nine of 46 (20 percent) scheme respondents own over 20 cattle. The larger cattle owners are in the cooperatives and associations.

Table 4. Sex of Respondent by Membership in a Production Group

	Cooperative	Association	Scheme	Total
Men	29/78%	10/15%	27/59%	66/44%
Women	8/22%	59/85%	19/41%	86/56%
Total	37/24%	69/45%	46/30%	152/100%

Note: Two respondents did not indicate membership in a group.

B. Homestead Human Resources

1. Homestead Residents

There are, on the average, 8.7 residents per homestead (i.e., at the homestead for six months or more each year). This includes 1.3 men, 1.9 women, and 5.5 children. National figures for the rural population are 7.97 residents per homestead, of which 1.62 are women (Agricultural Census, 1983/84).

Absentees, for more than six months each year, are rare. Nearly 70 percent of the sample (105 respondents) report no absentees at all. Other homesteads report a total of 22 men, 19 women, and 46 (adult) children absent.

2. Homestead Head

Twenty-one women, or 14 percent of the sample, are heads of homesteads. This is less than the national figure of about 21 percent. Their average age is 53.4 years. Male homestead heads in residence number 108, or 70 percent, of the sample. There are 10 (6 percent) male homestead heads not in residence. The remaining 10 percent include individuals not residing in homesteads and other responses. The average age of a male head of homestead is 53.2 years.

The land tenure survey (Marquardt, 1989 draft) reports average age of homestead heads to be 50.5 years. The higher figure in this survey may be a function of the relatively higher participation of the sample in commercial agriculture than is the case for the population at large. The land tenure survey showed that income from agriculture increases as the homestead advances through its life cycle.

The same survey indicates that women heads of homesteads, mostly widows, have less land, grow less maize, leave larger parcels fallow, have less land in cash crops, and own fewer cattle than their male counterparts. They derive more of their income from sales of non-agricultural, on-farm products (i.e., handicrafts).

3. Education

The average number of years of schooling for homestead heads is 3.7, with a median of three years. The mode, which includes 40 percent of the sample, is zero. Nationally, 50 percent of homestead heads have no formal education (National Income and Expenditure Survey, 1985). Wives of homestead heads have four years of schooling, on the average. Interestingly, women report higher levels of schooling than do men.

There are .91 children per homestead with 12 years of schooling; 1.1 per homestead with 10 years; .91 per homestead with seven years; and those with fewer than seven years number 2.5 children per homestead.

4. Homestead Labor

In 62 percent of the homesteads, some members work elsewhere during the day. Generally, this is in an urban center in Swaziland. There are a relatively high number of "children" reported to be working off the farm--they are actually adults (over age 16) listed as children by their parent.

Table 5. Distribution of Homestead Labor

	Men	Women	Children
Homesteads reporting off-farm workers	42%	22%	26%
Average number working on the farm	.9	1.5	3.9
Average number working off the farm	.6	.4	.8

It is significant that 51 women reported that no males work on their homestead. Many of these same women are members of low commercial production groups. Their personal need for cash under these circumstances may be a factor motivating them to pursue commercial vegetable production. All women respondents working in the Republic of South Africa (RSA) are from the lowveld.

Homesteads reported no instances of members leaving their jobs or schools during the year expressly to help with production on the farm.

Table 6. Site of Off-Farm Wage Earnings

	Swazi/Urban	Swazi/Rural	RSA	Urban & Rural	Other
Men	19	5	3	4	4
Women	40	8	8	10	0
Total	59	13	11	14	4

Note: 53 cases are missing.

C. Homestead Physical Resources

1. Size and Tenure of Holding

The average size of an individual land holding is 12.2 hectares (ha). This is considerably larger than the national average of 1.94 ha. The average in this survey is skewed by the large holdings of about 10 respondents. The mode, or most common size of holding, is 2 ha. The median, or mid-point for all responses, is 3 ha. There are 51 cases missing in these computations; respondents whose land has not been measured were included in the "missing" category and the size of their farms were not recorded.

Most respondents (131 or 85 percent) operate on SNL. The remainder are in a more ambiguous tenure situation. Two individuals report ownership of their land; one from Mphetseni and the other from Vuvulane (where in all likelihood the holding is leased). The other 21 (14 percent) are lease holders. In most cases at Mphetseni, individuals are acquiring deed to the land. At Vuvulane the lease arrangement is of uncertain duration.

2. Agricultural Implements Owned

Ownership of selected agricultural implements is a good indicator of homestead investment in agriculture. De Vletter's 1983 survey serves as a basis for examining change over time in this area.

Women respondents report individual ownership of fewer items. Of those who do not report ownership of a plough, for example, 75 percent are women. Sixty-seven percent of those who do not report ownership of a storage shed are women. In groups, however, women's access to implements is greater. Over 70 percent of women respondents affirmed group ownership of a crop sprayer. While tractors are owned in equal numbers by men and women individually, men predominate group ownership of tractors (mostly at Vuvulane, Mphetseni, and Velezizweni). Many more women than men (68 to 35) do not own tractors either individually or in groups.

Individual ownership of agricultural implements is dominated by respondents in two surveyed areas: Luve and Ntsenga. Fifty percent of all respondents individually owning five implements or more are found in these two cooperatives. The same is true for 40 percent of the owners of crop sprayers and ploughs, 35 percent of the bakkie owners, 33 percent of the owners of grain tanks, and three of the eight owners of lorries. Nearly 30 percent of all tractor owners are members of a single group, the Luve cooperative society.

Table 7. Agricultural Implements Owned

	Individually Owned	1983 Survey	Group Owned
Grain tank	111/72%	35%	0/00%
Plough	82/53%	51%	16/10%
Storage shed	78/51%	--	30/20%
Crop sprayer	41/27%	12%	42/27%
Bakkie	36/23%	--	6/4%
Tractor	21/14%	2%	28/18%
Lorry	8/5%	.9%	1/.6%

3. Telephones and Structures

Only 53 respondents (34 percent) can make and receive telephone calls near their agricultural operation.

Nearby access to a telephone can make a difference in production and marketing. Some vegetable producers report poor communication with NAMBoard. For example, a small vegetable producer may reach a market only to discover it is satiated. The producer's vegetables may rot and discontent with NAMBoard as a marketing mechanism develops.

The number and condition of structures used for agricultural purposes, such as stocking inputs and storing grain, affects the efficiency and profitability of farming. Seventeen percent of the sample report the structures they use are adequate. The remaining 127 individuals indicate problems with structures that are inadequate for their needs.

D. Agricultural Production

1. Production and Sales

Quantities by crop and animal product were obtained for production and sale. Standard measures were used (e.g., bales, bags, crates, and loads). Enumerators were asked to round off to the nearest 1/2 unit. Given normal human error in accurately recalling information, production and sales figures should be taken as rough estimates. In most cases, a production season from planting to harvest was the standard measure of time. For poultry and dairy operations, however, annual production was reported.

While some homesteads have been producing commercially for a generation or more, others are new to commercial agriculture. Fifty-two percent of the respondents reported higher levels of commercial production now as compared to two years ago. Thirteen percent reported lower commercial production and 19 percent indicated production is about the same. Interestingly, of the 14 percent who reported no production for sale two years ago, 86 percent are women. This response indicates many women are new to commercial production but are interested in earning cash.

Surveyed women report lower levels of production and sales than male counterparts, particularly for maize, vegetables, and groundnuts. Respondents in the lowveld, 76 percent of whom are women, sell lower proportions of maize and vegetables as well. This suggests they are supplementing homestead production for family consumption with vegetable production in association gardens (although they did not report the handfulls they take from the gardens).

Table 8. Quantities Produced and Sold

	Homesteads Producing	Average Quantity Produced	Average Quantity Sold	Homesteads Selling
Maize (bags)	90%	49 [median=30]	29 [10]	58%
Cotton (bales)	21%	34 [10]	34 [10]	21%
Sugarcane (loads)	06%	64 [44]	64 [44]	06%
Vegetables (crates)	58%	177 [40]	169 [36]	57%
Groundnuts (bags)	19%	6	4	12%
Beans (bags)	41%	7	6	29%
Poultry	20%	561 [50]	401 [8]	11%
Eggs	02%	17,600	15,800	02%
Dairy (liters)	03%	4,500	4,500	03%
Livestock kept	40%	29 [16]	3	06%
Fruit (pineapple)	14%	1,300	1,300	13%
Swt. potatoes (bags)	16%	56	53	11%
Potatoes (bags)	10%	89	79	08%

2. Constraints to Making Money in Agriculture

Respondents were asked to identify the three factors most constraining their ability to make money from agriculture. The sum total of all responses follows. Comparisons are made with the Rural Homestead Survey (1983).

Cash for the purchase of inputs, followed by the availability of inputs are the most common responses. Overall, input availability does not seem to be a problem. Cash is used almost exclusively for purchases of inputs, suggesting it is constraining for only a minority.

Table 9. Constraints to Making Money From Agriculture

	Baseline	1983
Insufficient cash	17%	--
Lack of inputs	13%	--
Lack of water	10%	16%
Poor soil	09%	--
Insufficient land	08%	21%
Other (e.g., transport)	08%	--
Disease/infestation	07%	02%
Low market demand	07%	05%
Shortage of technical assistance	02%	05%
Shortage of labor	02%	11%
No response (mostly 3rd choices)	17%	

Fifty-six percent of the respondents said sales from agriculture pay the costs of production, while 18 percent said that they sometimes do. Twenty-six percent reported sales are insufficient to pay production costs or said they were unsure. Women predominate in this last category.

These responses are identical to those obtained for the question on whether or not a profit is made from agricultural sales. It is likely that respondents understood the two questions to be the same and did not distinguish between income and profit. It is equally likely that respondents do not include

the cost of labor as a factor in production. An improved ability to manage farm finances will be needed as families become more commercially active. This represents an area of potential CAPM intervention in the form of a short training program.

