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THE AGRICULTURAL ECONOMY

OF

S W A Z I L A N D

(A REVISED EDITION)

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PREFACE

This report on the Agricultural Economy of Swaziland has been prepared for the Food and Agricultural Organization of the United Nations (FAO) by Mr. John A. Menz, FAO Officer-in-Charge in Swaziland and Director of Research and Planning within the Ministry of Agriculture and Cooperatives, and Mr. Finn Tarp, Programme Officer (Associate Expert).

The report, which is a revised and up-dated edition of "The Agricultural Economy of Swaziland" which was prepared by the same authors in 1979, has been requested by FAO's Regional Bureau for Africa in the Field Programme Development Division. The "Terms of Reference" are in accordance with the "Instructions for Reporting by FAO Representatives". However, the present report is not only intended to up-date existing information, but rather to give an overall view and analysis of the Swazi economy with special emphasis on the Agricultural Sector.

As compared to the 1979 edition the present edition presents a more comprehensive overview and analysis, and a number of criticisms on the earlier report from FAO Headquarters have been taken into account. In addition, the present edition has been prepared over a longer timespan and it has consequently been possible to analyse and check the factual information more carefully than possible in 1979.

Four main Chapters make up the report. Chapter I is a general overview of the whole economy concluding in a Section on National Development Plans and Future Development Prospects. Chapters II and III are descriptive in nature and contain agricultural information and information on institutional arrangements and agricultural services. Chapter IV is the analytic core of the agricultural chapters. Fundamental problems and constraints are identified and related to the Government's Development Programme and the external assistance component hereof. Several Annex'es contain supplementary information, for instance information on the organizational structure and the budget of the Ministry of Agriculture and Cooperatives and external assistance to the Kingdom.

Besides the References indicated, extensive use has been made of existing project documents, reports and other internal FAO and UNDP materials.

It is our hope that the basic characteristics of the economy of Swaziland are revealed in the report and that it in addition to serving as a useful reference will facilitate the overall programming and preparation of project documents for the Third UNDP Country Programming Cycle. However, it must be kept in mind that the views expressed are our own.