3. Production Decisions

A determination of who in the homestead or group decides what to produce and sell and which inputs to buy can help planners to spread benefits more equitably. In the surveyed homesteads these decisions are made by the head or spouse of the head. There was confusion among enumerators, however, on how to record responses to this question; this precludes disaggregating male and female responses. An earlier study (Sachs and Roach, 1983) indicates that much agricultural decision-making is shared or "dispersed" in the homestead.

The baseline survey indicates that individuals often make their own decisions (33 percent). However, a significant number of respondents stated decisions are made either collectively (24 percent) or by a leader/manager (14 percent). An agricultural extension agent is consulted for production decisions by 15 percent of the sample--87 percent of whom are women. Women, especially in newly formed associations, depend upon extension agents to assist them in determining what to produce commercially.

4. Inputs Used

In the survey of Swazi rural homesteads conducted by de Vletter, use of fertilizers, pesticides, tractors, and irrigation is generally associated with higher incomes from crop sales. Table 10 describes inputs used by individuals in the baseline and earlier homestead surveys. Responses cite input use on individual homesteads as well as in group operations. In some cases, respondents are using inputs both on their homesteads and for group production. When considered in total, input use is up since 1979 (the research period for the survey published in 1983).

Input use is not significantly different between men and women. Exceptions are higher usage of tractors by males and women's prevalence in the use of fencing. The latter may be a reflection of the need to keep cattle out of lowveld vegetable gardens.

Availability of inputs is not problematic for respondents. Nearly 3/4 report inputs are available when needed.

Widespread use of irrigation by groups is notable and is a factor in commercial production, as reported in the next section.

Table 10. Agricultural Inputs Used

	Individual	1983 Survey	Group	Individual & Group
Manure	73/47%	50%	18/12%	33/21%
Oxen	71/46%	46%	6/4%	7/5%
Fertilizer	66/43%	51%	37/24%	38/25%
Pesticides	61/40%	46%	38/25%	39/25%
Tractor	61/40%	40%	27/18%	23/15%
Hired Labor	53/34%	--	14/9%	8/5%
Fencing	38/25%	60%*	41/27%	20/13%
Irrigation	20/13%	7%	56/36%	2/1%
Rent/borrow land	15/10%	6%*	14/9%	--

Note: * = Land Tenure Survey, 1987

5. Agricultural Extension

When the earlier rural homestead survey was conducted (de Vletter, 1983), income from crops was significantly associated with visits from agricultural extension agents. Sixty-two percent of the respondents in the baseline survey reported they were advised by agricultural agents last season. Ninety-one percent of the sample indicated a desire to receive more advice from agricultural agents.

Of those insufficiently advised, 83 percent are located in the middleveld and mostly in the two cooperative societies. In that region there is a correspondingly higher percentage of respondents wanting to receive advice from an agricultural agent. In all three areas, women are advised equally as men.

6. Use of Cash and Credit

Eighty percent of agricultural production costs are met with cash from personal sources. A minority of respondents, 14 percent, use bank credit (the remaining six percent borrow from their group or in the informal market). Of those who use bank credit, 70 percent are men. Swazi women, in general, are not the sole owners of assets and thus lack collateral for a loan; a man must act as a guarantor for a woman who seeks a loan (Gamedze and Kamalkhani, 1989).

Sixty-five respondents have attempted to obtain credit; 75 percent of them have gone to banks. Of those who filed for credit, 88 percent were successful. Yet only 56 percent report that they would try again; high interest rates and the fear of collateral collection for unpaid debt are the most common reasons. There are indications in individual responses that credit is an undesirable option.

The use of cash predominates in the sample. All but three respondents use cash for some or all of their agricultural purchases. A majority, 157 (69 percent), said they use no credit at all. Credit is more commonly used among high-level commercial producers. Limited use of credit by low commercial producers may be a factor constraining their commercial expansion. A "cheap" source of credit should be pursued in a more complete investigation of the issue.

Table 11. Use of Cash and Credit to Purchase Agricultural Inputs

	Cash	Credit	Both
Seed	123/80%	20/13%	11/7%
Pesticides	119/77%	15/10%	20/13%
Storage	119/77%	2/1%	33/21%
Fertilizer	107/70%	22/14%	25/16%
Labor	103/67%	6/4%	45/29%
Transport	92/60%	15/10%	47/30%
Equipment/machinery	80/52%	15/10%	59/39%
Water	56/36%	9/6%	89/58%
Feed	45/29%	6/4%	45/29%

7. Land Use

The recent series of land tenure studies state "land tenure is not a constraint" to agricultural production as it is now practiced in Swaziland. The baseline survey calls into question this statement. A large number of respondents (94 or 61 percent) indicate that they require more land to be profitable at commercial agriculture and, moreover, are not sure (52 percent) of being able to obtain it. Ironically, many production activities of surveyed individuals already take place off the

homestead and, in the view of many observers, land currently under production is not used optimally.

Agriculture investments will likely be made in equipment and machinery rather than in land. Long-term, sustainable measures for land improvement and increased production, such as soil control, agroforestry, and improved fallow, are not cited as means to increase production. Additionally, as discussed in the next section, some high commercial producers use rented or borrowed land. It can be hypothesized that customary land management practices do not encourage the productive use of land because, lacking formal tenure security, homesteaders are reluctant to improve the land resource. The land tenure link to commercial agricultural production should be carefully reassessed to make certain productivity increases occur on SNL.

Women demonstrate less of an interest than men in acquiring more land. This may be an indication they are not using the land they have to its full potential.

Table 12. Land Acquisition

	Yes	No	Don't Know
More land needed for profitable agriculture	94/61%	60/39%	--
Can more land be attained	13/08%	36/23%	44/29%

Manure and fertilizer were attributed by respondents as the best means of improving land productivity. Notable is the negligible reference to soil control, agroforestry crops and other green manures, and improved fallow. It is not clear if this is because these methods have not been advanced in Swaziland or because they are long term.

While acquisition of additional land for agriculture interests some homesteaders, others would consider using land already under cultivation in new, more profitable ways. Sixty-two percent of the sample indicated they would reduce the land allocated to maize cultivation in favor of another, more profitable crop. Nineteen percent said they have shifted from maize to either cotton, sugarcane, or vegetables. Under conditions where maize yields can be increased through more intensive cultivation, new cropping patterns are feasible. Women were less interested in reducing the size of maize parcels. Perhaps women, by necessity, are more risk averse when it comes to food crop production.

8. Production Groups and Commercialization

Respondents believe it is profitable to practice commercial agriculture in collectives. While many respondents (45 percent) are members of associations, most indicated a preference for schemes, women in particular. It would be worth finding out why.

Production groups enjoy wide support and commercial agriculture appears to be generally accepted as appropriate, even necessary. An earlier survey (Sibisi, 1981) reported that commercial success was likely to generate envy and resentment in the community. A land tenure study (Flory, 1987) also raised the spectre of jealousy and banishment at commercial success. In the baseline survey, 62 percent of the respondents believe their neighbors see no problem with commercial agriculture. Only 8 percent think their neighbors disapprove of using homestead land for commercial purposes.

E. Marketing

1. Markets Used and Preferred

Market "constraint" is widely discussed in Swaziland. Low prices, inadequate transport, and competition from the RSA are cited as reasons Swazi producers do not profit more from agriculture. The baseline queried Swazis about the markets they use.

Table 13. Markets Used and Preferred

	Used	Preferred
Farm gate retail/local/national/ combination	87/57%	--
Farm gate retail	29/19%	26/17%
National market	14/9%	47/31%
Contract	8/5%	26/17%
Local market	5/3%	21/14%
Cooperative	3/2%	7/5%
City market	1/1%	8/5%

Several markets appear to be more desirable than their current use would indicate; this is likely a result of combined

market responses in the "used" category. Women express a particular preference for sales at the farm gate.

Respondents have diverse opinions on markets. Some producers reported NAMBoard as unsatisfactory because prices are not fixed until the sale is made. For other producers, retail sales at the farm are problematic because of the uncertainty of demand. Travel to city markets can yield bruised produce due to rough handling and transport. Some producers said market prices are too low to cover transportation and production costs.

On the upside, producers reported off-farm marketing more often results in everything being sold. Farmers under contract enjoy the certainty of a guaranteed arrangement. Farm gate retail and Swaziland Milling provide cash and are thus preferred by some producers. Others prefer selling in local markets where an acceptable price can be negotiated. Generally, national boards will collect large quantities of produce, while schemes will collect and market produce.

The extent to which marketing arrangements are satisfactory is reported below. The "pull" of the market is an important element in the CAPM approach and particular attention should be paid to potential interventions including improved packaging, improved information dissemination, and overall reliability of marketing.

Table 14. Perceptions of Marketing Arrangements

Satisfactory	67/44%
Unsatisfactory	
Transport unavailable or too expensive	32/21%
Low price/demand	23/15%
RSA competition	4/3%
Consignment	4/3%
Combination	8/5%
Other	5/3%

According to the sample, the crop most often unsold is vegetables. Of the 22 percent who occasionally have been unable to market this crop, poor quality or rotted produce are the reasons cited.

Crops are marketed most often by the homestead head and/or spouse. They, too, keep the cash from the sales. As mentioned, responses to this and similar questions were misunderstood by the enumerators. As a result, the category of "head and spouse" cannot be disaggregated.

In groups, it is mostly individuals (57 percent) who market production and keep the cash from the sales. Some groups, however, market collectively and share the cash. This is true especially for the schemes at Velezizweni and Pilani.

F. Income and Expenditure

1. Sources of Income and Earnings

Average rural household cash income is just over E200/month (National Income and Expenditure Survey, 1985). For homesteads it is somewhat higher. Cash income from agriculture accounts for about 6 percent of this. The remainder comes mostly from wages and sales of non-agricultural products. Wage employment is the primary source of income for 62 percent of the income-earning homesteads in the land tenure survey (Marquardt, 1989 draft). Agriculture is the primary source of income for 22 percent of the homesteads and the principal secondary source for another 27 percent. Only among "commercial" homesteads does agriculture account for most homestead income.