Mbabane, 19 November 1980

John A. Menz / Finn Tarp

I. COUNTRY INFORMATION

1. Geographical and Physical Features

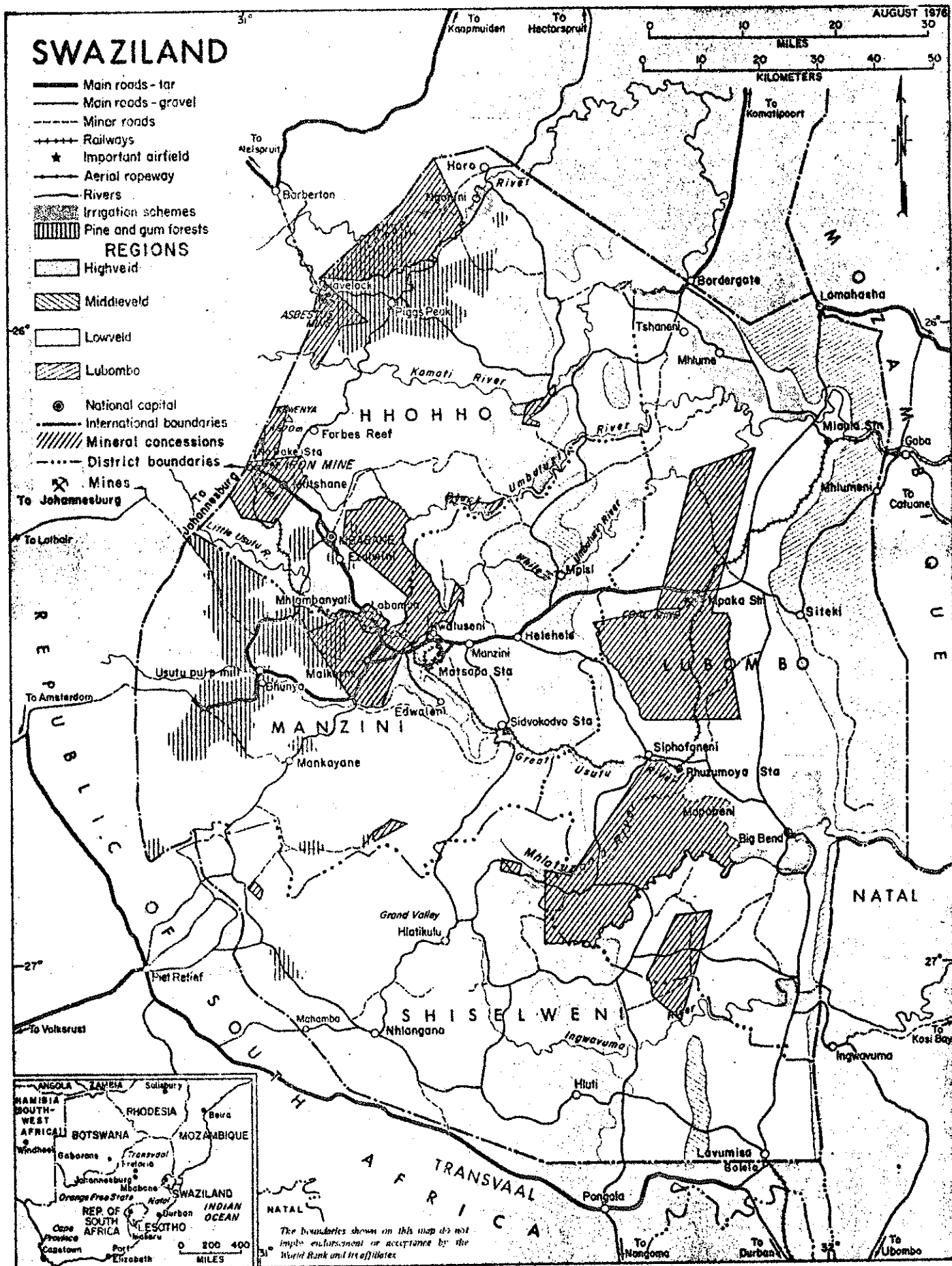
The Kingdom of Swaziland (17,364 sq km), the second smallest country on the African continent, is a landlocked country, surrounded by South Africa and Mozambique. The country is divided into four well defined topographic regions running from north to south in roughly parallel belts as can be seen in Figure 1 below. Regional characteristics can be described briefly as follows:

Highveld (Inkangala): A mountaineous (average elevation 1,300 m ranging from 900 to 1,900 m) area (5,200 sq km) in western Swaziland. Annual rainfall is between 1,000 and 2,300 mm with an average of 1,270 mm, of which 75% falls in the summer season from October to March. Average mean temperature ranges from 22.6 to 10.8°C. The area is highly mineralized (with soils predominantly deep red and yellow ferralites on an ancient granite base) and well suited to forestry, especially conifers and gum trees. The natural vegetation consists of short "sour" grasses and scattered remnants of indigeneous woodland. Livestock graze all year round. Few cash crops are grown although cotton is found in the south. The main crop is maize.

Middleveld (Live): An area of fertile soil lying east of the Highveld. Middleveld (4,700 sq km) is an area characterized by rolling terrain ranging from mountaineous in the west to gently undulating savanna in the east (average elevation 700 m ranging from 350 to 1,000 m). Annual rainfall is between 750 and 1,150 mm with an average of 940 mm. Average mean temperature ranges from 26.2 to 11.7°C. The soils are typically ferallitic and ferruginous tropical overlying granite. Long grass covers the greater part of the Middleveld. Maize is the main crop grown on Swazi Nation Land, but other crops such as beans, cotton, groundnuts, sorghum, tobacco and vegetables are also grown. Cotton, fruit (especially pineapple and citrus) are the most important crops on freehold title farms.

Lowveld (Lihlanze): is a generally flat (average elevation 200 m ranging from 60 to 375 m) area (6,400 sq km) with characteristic vegetation. Lowveld is also called Bushveld. Annual rainfall is between 500 and 900 mm with an average of 660 mm. Drought hazard is marked. Average mean temperature ranges from 29.8 to 15.4°C and frost frequently occur in drainage lines during winter. Soils are derived from granite and karroo sediments in the west and basic igneous rocks in the east. The original subtropical savannah climax has given way to sparse woodland, thorn scrub and tall grass ("sweet" veld).