The baseline survey focuses on commercial producers and to that extent agriculture is overwhelmingly the principal source of income. Respondents were asked to indicate their three main sources of income.

Table 15. Sources of Homestead Income

	Cited 1st, 2nd, or 3rd	1st only
Crop sales	48%	105/68%
Wages	18%	22/14%
Other on-farm sales	15%	8/5%
Remittances	10%	9/6%
Animal product sales	9%	10/7%

Money received from sales of the single most important agricultural source of income is, on the average, E13,000/year. This figure is skewed by the large sales of a relatively few producers. Median sales are E260/year.

Forty percent of high commercial homesteads report sales of more than E5,000/year from their main agricultural product. Another 38 percent reported sales between E1,000 and E5,000. By contrast, 50 percent of low commercial homesteads had sales of less than E250/year from their strongest agricultural product. In the low commercial group, 94 percent of the homesteads reported total crop sales at under E1,000 per year.

In associations, the least commercial of the groups sampled, only four of 69 cases reported income from the single most important agricultural product at over E2,000/year. In contrast, 57 percent of scheme members earn more than E2,000/year from their main agricultural sales item. Sales of more than E4,000/year are virtually dominated by Mphetseni (pineapple), Vuvulane (sugarcane), Luve (cotton and maize), Tsenga (cotton and maize), and Usuthu (milk). The Pilani Poultry group earn over E3,000/year. Of the remaining groups, only Qomintaba (a lowveld association) are producers earning on this scale and they have large herds of cattle (over 600 head in one case).

The number of cattle owned by a homestead may be a proxy for overall homestead income (de Vletter, 1983). The average number of cattle owned by survey respondents is 19, with a median figure of 12. Cattle ownership is not significantly associated with other key variables in the baseline survey.

Women respondents predominate in several income categories including income from wages, on-farm non-agricultural activities, and remittances in their homesteads.

2. Expenditures

The Rural Homestead Survey (1983) established a significant association between number of bags of maize purchased and overall homestead expenditures. In the baseline survey, 62 percent of the respondents did not purchase maize last year for homestead consumption. Twenty-two percent purchased between one and 10 bags. Maize purchases generally were few. The baseline survey did not solicit information on homestead expenditures. There is an indication that high commercial homesteads may be purchasing slightly more maize than are low commercial homesteads.

G. Quality of Life

1. Homestead and Community Improvements

An improved standard of living is reflected in better social services, more extensive infrastructure, and better family living conditions. Respondents were asked if they had witnessed improvements in their community during the past two years; 59 percent said they had. Community improvements most often cited

are schemes and projects (24 percent), schools (9 percent), and increased wealth (8 percent). The last response is mostly from men who received bridewealth payments from the marriages of their daughters.

Forty-one percent of the sample said their personal situation also has improved during the past two years. However, 55 percent reported no change in their situation. Only 4 percent claimed their situation is worse than before. Improvements in personal lifestyle include increased agricultural production, new vehicles, and the formation of production groups.

2. Aspirations for a Better Life

When looking to the future, individuals consider not what is, but what might be. Table 16 addresses the future, indicating areas where respondents express desire for change. In many cases, respondents gave more than one response.

Slight differences among men and women are indicated. If they had additional money, men would spend it on agriculture (46 percent), equipment, and education. Women would invest in the home, agriculture (24 percent), and equipment. When parents were asked to select a career for their children, farming (29 percent) was the most common response. This was followed by teaching (8 percent), health (5 percent), and other professional fields (5 percent). Eight percent of the parents indicated they would let their children choose for themselves.

Table 16. Desired Improvements in Quality of Life

	In the Community	On the Homestead
Water	82	
Clinics	56	
Technical assistance	45	
Schemes/projects	34	
Electricity/telephone	24	
Markets/stores	22	
Land	13	
Schools/roads/other	55	
Missing (mostly 3rd choices)	98	
Improved agriculture		52
Equipment/vehicles		33
Household		26
Business/education/land/other		43

H. Summary

This survey attempts to provide a starting point for the CAPM project. The results describe the state of commercial agriculture on Swazi homesteads at this time.

The baseline contains more responses by women (56 percent) than by men. Most of the respondents are found in the middleveld. The majority are married (88 percent), little educated (4.3 years of schooling), and produce collectively in associations (45 percent), schemes (30 percent), or cooperatives (24 percent). Their average age is 47.4 years. They produce maize, cotton, vegetables, sugarcane, pineapple, dairy products, and poultry, often on parcels supplemental to their homestead.

The average homestead consists of 8.7 residents, including 1.3 men, 1.9 women, and 5.5 children. There are few absentee members. Some 70 percent of homestead heads in residence are men, averaging 53.2 years of age. Fourteen percent of the homestead heads are women; they average 54.4 years of age. The

average age of the head of homestead, 53.2 years, is higher than the national average of 50.5 years. This may be a function of the relatively high level of commercial activity in the sample. Homesteads which are more commercially active in agriculture are more advanced in the homestead "life cycle."

The homestead head has 3.7 years of schooling. Forty percent have had no formal schooling. Less than one child (.91) per homestead has completed 12 or more years of school. Those children with fewer than seven years of schooling number 2.5 per homestead.

In 62 percent of the homesteads, some members work off the farm. They work mostly in an urban center (58 percent) in Swaziland. The average number of on-farm workers is .9 men, 1.5 women, and 3.9 children. Fifty-one women, nearly 60 percent of the women sampled in the survey, report cases of no men working on their homestead.

Surveyed individuals reside mostly (85 percent) on SNL. The remaining 15 percent either own title to the land or are lease holders. The average size of holding is 12.2 ha. This is much larger than the national average because of a few large individual holdings which skew the sample. The most common size holding in the sample is 2 ha.

Nearly 3/4 of the respondents individually own a grain tank; about 1/2 own a plough and storage sheds. Only 1/4 own a crop sprayer or a bakkie. A tractor is owned by 14 percent and a lorry by 5 percent. Notably, implements are also owned by groups of which the respondents are members.

Few respondents (34 percent) have access to telephones that could render their farming operation more efficient. Most (83 percent) need improved sheds and storage facilities.

Some 90 percent of the surveyed homesteads produce maize; about 3/5 sell some of it. It is not, however, the most remunerative crop. Other products sold which generate greater income include cotton, sugarcane, pineapple, broilers, eggs, and milk. Some homesteads also sell vegetables, legumes, potatoes, and sweet potatoes.

More than 50 percent of the homesteads indicate that production for sale at present is greater than it was two years ago. Of those respondents who were not producing for sale two years ago, 86 percent are women. Women are emerging as commercial producers. At the present time, however, they produce and sell lower quantities and lower proportions than do men.

The main constraints producers identify which limit the profitability of farming are cash, inputs, water, soil, and land.

Labor availability is not identified as problematical; some high commercial producers, in fact, hire labor.

More than half the respondents can cover the costs of agricultural production with sales of agricultural products. They indicate, too, that agriculture is profitable. Identical responses to two different questions suggest that individuals may not distinguish between income and profit. Training in the fundamentals of commercial enterprise is advised for homesteaders.

Decision-making on the farm is shared by men and women, although this analysis was weakened by a problem in the way survey information was recorded. Women look to agricultural extension agents for decisions on production while men tend to make these decisions themselves for group endeavors.

Use of agricultural inputs is widespread. More than half the sample use manure, oxen, fertilizer, pesticides, and tractors, either as individuals or in groups. Many use fencing and irrigation as well. Most (73 percent) report that inputs are available when they are needed. Overall, use of inputs is up since the 1979 Rural Homestead Survey.

Advice from agricultural extension agents is commonly (62 percent) obtained and eagerly (91 percent) sought. Women do not report a problem in receiving agricultural extension.

Credit is not commonly used for production. Of the 14 percent of the sample who use credit, 70 percent are men. Women are not the sole owners of assets and cannot easily obtain loans without guarantees provided by men. Those individuals who have sought credit have been largely successful. Yet interest in seeking credit is relatively low. Respondents indicate that high interests rates and the fear of losing collateral make credit an undesirable option. Nearly 70 percent, or 107 respondents, do not use credit at all. A more thorough credit study is called for to ascertain the extent to which limited use of credit by low-level commercial producers is constraining their commercial expansion.

A large number of respondents (94 or 61 percent) said they need more land to be profitable. Many believe that they will not be able to obtain it. This, and other responses, suggest that the potential for earning satisfactory income from farming on a small scale under traditional management practices may be limited. The link between traditional land management and investment in improvements in land needs to reassessed.

While respondents uniformly use manure and fertilizer to make their land more productive, they seem to be unfamiliar with long-term, sustainable conservation measures such as agroforestry

and improved fallow. The survey shows there is a willingness among producers to try new, potentially profitable crops, even if it means reducing the amount of land allocated to maize production.

Overall, 85 percent of the respondents believe that production groups are a profitable way to operate. Most prefer schemes (39 percent) to cooperatives (25 percent) or associations (21 percent).

Producers generally use more than one market to sell their products. These include retail sales at the farm, local markets, national markets, and contractual arrangements. There is support for national markets; they are the preferred choice (31 percent) among producers. Each market has its strengths and weaknesses, however. Transport and low prices/demand are the two most commonly identified marketing problems. CAPM can play a major role in improving the market's "pull" of homesteaders into commercialization.

Income from agriculture is by far the most important source of homestead income in the sample. While some homesteads at Mphetseni (pineapple), Vuvulane (sugarcane), Luve (cotton and maize), Ntsenga (cotton and maize), and Usuthu (milk) consistently report annual sales for a single agricultural product of over E4,000/year, 65 of 69 members of associations earn under E2,000/year from the sale of their most important agricultural product. Other sources of income for homesteads, and more important ones for women respondents, include wages, remittances, and sales of on-farm non-agricultural products.

About half the sample increased their standard of living in the last two years. Respondents would like to have more water, clinics, and technical assistance. They would invest in agriculture, buy equipment, and improve their homes if they had additional wealth. For their children's careers they prefer farming, teaching, and the health and professional fields.

SECTION III

TARGET POPULATION PROFILE

Several studies have sought to define the Swazi commercial producer, including Testerink, 1984; Flory, 1987; and Marquardt, 1989 draft. The Agricultural Census 1983/84 defines commercial livestock production as "a dozen eggs/day and/or a dozen broilers/month and/or milk sales" and placed 1,083 homesteads in this category. Quantities are not provided for fruit, vegetable, cotton, or tobacco production, but another 11,240 homesteads are classed as producing these crops commercially. Perhaps another 8,000 homesteads produce sugarcane and maize for sale, although this is not stated in the census (it reports instead that 9,485 homesteads always produce enough maize for homestead consumption). Thus, some 20,000 homesteads may be commercially active.

The recent Land Tenure Survey also examines this issue. Using a number of operational definitions based on income from crop sales and/or land under cotton and tobacco, the survey identifies some 30 homesteads in its small sample as commercial. Elsewhere, it reported that 48 percent of rural homesteads with cash income list agriculture as their primary or secondary source of income. When the class of commercial producers are examined according to the survey criteria, 96 percent list agriculture as their primary or secondary source of homestead income. Despite the small number of actual commercial homesteads surveyed, commercial production was determined to take place in homesteads in which the primary or secondary source of income is the sale of crops and animal products. By this reasoning, of the 58,061 rural homesteads cited in the Agricultural Census, less those with no cash income at all, 48 percent, or about 27,000, can be called commercial.

On the basis of census and land tenure data, it reasons that approximately 25,000 Swazi homesteads are producing commercially. If others are included who produce with the intent, or even the hope, of selling, the number is larger. The baseline survey indicates that the figure is growing. The recent entry into the commercial agriculture sector by the women surveyed in this study is evidence of the perceived need to increase cash flows to the homestead. As is the case in most of the world, one income is no longer enough.

This section examines the attributes of surveyed homesteads classified as high or low on the commercial scale. All respondents at Vuvulane (sugar cane) and Mphetseni (pineapple) have been placed in the high commercial group. So too the large poultry (over 200 broilers sold annually) and egg producers, the dairy farmers, the larger cotton producers (six bales or more or

fewer bales in combination with 35-100 bags of maize and more than 30 crates of vegetables), and the large vegetable producers (200 or more crates or 100-200 crates of vegetables and over 40 bags of maize). Producers selling more than 150 bags of maize are also in this group. By this accounting, 72 respondents or, 47 percent of the sample, are highly commercial.

The remaining 82 respondents, nearly all of whom sell some of what they produce, are classified as low commercial producers. Included are most of the members of associations created expressly to generate income from vegetable production. These efforts could be considered as incipient or emerging commercialization. They are very much a first step in the entrepreneurial process.

This section is based on an assessment of the significant differences in sampled attributes between high and low commercial producers. The data base was subjected to cross-tabulation by the commercial variable. In effect, responses to all questions in the survey have been separated into two classes: one for high commercial producers and the other for low commercial producers. By comparing the two sets of responses, differences which are statistically significant have been identified. These differences constitute the commercial profile.

A. Composition of Sample

1. Sex and Location of Commercial Producers in the Baseline Sample

High commercial producers, to a significant degree, are men. They are primarily found in the high- and lowveld.

Table 17. Sex and Location of Commercial Producers

	Men	Women	Highveld	Middleveld	Lowveld
High commercial	69%	30%	58%	37%	63%
Low commercial	31%	70%	42%	63%	37%
Total	44%	56%	15%	59%	26%

The limited number of women as high commercial producers is likely attributable to a few fundamental factors: historical responsibility for family food crop production, limited access to physical resources (e.g., land, machinery), and little access to cash resources. Nonetheless, women from highly commercial

homesteads can be found in the Pilani poultry group and in small numbers elsewhere.

2. Age, Education, and Marital Status of Commercial Producers

High commercial producers tend to be among the older respondents. Fifty-six percent of the sample over age 50 are in the high commercial category. The average age of a respondent in this class is 49.5 years compared to 47.4 years for the sample as a whole.

Married men with one wife constitute half the high commercial group. Married men with more than one wife are nearly evenly divided between the two groups. Seventy-eight percent of the widowed or divorced respondents are in the low commercial group. Half of them are women. Two widows, one at Vuvulane and the other at Mphetseni, are in the higher group.

Overall, respondents' level of education is not significantly associated with level of homestead commercial activity. In the Usuthu dairy group, however, all the members are graduates of agricultural schools.

3. Membership in a Production Group

Schemes, by definition, are highly commercial. Associations are not, while cooperatives may be. Cooperative members were nearly evenly divided into the high and low commercial groups.

B. Homestead Human Resources

1. Residents and Labor in the Homestead

De Vletter (1983) reported the size of the homestead population is positively correlated with income from agriculture. In this survey, low commercial producers, at significant levels, reported cases of no adult men residing at the homestead. Some of these are homesteads headed by women; in other instances, the male head is absent for more than six months of the year. There is no indication, however, that commercial activity is significantly associated with the total number of resident males (if one or more), number of resident females, or total number of homestead residents.

The number of males who work daily on the homestead is a significant factor in commercial production. High commercial homesteads employ more men working on a daily basis. As the number of men in residence is not a factor in commercial activity, a possible conclusion is that high commercial

homesteads are hiring day labor. Additional data in support of this explanation are presented later in this section.

C. Homestead Physical Resources

1. Size and Tenure of Holding

Virtually all surveyed lease and title deed holders are highly commercial. Significantly, 37 percent of SNL producers also are highly commercial. Many, but not all, of surveyed producers are members of an irrigation, poultry, or dairy collective.

As a rule, high commercial producers are from homesteads with larger land holdings. This statistical result is due in part to the relatively large holdings on the Vuvulane and Mphetseni schemes. High commercial producers also outnumber (13 to eight) low-level producers on small (under 2 ha) holdings. These include poultry and dairy operations located off the homestead and irrigated vegetable producers.

2. Agricultural Implements Owned

Homestead investment in agriculture may be demonstrated by the purchase of equipment and machinery to enhance production and increase income. It has been shown, for example, that tractor use is associated with higher levels of income from crop sales (de Vletter, 1983) and that tractor owners will hire out their services to others. High commercial producers generally have made greater investments in agriculture. One indicator is ownership of implements and machinery.

At significant levels, individual high commercial producers own bakkies, crop sprayers, and tractors. In groups, they own ploughs, bakkies, and tractors. Overall, in groups, high commercial producers own a greater number of implements than do low-level producers.

Commercially active producers are slightly more likely to have access to a telephone than are other producers. However, the buildings and sheds they use are no more or less adequate than is the case for the sample as a whole.

D. Agricultural Production

1. Production and Sales

By definition, high commercial producers grow and sell large quantities of crops and animal products. This occurs at significant levels for maize, cotton, sugarcane, vegetables, beans, and dairy. Numbers of livestock kept also are greater among high producers. For poultry, fruit, groundnuts, potatoes,

and sweet potatoes, there are clear indications that some high commercial homesteads are producing large amounts. These cases are too few, however, to yield statistical measures of significance.

While 61 percent of high commercial producers reported having more for sale now than two years ago, 96 percent of those respondents who were not producing commercially at all two years ago are in the low commercial class. This demonstrates a growing interest in commercial agricultural activity which CAPM can help develop through the identification of new market opportunities. In two years time, this question should be posed again to measure growth in commercial participation.

Production decisions on the homestead, according to commercial class, do not deviate from those established in the baseline. For groups, however, high commercial producers rely significantly upon leadership to make production decisions. Among low-level producers there is an unusually high dependence (83 percent) upon agricultural extension agents as decision-makers. At this time, public sector technical assistance in the form of direct intervention at the production level may be more suitable for novice producers than for those with more production know-how.

Two-thirds of the high commercial producers report that sales from agriculture are sufficient to cover the costs of production. Another 27 percent state that this is sometimes so. Only 4 percent, in comparison to 96 percent for low-level producers, indicate that they don't know whether sales cover costs. Similar statistics exist for reports on making a profit from agricultural sales. The similar responses to these two questions for both groups suggests that both high- and low-level producers may be unclear about the distinction between income and profit.

Constraints which limit the profitability of farming are similar for the two groups, although transport is more often cited by low-level producers as problematical. As high-level producers are essentially the only respondents who rent or borrow land, it may be a factor limiting the commercial success of low commercial producers.

2. Inputs Used

More than ownership of implements, input use indicates the extent to which a homestead invests in agriculture. The de Vletter Rural Homestead Survey (1979) cited the use of fertilizers, pesticides, and irrigation as factors which are linked to income from crop production. In several input categories, clear differences exist between high and low commercial producers.

Of the high commercial group, 47 percent hire labor on their homesteads. For the low group this figure is 24 percent. This supports the observation, made earlier, that the additional men laboring daily on commercial homesteads are hired. Commercially active groups dominate this category as well. Ninety-three percent of the responses for use of hired labor by groups is on the high commercial end.

By contrast, low commercial producers fence more often than do members of the high group. As noted, this is predominantly in the lowveld and may be a means of keeping cattle out of vegetable plots.

Many producers in both commercial classes use pesticides and fertilizer, oxen, manure, and tractors. However, significantly greater numbers of low commercial producers do not use fertilizer or tractors at all. For tractor use in particular, 29 of 43 respondents (67 percent) who never use them are on the low commercial end.

While irrigation is not used uniquely by high commercial homesteads, their production levels suggest that factors of scale and management may play important roles in determining output. There is other evidence to support this view. High commercial producers' use of rented or borrowed land is significant. Twelve of the 15 respondents who rent or borrow land are high producers.

3. Agricultural Extension

As noted in the baseline discussion, advice from agricultural extension agents is generally sought and desired. High commercial producers' desire for advice is equal to that of other producers but they receive somewhat less advice than is the norm in this survey.

4. Use of Cash and Credit

The majority (17 of 21, or 81 percent) of respondents who seek bank loans are high commercial producers. While they appear to be no more or less successful than others in obtaining loans, they are more likely to use credit for purchasing agricultural inputs--labor, seed, fertilizer, pesticides, transport, and water. The limited use of credit by low commercial producers may be an important factor in constraining their expansion into high commercial activity. CAPM should pursue this possibility in the form of a working hypothesis in a more thorough study of the credit issue.

5. Land Use

High-level producers did not report a need for additional land to any greater extent than do low commercial

producers. Nor did they indicate any greater or lesser certainty about whether or not it can be obtained. As stated earlier, however, they do rent or borrow land to supplement production on their own parcels.

High commercial producers did not demonstrate a greater or lesser tendency to take land out of maize production for a more profitable crop, nor did they express a greater or lesser interest in doing so. Their approach to improving the productivity of their land is the same as others--applications of manure and fertilizer.

6. Production Groups

The profitability of group production is acknowledged by many producers. Cooperatives (42 percent) and schemes (37 percent) are most often cited by high producers. Low-level producers, mostly women, prefer schemes (54 percent) and associations (27 percent).

High-level producers did not find their neighbors to be any more or less disapproving of commercial agriculture than is true for the sample at large. The overall acceptance of commercial production suggests that the so-called "cultural constraint" limiting commercialization may be more imagined than real. (See bibliography section on "Culture, Economy, and Society" for references to discussions of how Swazi culture may serve to limit private enterprise development.)

E. Marketing

1. Markets Used and Preferred

High commercial producers prefer a market which is used with regularity and success. However, the constraints which limit their marketing success are different from those of other producers.

Only four commercially active producers report selling at the farm gate. Eighty-six percent (25 individuals) of farm gate sales are made by low-level producers. Many of these, as noted earlier, are women with limited means of transport. Other markets are used by both groups, although all the sampled contract producers are at the high commercial level. Fifty-seven percent of the high commercial group report that they are satisfied with marketing arrangements; they represent 61 percent of the responses in this category. Sixty-three percent of low-level producers, on the other hand, report dissatisfaction with marketing arrangements (mostly transport, prices, and the consignment system). Of the four respondents who see competition from the RSA as problematical, three are high-level producers.

Market appeal also varies between the groups. Low-level producers prefer local markets more and contract and cooperative arrangements less. Both groups find national marketing boards to be the most appealing of all.

Table 18. Preferred Markets of the Sampled Respondents

	Farm gate retail	Farm gate wholesale	National	Local	City	Coop	Con- tract
High com.	17%	1%	39%	7%	4%	9%	23%
Low com.	19%	8%	29%	22%	7%	1%	14%

Low-level producers are more likely to be constrained by problems of transport. The individuals actually doing the selling in both commercial groups are the same as those reported in the baseline.

F. Income and Expenditure

1. Sources of Income and Earnings

High commercial producers list crop sales as their prime source of homestead income. The sale of animal products as the primary source of homestead income is, by contrast, essentially (9 of 10 respondents) a high commercial activity. While this is too small a number to generalize safely to the population at large, it is suggestive of an attractive market for animals and animal products. This should be investigated further.

Table 19. Primary Sources of Homestead Income for Commercial Producers

	Crops	Animal Products	Wages	Remittances	Other On-Farm
High	80%	13%	3%	3%	1%
Low	57%	1%	24%	9%	9%

A small number of low-level producers (seven of eight respondents in the category) identify on-farm non-agricultural products as the most important source of homestead income. These are women earning income from the sale of handicrafts, traditionally the most common means of income generation used by women.

Ninety-one percent of the respondents who identify wages as the most important source of homestead income also are low commercial producers. Wage income is reported by Sibisi (1981) to fuel agricultural investment and sales. These homesteads may be in the process of becoming more commercial. Although as a group they are not necessarily younger than the rest of the sample, they do indicate a preference for investment in agriculture (i.e., equipment, livestock) if they had more money. Currently, they may not be able to support themselves from agriculture alone.

Actual income earned from the sales of the single most important commercial agricultural product on the homestead varies significantly by commercial class. Eighty-four percent of low commercial homesteads earn less than E1,000/year in this way. In contrast, 78 percent of the high commercial producers earn more than E1,000/year from their strongest crop.

While high commercial homesteads earn more income from agricultural sales, they do not appear to own significantly more cattle. In fact, numbers of cattle owned are low in the schemes which comprise much of the high commercial group. Perhaps members of schemes are investing more in crop production than in purchases of cattle.

2. Expenditures

As discussed, expenditure information was not collected in this survey. A proxy variable--maize purchased for home consumption--was used instead. There is the possibility that high commercial producers, who should have higher overall levels of expenditures, are purchasing more maize. While this is what is expected when using the maize proxy, there is nothing conclusive in the data to support it fully.

G. Quality of Life

1. Homestead and Community Improvements

Improvements made to the homestead are indicators of an improved standard of living. A slightly higher percentage of high commercial homesteads report having made improvements in their personal situation over the past two years (57 percent to 43 percent). In their communities, these producers report that schools indicate better community life. Low-level producers identify schemes and projects as positive changes in their communities.

2. Aspirations for a Better Life

The two groups did not differ significantly in what they hoped the future would bring for themselves, their

communities, and their children. Both ranked agriculture first for investments of additional money (the high group at 40 percent and the low at 28 percent).

H. Summary

Highly commercial homesteads are measurably different from homesteads commercially active at a lower level. These differences extend beyond the obvious--higher levels of production, sales, and income--to include inputs used, markets preferred, factors limiting profitability, and overall experience and know-how. In this survey, high commercial producers are marketing considerably greater quantities of produce than are low producers. Low producers are seen as an emerging class of entrepreneurs.

The high commercial producer is 49.5 years of age, slightly older than the average age for the sample as a whole. He is male (69 percent), married with one wife, whose homestead is in full maturity. His level of education is similar to that for the sample as a whole. He is more likely to be a member of an agricultural production scheme than a cooperative or an association.

Homesteads which do not have any men in residence are likely to be in the low commercial class. The correspondingly high proportion of women in the low commercial group may be, in part, a function of the absence of males. Women may need to earn a wage in such homesteads.

While the total number of resident members of the homestead is not significantly associated with commercial activity, commercially active homesteads have, to a significant degree, a greater number of men working daily on the holding. This indicates that these homesteads are hiring labor.

All lease and deed holders are members of the high commercial class. Some 37 percent of respondents on SNL also are in this category. Most of the commercial activity in this group is collectively undertaken in irrigation, pineapple, sugarcane, poultry, and dairy schemes.

While some commercial producers at Vuvulane and Mphetseni occupy large parcels of land, others are commercially active on 2 ha. This suggests that even small holdings are suitable for commercial production, however several provisos are in order. Commercially active producers on small holdings are irrigating their fields or, in other cases (e.g., poultry or milk production), operating supplemental parcels. While the size of their holding is not, in and of itself, constraining their operation, other highly active producers are renting or borrowing land to increase the profitability of their endeavors. It seems

that both land management techniques as well as size of holding and tenure need to be considered in calculating the potential profitability of smallholder farming.

Highly commercial producers own a greater number of agricultural implements, notably bakkies, crop sprayers, and tractors. They are more likely to have access to a nearby telephone as well, an important factor in overall efficiency of production.

High commercial producers produce and sell more of virtually every crop. They keep more livestock as well. Most of them (61 percent) are producing more for sale now than they were two years ago. Of those respondents who, two years ago, were not producing commercially at all, 96 percent are in the low commercial group. This suggests that commercial agriculture is emerging in the Swazi population.

Overall, there does not appear to be a "cultural constraint" to commercializing production. Highly commercial producers report at rates consistent with the sample as a whole (i.e., 8 percent of the sample) that they do not generate enmity among their neighbors.

The use of inputs to enhance agricultural production is more pronounced among high producers. They hire more labor, rent or borrow more land, use more credit, and have lower rates for non-use of fertilizers and tractors. While both groups receive advice from agricultural extension agents, only in the low group are extension agents sought to make decisions on production.

Both groups of producers use a number of different markets to sell their produce. The lower group is more likely to make retail sales at the farm gate; contract sales are strictly a high group phenomenon. The highly active producers appear to have solved some of their marketing problems; 57 percent indicate that their marketing arrangements are satisfactory. Low producers are less satisfied (39 percent) with their access to markets. They report that costly or unavailable transport, low prices or demand, and the consignment system are obstacles to their marketing success. In general, both groups view national marketing boards favorably.

The income which high commercial homesteads earn from the sale of crops and animal products is notably higher than is the case for those in the low commercial group. High commercial producers outnumber low producers 35-to-1 in earning more than E2,000/year from the sale of their single most important agricultural product.

While both groups of producers earn most of their income from agriculture, the low commercial group is more likely also to

cite wages, remittances, and handicraft sales as additional, important sources of income. Members of the high group, on the other hand, are the only ones to cite income from the sale of livestock as a main homestead source. There may be an attractive market for livestock which would be of more widespread benefit to producers.

High commercial producers do not own more cattle than do low producers. In fact, cattle ownership is generally low among the members of production schemes. Perhaps producers in schemes are trading off investment in cattle for investment in crop production.

The personal situation of high commercial producers is reported to have improved over the past two years in slightly more cases than is so for low producers. Otherwise, differences in individual preferences for community development, homestead improvement, and careers for children are not notable.

SECTION IV

NOTABLES SPEAK OUT

Rural producers are among the best sources for information on Swazi agriculture. Yet what takes place on the farm is influenced by what occurs off the farm. Agribusiness, in particular, requires coordination between producers, suppliers, and processors, and between agricultural supply and market demand. Public sector administrators and policy-makers also have key roles to play in the development of the agricultural economy.

The capability of producers to meet demand may be offset by a lack of interest if markets are not sufficiently attractive to them. Other producers may lack the technical skills or resource base to be as productive as they would like. Sustainable agricultural development for this diverse group requires coordination among research, training, production, infrastructure, and policy.

The views of a select group of "notables" are presented in this section. Among these individuals are chiefs, senators, titled land holders, former MOAC officials, and a current minister. They were selected from a larger group of persons which the survey design team questioned on the basis of their ties to agricultural development.

Specifically, two notables are former MOAC officials who were involved in the early discussions leading to the design of the CAPM project. One of the chiefs is an outspoken advocate of local, community development. Two others are known to be more conservative and were selected to provide views on traditional land management and other traditional practices. The titled land holders all are highly active in commercial agricultural production and were agreeable to discussing their views and interests with the survey team. The minister has authored documents and publically discussed his views on agricultural development. His ideas, and those of the others, provide a counterpoint to the baseline data. They focus on issues related to land use, human resource development, agricultural policy, and the overall political environment for agricultural development.

This group of 10 persons is in no way representative of the public or private sectors at large. Yet the issues they raise in regard to agricultural and agribusiness development should be taken into advisement. In some cases, these individuals were not aware of the CAPM project and interviews with them served an educational function. Uniformly, the CAPM project was seen as

being on target in terms of its focus on stimulating producer interest in commercialization through market development.

The discussion in this chapter is presented under the headings of land resources, human resources, policy resources, and political resources.

A. Land Resources

The land issue is fundamental in Swaziland as it is in many modernizing nations. An extensive series of land tenure studies was conducted between 1985 and 1987 to help MOAC planners better understand land use practices and tenure in Swaziland. A number are cited in this report. The most notable conclusion of this massive effort was that the "traditional tenure system does not appear to be a major constraint to increasing agricultural production" at this time (Brown 1988).

Results of the baseline survey indicate that the producer has a perception of land as a key and limited resource. Sometimes parcels supplemental to the homestead are needed but respondents are not certain they can be obtained. Conversations with notables also reveal a concern about land and equity.

While allocations of SNL continue to be made to individuals and groups on the basis of "demonstrated need," chiefs caution their subjects: "When I give land to you, I'm thinking about the others, too."

It is difficult at this time to demonstrate that agriculture on homestead land is not undergoing greater development because homesteaders are unwilling to make the necessary investments. While there is a real credit issue linked to the traditional tenure system, some individuals and groups have found ways to raise capital and use it profitably on SNL. Some poultry operations and irrigated farming, for example, are commercially viable. Yet these endeavors are more the exception than the rule. Cattle raising, as an example of a more conventional practice, is also profitable but it benefits from free access to pasture and subsidized veterinary services. Most crop production is extensive and of low productivity.

The Swazi population, growing at an annual rate of 3.2 percent, will double in 20 years. If management of homestead land is not now focused on increased productivity, extreme measures will be called for in the future. This is the message from notables. Parcels allocated specifically to individuals or groups with the capability for high productivity is one stated approach with the potential to increase productivity within the framework of traditional tenure.

B. Human Resources

Technical know-how is one of the keys to productivity. To an extent, many Swazi producers are already technically capable and production on SNL has increased fourfold during the 1980s. New knowledge, however, is required for more intensive commercial production. Where farming is a family's livelihood, the homestead must make a profit from agriculture. This requires a planning and management capability which many homesteaders do not yet possess.

The need for training, public awareness campaigns, and commercial orientation workshops was voiced by virtually all the notables interviewed. This included decision-makers who need to know more about agricultural economics, to farmers lacking the fundamentals of business management.

For commercial producers themselves, and those who would desire to be commercially active, awareness programs should be promoted. These should focus on "practical" knowledge for "real" situations such as opportunities in the commercial area, risks producers face in becoming more commercial, how a homestead determines the price it needs for its operation to be profitable, and how problems in commercialization can be overcome. "Awareness without promises" is a slogan suggested by one chief.

A recommended approach for identifying homestead concerns is to simply ask homestead members about them. "Let them identify their needs so they will be more involved in the activity," said one of those interviewed. This will be their "incentive" and their "commitment."

One forward-looking organization cited by notables is the Farmer's Development Foundation. A non-governmental organization, this group is a farmer's forum where farmers can seek information, training, and support. This organization and others like it should be considered as conduits through which CAPM can reach the rural sector to improve skills and know-how.

C. Policy Resources

This study did not address policy issues. Nonetheless, the policy area was seen as key by the notables and is presented here to summarize their points of view.

Five policy areas were identified: pricing, imported foodstuffs and the domestic market, credit, foreign management of agribusinesses operating in Swaziland, and policy favorable to agriculture.

Pricing was said to be "low and uncontrolled." Producers often were unable to profit at the market price for produce, especially given competition from imported foodstuffs. Imports, it was claimed, are "dumped" on the Swazi market from the RSA and, because of their lower price, are purchased by bargain-conscious consumers instead of higher quality, but more expensive, Swazi produce. Without greater restrictions on this practice, it was argued, Swazi producers cannot be expected to be competitive.

One deeded land holder indicated that foodstuffs are imported occasionally because Swazi producers do not inform the NAMBoard of the availability of their produce. A better system of communication between the domestic producer and the domestic market was advised by this individual.

Concern about credit as a constraint to increased production was expressed by several persons. The policies of financial institutions were said to be in need of overhaul, rendering them more suitable to Swazi circumstances. In particular, non-conventional forms of credit and less complex application procedures were called for.

A particularly sore point concerned the management of Swazi agribusinesses by "outside agents." These representatives of foreign companies control operations to maximize profits for non-Swazi entities, parties disinterested in Swazi development. Boards of directors, it was claimed, are "shadows" who act out roles but have no substance in reality.

Finally, an agricultural policy which is well-disposed toward the farmer is lacking. Policy makers, however, were said not to be sufficiently concerned about agriculture. A need for change was emphasized.

D. Political Resources

"Everyone wants to commercialize these days" is a refrain often spoken by the notables. Yet without the right incentives commercial agriculture will not meet the expectations of society. Every notable interviewed stated that political will to make commercial production a success is essential; and it will have to be generated.

One means of reaching from government to the producer is through agricultural extension. Repeatedly, notables emphasized that extension officers must pickup the banner of commercialization and carry it to the people. Without public awareness of and support for efforts such as CAPM, agribusiness development will not happen. There must be a campaign.

History demonstrates that the Swazi farmer will support agricultural change. In the 1950s, hybrid maize could hardly be given away. Today, use of hybrid varieties is nearly universal. In the 1950s, cotton was an exotic crop. Today, more than 50 percent of the cotton in the country is produced by smallholders. In the 1960s, tobacco was new. Today, SNL homesteads produce nearly all the tobacco in Swaziland.

The argument for commercialization must be well-conceived, it was proposed. High production schemes which also have been troubled, such as the one at Vuvulane, are not favored by many smallholders. Schemes on or nearby homestead land are thought to be better suited for the Swazi system, where they can benefit families "where they are." This requires new land use and new land management practices. Where irrigation is feasible, schemes such as Veleziweni were cited as a potential model for replication. This scheme was started and is managed by farmers for strictly commercial objectives. Aside from providing technical assistance for irrigation, the government is not involved in the Veleziweni scheme.

Other possibilities for commercial development cited by respondents include repurchased title deed land now in Swazi ownership. While much of this land currently sits idle, admittedly because some Swazi owners "don't know" how best to use it, its potential is considerable. Those Swazi farmers who do cultivate deeded land operate at a high commercial level. They are likely to own a full complement of lorries, bakkies, tractors, and agricultural implements; irrigate crops; use bank credit; hire labor; and have their soil analyzed each year. Many of these farming operations represent the potential for development of commercial agriculture on deeded land.

The need to discover the extent to which commercial farming is feasible on homestead land is urgent. Youth are weighing the relative merits of rural and urban opportunities. If they choose to leave the farm they may contribute to urban overcrowding, unemployment, and stressed public services. Currently, agriculture is "cushioning" the unemployment problem. It will not be capable of continuing to do so. Commercial opportunities in rural Swaziland are one means of generating productive employment for some of the rural populace where they already live.

E. Summary Comments

There is a process at work in Swaziland, a process fueled by the need for cash. Commercial agriculture is one viable mechanism for buying-in to the expanding cash economy, but it is not for everyone. For those producers already members of schemes, under contract to processors, or with large numbers of livestock to dispose of, a livelihood from agriculture is already a reality. For others, hoping to increase the income they derive

from agriculture, success is uncertain. While vegetable gardens and informal groupings may be the first steps on the way to a Swazi commercial career, for many these will be the only steps taken. Identifying and promoting the factors which contribute to commercial success can help emerging commercial producers become profitable and create a climate in which the more entrepreneurial among them will succeed.

While the baseline survey establishes that highly commercial producers have greater resources (e.g., implements owned, land utilized), make greater investments in agriculture (e.g., hire labor, use more inputs), and produce in greater quantities, it does not indicate how they got where they are today. Some, no doubt, have used income from wage employment to increase their investment in and output from agriculture (see Flory, 1987 and Sibisi, 1981). Others, like the Pilani poultry producers, have worked steadily over the years, reinvesting profits, to build up their operation. Others, like the young Usuthu dairy farmers, have undergone technical training in agriculture and have been assisted in start-up by the Farmer's Development Foundation. Some committed farmers were fortunate to have been selected to participate in an innovative scheme (e.g., Mphetseni or Vuvulane) which has been financially remunerative.

What, if anything, do these diverse efforts have in common? What do these individuals share amongst themselves and even with producers new to commercialization? The answer, it seems, is an intangible quality, yet a cornerstone of the commercial endeavor: determination. It is the decision to earn cash from farming and the commitment to doing so which these individuals share. While we know that determination alone will not guarantee success, it is the motivating force of the commercial pursuit. Desire, commitment, skill, and opportunity is the recipe for commercial well-being.

The individuals who participated in the baseline survey are a determined group. In one or another way they have embarked upon the road to commercialization. The most successful have a knowledge and resource base which can be tapped for new commercial opportunity. They should be encouraged to participate in new agribusiness opportunities under suitable circumstances.

Emerging commercial producers have a different set of requirements. For them to respond effectively to new markets, fundamental interventions may need to be provided simultaneously. Commercial opportunities suitable for these producers may require technical assistance in the organization of production, in many cases a financial boost to increase the use of fertilizers and tractors, new land use practices (e.g., irrigation and block

farming) to overcome problems in economies of scale, and improved technical and commercial know-how.

For emerging commercial producers, more secure marketing arrangements are required: access to affordable transport, better communication and information systems, fair prices for the costs they incur and, correspondingly, more reliable linkages with their markets. These developments require an improved network for domestic production and trade so that producers, traders, and consumers each know what is expected of them and the others, and have the capabilities to meet those expectations.

By dint of resource base, personal attribution, or circumstance, not every Swazi who can benefit from commercial agriculture will do so. The thrust of agribusiness development in Swaziland is to generate adoptable opportunities which, in the end, and despite their widespread potential, will actually be adopted by only some producers. Each homestead, utilizing its own resources to suit its own circumstances, will decide for itself how it allocate its land, labor, and capital. Commercialization will be more feasible for some than for others. Through opportunities which are adopted by clients but adoptable by a larger audience, the benefits of commercial agriculture will be widely spread.

ANNEX A

BIBLIOGRAPHY

- Agricultural Development Strategy of the Kingdom of Swaziland,
Ministry of Agriculture and Cooperatives, Mbabane, 1986.
- Annual Statistical Bulletin, 1986, Central Statistics Office,
Mbabane, 1987.
- Armstrong, Alice K., "Legal Aspects of Land Tenure in Swaziland,"
Ministry of Agriculture and Cooperatives, Mbabane, 1986.
- Brown, C.K., ed., "Report of the National Workshop on Land Tenure
in Swaziland," Social Science Research Unit, University of
Swaziland, Kwaluseni, 1988.
- Bruce, John W. and Mark Marquardt, "Summary of Research Findings
and Review of Policy Options: Changes in Agricultural Land
Use in Swaziland," Ministry of Agriculture and
Cooperatives, Mbabane, 1988.
- Capricorn Africa Economic Associates, "A Description of the
Private Sector in Swaziland," Labat-Anderson Incorporated,
USAID, Mbabane, 1989.
- Development Plan, 1989-92, Economic Planning Office, Prime
Minister's Office, Mbabane, 1989.
- de Vletter, Fion, "A Study of Smallholder Irrigation Schemes in
Swaziland," (draft) Ministry of Agriculture and
Cooperatives, Mbabane, 1987.
- _____, "The Swazi Rural Homestead", Social Science
Research Unit, University of Swaziland, Kwaluseni, 1983.
- _____, "Subsistence Farmer, Cash Cropper, or Consumer:
A Socio-Economic Profile of a Sample of Swazi Rural
Homesteads," Department of Economics, University of
Swaziland, Kwaluseni, 1979.
- Flory, Bruce, "Constraints to Commercial Agriculture on Swazi
Nation Land," Ministry of Agriculture and Cooperative,
Mbabane, 1987.
- Freund, Roland P. and Basil P. Maphalala, "Economic Circumstances
of Swazi Nation Land 1982/83" (draft), Swaziland Cropping
Systems Research and Extension Training Project, Malkerns.

- Gamedze, Khanya and Sylvie Kamalkhani, "Swazi Culture and Small Business: Money, Wealth, Credit and Competition," Swaziland Training for Entrepreneurs Project, CARE International, Manzini 1989.
- Ginindza, Thoko, "Swazi Culture and Small Business: Traditional and Modern Beliefs and the Role of Assistance in Small Business Development," Swaziland Training for Entrepreneurs Project, CARE, International, Manzini, 1989.
- Ginindza, Thoko, "Swazi Women: Sociocultural and Economic Considerations," (draft) May, 1989, Labat-Anderson Incorporated, USAID, Mbabane.
- Investment Climate and Private Sector Assessment of the Kingdom of Swaziland, Dimpex Associates, Inc. USAID, Mbabane, 1987.
- Levin, Richard M., "Land Tenure Arrangements on Agricultural Production Schemes," (draft) Ministry of Agriculture and Cooperatives, Mbabane, 1987.
- Mamba, Siphon Hezekiel, "The Challenge for Africa," Symposium on the Development Partnership in World Agriculture for the 90s, Washington, D.C., September 14-15, 1988, Ministry of Agriculture and Cooperatives, Mbabane, 1988.
- Manual for Action in the Private Sector, Labat-Anderson Incorporated, USAID, Mbabane, 1989.
- Marquardt, Mark A., "Changes in Agricultural Land Use: Traditional Sector Survey," (draft) Ministry of Agriculture and Cooperatives, Mbabane.
- Rose, Laurel, "Customary Land Dispute Management in Swaziland," Ministry of Agriculture and Cooperatives, Mbabane, 1987.
- Rural Development Areas Programme Review, Ministry of Agriculture and Cooperatives, Mbabane, 1983.
- Russel, Margo, "Swazi Culture and Small Business," Swaziland Training for Entrepreneurs Project, CARE International, Manzini, 1989.
- Sachs, Carolyn and Christine Roach, "Women and Agricultural Production on Swazi Nation Land," USAID, Mbabane, 1983.
- Sibisi, Harriet, "Keen Farmers on Swazi Nation Land," Ministry of Agriculture and Cooperatives, Mbabane, 1981.
- Subsector Strategies for Agricultural Development in the Kingdom of Swaziland, Ministry of Agriculture and Cooperatives, Mbabane, 1987.

Swaziland Census of Agriculture 1983-1984, Central Statistics Office, Mbabane, 1989.

Swaziland Country Development Strategy Statement, USAID, Mbabane, 1989.

Swaziland Economic Review and Outlook, Economic Planning Office, Prime Minister's Office, Mbabane, 1988.

Swaziland National Income and Expenditure Survey, Central Statistics Office, Mbabane, 1988.

Testerink, Jan, "Agricultural Commercialization in Swaziland," Social Science Research Paper #11, University of Swaziland, Kwaluseni, 1984.

ANNEX B

NOTABLES INTERVIEWED

Chief (at Siteki).

Chief (at Siteki).

Chief and Senator, Mr. Dambuza Lukele.

Director of Immigration and Former MOAC Director, Mr. Robert Twala.

Minister of Labor and Senator, Mr. Ben Nsibandze.

Titled Land Farmer, Mr. Derrick James.

Titled Land Farmer, Mr. Musi Dlamini.

Titled Land Farmer, Mr. Mike Mmema.

ANNEX C

ANNOTATED BIBLIOGRAPHY BY SUBJECT AREA

Culture, Economy, and Society

de Vletter, Fion, "The Swazi Rural Homestead," Social Science Research Unit, University of Swaziland, Kwaluseni, 1983. A seminal document. Establishes a baseline, circa 1979, of social, economic, and nutritional aspects of homestead life.

_____, "Subsistence Farmer, Cash Cropper, or Consumer: A Socio-Economic Profile of a Sample of Swazi Rural Homesteads," Department of Economics, University of Swaziland, Kwaluseni, 1979.

The original survey upon which much of the "homestead" study is based.

Freund, Roland P. and Basil P. Maphalala, "Economic Circumstances of Swazi Nation Land 1982/83" (draft), Swaziland Cropping Systems Research and Extension Training Project, Malkerns. A review of agriculture production practices prepared for the Cropping Systems Project.

Gamedze, Khanya and Sylvie Kamalkhani, "Swazi Culture and Small Business: Money, Wealth, Credit and Competition," Swaziland Training for Entrepreneurs Project, CARE International, Manzini, 1989.

A view on cultural determinism. The alleged absence of competitive spirit as a cultural hook on which to hang a business hat is argued to be an impediment to the growth of Swazi enterprise. Contains a good discussion of financial constraints faced by the business community.

Ginindza, Thoko, "Swazi Culture and Small Business: Traditional and Modern Beliefs and the Role of Assistance in Small Business Development," Swaziland Training for Entrepreneurs Project, CARE International, Manzini, 1989.

Another version of the "culture as constraint" theme. Interesting reading.

Russel, Margo, "Swazi Culture and Small Business," Swaziland Training for Entrepreneurs Project, CARE International, Manzini, 1989.

The principal study in this series. Interesting reading but no analysis.

Sibisi, Harriet, "Keen Farmers on Swazi Nation Land," Ministry of Agriculture and Cooperatives, Mbabane, 1981.

A fine study by a SiSwati-speaking sociologist. Defining "farmers" as individuals committed to farming as a livelihood,

Sibisi argues that commercial farming entails economic hardship and is socially risky on Swazi Nation land.

Government of Swaziland: Agriculture

Agricultural Development Strategy of the Kingdom of Swaziland, Ministry of Agriculture and Cooperatives, Mbabane, 1986. Agricultural development through intensified land use and diversification.

Mamba, Sipho Hezekiel, "The Challenge for Africa," Symposium on the Development Partnership in World Agriculture for the 90s, Washington, D.C., September 14-15, 1988, Ministry of Agriculture and Cooperatives, Mbabane, 1988.

The Minister of Agriculture's call for African leadership in the development of African nations.

Rural Development Areas Programme Review, Ministry of Agriculture and Cooperatives, Mbabane, 1983.

A comprehensive review of the integrated rural development program meant to induce a more productive use of crop and pasture land on SNL. The resettlement of Swazis was an important feature of the RDAP.

Subsector Strategies for Agricultural Development in the Kingdom of Swaziland, Ministry of Agriculture and Cooperatives, Mbabane, 1987.

A strategy for addressing constraints to agricultural development.

Swaziland Census of Agriculture 1983-1984, Central Statistics Office, Mbabane, 1989.

The most recent complete census of agricultural production on SNL and TDL.

Government of Swaziland: Economic

Annual Statistical Bulletin, 1986, Central Statistics Office, Mbabane, 1987.

Basic social, economic, and demographic data.

Development Plan, 1989-92, Economic Planning Office, Prime Minister's Office, Mbabane, 1989.

The planned development programs of the public sector and of central government in particular.

Swaziland Economic Review and Outlook, Economic Planning Office, Prime Minister's Office, Mbabane, 1988.

A recent addition to the statistical fray. It provides an overview of the most recent economic trends and presents an outlook for the coming years.

Swaziland National Income and Expenditure Survey, Central Statistics Office, Mbabane, 1988.
Much useful information drawn from nearly 4,000 households.

Land Tenure

Armstrong, Alice K., "Legal Aspects of Land Tenure in Swaziland," Ministry of Agriculture and Cooperatives, Mbabane, 1986.

A compilation of laws relating to land in Swaziland, with particular emphasis on land used for agricultural purposes. A study in the Land Tenure series.

Brown, C.K., ed., "Report of the National Workshop on Land Tenure in Swaziland," Social Science Research Unit, University of Swaziland, Kwaluseni, 1988.

A review of the findings of the Land Tenure Project. The deliberations of the workshop participants are summarized. The land tenure policy option which is recommended to government calls for "incremental reform" of the traditional tenure system.

Bruce, John W. and Mark Marquardt, "Summary of Research Findings and Review of Policy Options: Changes in Agricultural Land Use in Swaziland," Ministry of Agriculture and Cooperatives, Mbabane, 1988.

A comprehensive review of the Land Tenure studies and the policy options they generate by the Director of the Land Tenure Center, University of Wisconsin.

de Vletter, Fion, "A Study of Smallholder Irrigation Schemes in Swaziland" (draft), Ministry of Agriculture and Cooperatives, Mbabane, 1987.

A discussion of a popular approach to land intensification by a leading figure in Swazi social studies. A study in the Land Tenure series.

Flory, Bruce, "Constraints to Commercial Agriculture on Swazi Nation Land," Ministry of Agriculture and Cooperative, Mbabane, 1987.

The "advanced farmer" is described as commercially active and facing constraints emanating from traditional land use management. One of the better studies in the Land Tenure series.

Levin, Richard M., "Land Tenure Arrangements on Agricultural Production Schemes" (draft), Ministry of Agriculture and Cooperatives, Mbabane, 1987.

Some useful background on the better-known production enhancement schemes. A study in the Land Tenure series.

Marquardt, Mark A., "Changes in Agricultural Land Use: Traditional Sector Survey" (draft), Ministry of Agriculture and Cooperatives, Mbabane.

A voluminous quantity of statistical information on land tenure and homestead attributes. The source of the maxim that the traditional tenure system is not a constraint to agricultural production as it is presently practiced. A study in the Land Tenure series.

Rose, Laurel, "Customary Land Dispute Management in Swaziland," Ministry of Agriculture and Cooperatives, Mbabane, 1987. Customary adjudication of land disputes. The first chapters on the historical setting are particularly interesting. A study in the Land Tenure series.

Private Sector

Capricorn Africa Economic Associates, "A Description of the Private Sector in Swaziland," Labat-Anderson Incorporated, USAID, Mbabane, 1989. A thorough review of private sector activity in Swaziland. A valuable resource document.

Investment Climate and Private Sector Assessment of the Kingdom of Swaziland, Dimpex Associates, Inc, USAID, Mbabane, 1987. An up-beat assessment of the environment for private sector development, including profiles of the nation's economic sectors. The CAPM project is cited as an impending attempt to expand agribusiness through more productive use of SNL.

Manual for Action in the Private Sector, Labat-Anderson Inc., USAID, Mbabane, 1989. Largely graphic presentation of private sector activity. Much information.

Women in Development

Ginindza, Thoko, "Swazi Women: Sociocultural and Economic Considerations," (draft) May, 1989, Labat-Anderson Incorporated, USAID, Mbabane. A useful review of the status of women in Swazi culture and society. A source of numerous statistics on women.

Sachs, Carolyn and Christine Roach, "Women and Agricultural Production on Swazi Nation Land", USAID, Mbabane, 1983. A comprehensive review of women's participation in the agricultural economy.

CAPM

Swaziland Commercial Agricultural Production
and Marketing Project

PRIMARY BASELINE REPORT

Findings and Conclusions

Edward Robins

Mbabane, Swaziland

November 1989

This report has been prepared under the United States Agency for International Development contract No. 645-0229-C-00-9019.

It is submitted to the government of Swaziland, the ministries of Agriculture and Cooperatives; Commerce, Industry, and Tourism; Education; and Finance; and to the United States Agency for International Development.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF ACRONYMS	i
MAP OF SURVEYED HOMESTEADS	ii
SECTION I INTRODUCTION AND BACKGROUND	1
A. Preface	1
B. Methodology	3
C. Project Description and Summary	6
SECTION II EVALUATION OF BASELINE REPORT	15
A. Composition of Sample	15
B. Homestead Human Resources	19
C. Homestead Physical Resources	21
D. Agricultural Production	22
E. Marketing	29
F. Income and Expenditure	31
G. Quality of Life	32
H. Summary	34
SECTION III TARGET POPULATION PROFILE	38
A. Composition of Sample	39
B. Homestead Human Resources	40
C. Homestead Physical Resources	41
D. Agricultural Production	41
E. Marketing	44
F. Income and Expenditure	45
G. Quality of Life	46
H. Summary	47

TABLE OF CONTENTS
(continued)

	<u>Page</u>
SECTION IV NOTABLES SPEAK OUT	50
A. Land Resources	51
B. Human Resources	52
C. Policy Resources	52
D. Political Resources	53
E. Summary Comments	54
ANNEX A - BIBLIOGRAPHY	A-1
ANNEX B - NOTABLES INTERVIEWED	B-1
ANNEX C - ANNOTATED BIBLIOGRAPHY BY SUBJECT AREA	C-1

ACKNOWLEDGEMENTS

The Swaziland Commercial Agricultural Production and Marketing (CAPM) project is designed to develop agribusiness and promote commercial farming in Swaziland. The project calls for a series of "baseline" studies to facilitate initial orientation and planning. This report, the "Primary Baseline," focuses on attributes and concerns of rural Swazi homesteads as they endeavor to commercialize agricultural production.

Most of the information in this report is drawn from a survey of 154 individuals. This original material represents a rich data base which has only begun to be analyzed. In this report, a baseline of rural homestead attributes and a profile of commercial homesteads are presented.

A survey of the magnitude undertaken for this study in a period of 10 weeks requires an extraordinary effort on the part of numerous individuals. This endeavor was successfully completed with the support and assistance of the government of Swaziland. Particularly helpful were Nomathemba Dlamini, Swaziland's former research and planning director of the Ministry of Agriculture and Cooperatives (MOAC); and Roger Carlson, the director of the United States Agency for International Development (USAID).

A strong team was organized for the survey effort. The initial questionnaire was reviewed by several members of the economic analysis and planning unit of the MOAC under the direction of Sam Hlope. In particular, Tsenjiwe Dlamini offered guidance and insight.

The survey was administered by Khalipha Management Services of Mbabane and Peter Capozza. Drs. Barnabas Dlamini and Comfort Mndebele supervised the team of enumerators which included Chamkile Dlamini, Fikile Gamedze, Sipho Mkhonta, Nomsa Mndebele, Dumsani Mthumbu, and Jeremiah Skosana. Helma Healy assisted in the preparation of the questionnaire. Ronald Batie dutifully reviewed and coded each questionnaire prior to data processing. A thank you to them all.

The arduous task of processing the data was accomplished with competence and grace by Christine Lutwama. Without her steady performance, the analysis of survey results would have taken considerably more time than it did.

The members of the CAPM team were actively a part of the baseline process from start to finish. For their support, encouragement, and technical insight, a special thanks is due to James Bunnell, Conrad Fritsch, Robert Olson, P.J. van Bloklund, and, especially Chief of Party Kimball Kennedy. Thanks also to

USAID's Private Sector Officer Charles Jenkins for his generous assistance.

Despite the best of intentions, surveys undertaken in a developing country like Swaziland can become untracked and delayed. For his role as facilitator and also as a tutor to a newcomer to Swaziland, Absalom Dlamini, assistant commissioner of cooperatives and CAPM chief of party counterpart, is offered grateful appreciation.

Edward Robins
Mbabane, Swaziland
November 1989

LIST OF TABLES

1.	Sex of Respondent by Geographical Zone	16
2.	Marital Status	16
3.	Location of Production Groups	18
4.	Sex of Respondent by Membership in a Production Group	18
5.	Distribution of Homestead Labor	20
6.	Site of Off-Farm Wage Earnings	20
7.	Agricultural Implements Owned	22
8.	Quantities Produced and Sold	23
9.	Constraints to Making Money from Agriculture	24
10.	Agricultural Inputs Used	26
11.	Use of Cash and Credit to Purchase Agricultural Inputs	27
12.	Land Acquisition	28
13.	Markets Used and Preferred	29
14.	Perceptions of Marketing Arrangements	30
15.	Sources of Homestead Income	31
16.	Desired Improvements in Quality of Life	34
17.	Sex and Location of Commercial Producers in the Baseline Sample	39
18.	Preferred Markets of Sampled Respondents	45
19.	Primary Sources of Homestead Income for Commercial Producers	45