Figure 1: Map of Swaziland



Cattle ranching, sugar cane, citrus, rice and cotton under irrigation are the main agricultural activities. About 25,000 hectares are under irrigation.

Lubombo: A plateau (1,300 sq km) in the extreme east of the country rising from the Lowveld in a sharp escarpment (average elevation 600 m ranging from 450 to 840 m). Annual rainfall is between 750 and 900 mm with an average of 850 mm. Average mean temperature ranges from 24.9 to 13.9°C, and the area is frost free. Soils are predominantly red and brown ferruginous derived from rhyolites and basalts. Climax vegetation of mixed scrub forest has given way to mixed grassland and thornveld. Main agricultural activities are ranching and mixed cropping with maize as the most important crop.

Major urban areas are. the administrative capital of Swaziland, Mbabane, with approximately 23,000 people according to the 1976 census; Manzini with approximately 10,000 people is situated 10 km from the developing industrial area of Matsapha and 40 km from Mbabane. Greater Manzini had a population of almost 29,000 in 1976. Other main centres with 1,000 to 5,000 people are Pigg's Peak, Bulembu, Bhunya, Mhlambanyathi, Big Bend, Siteki, Nhlanganano, Hlatikulu, Sidvokodvo, Tshaneni, and Mhlume. The Lobamba Royal Village (15 km from Mbabane) is the centre and spiritual home of the traditional Swazi Nation. The King's residence, Embo State House, the Parliament Building, and the Somhlolo National Stadium are all located at Lobamba.

2. History

The Swazi people are descendants of the Southern Bantu, who migrated southwards from the lakes of central Africa, many centuries ago. In the 16th century, the Swazi people lived near Maputo, the capital of Mozambique. Led by the Chief Ngwane II, they later moved into what is now southeastern Swaziland. Here they absorbed the Nguni and Sotho clans already living there and brought them under the Dlamini hegemony; and from Mswati II who was proclaimed King in 1840 the Swazi Nation as such came into existence. The present King Sobhuza II who was installed in 1921, is the longest reigning monarch in the world.

British traders and Afrikaner settlers first came to the area in the 1840's and secured many and varied concessions from the Swazi Kings. In the 1980's gold was discovered and prospectors rushed in and persuaded the Swazi Chief Mbandzeni to sign documents granting them mineral rights and land which according to some, exceeded the actual territory available.

The economy became totally dominated by foreign companies and colonialists who could exploit the cheap labour on their plantations, and the development of a Swazi commercially oriented farming and trading class was effectively blocked.

Around the same time the gold and diamond-mining in South Africa led to an increased demand for labour that was partly met through migrants from neighbouring countries. Traditionally the Swazis got contracts for up to nine months allowing them to return to the ploughing in September-October whereas women and children took care of the subsistence farm during the rest of the year.

In 1884, the Convention of London guaranteeing the independence of Swaziland and specifying its borders, was signed. The British administration of Swaziland commenced in 1902 after the end of the Boer War. The territory was kept intact when the Union of South Africa was formed in 1910, and was jointly administered by Swazi rulers and a British High Commission.

The consequence of the process described above became a system where the migrant workers and the labourers on the plantations were closely attached to their homesteads which were necessary for the family as a whole to survive. The system was clearly to the advantage of mining companies and colonialists who could pay lower wages than otherwise possible. However, also the traditional Chiefs benefited as they could sustain their power as they completely controlled the allocation of land which was not foreign owned. That is, the traditional Swazi society and subsistence agriculture continued its existence and the only change was that the men sometimes were employed in South Africa or on the plantations.

In 1967, Swaziland gained control over its internal matters and received full independence in 1968. This led to an increase in the power of the traditional leaders who became involved in economic enterprises and were able to buy land and cattle. However, their increased importance politically as well as economically did not lead to interventions against foreign capital and former colonialists. On the contrary, foreign capital investments were encouraged and the cooperation between traditional leaders, foreign capital and former colonialists was expanded to include economic aspects. An example is the Tibiyo Taka Ngwane Fund and its operations (cf. section 5.4); but the present social, political and economic situation will be further discussed in consequent sections.

3. Political and Executive Structure

To fully grasp the present social, political and executive structure of Swaziland it must be constantly kept in mind that the social order is predominantly traditional. Individual actions are to a large extent determined by tradition and the social values of duty, honour, personal loyalty and standards of right and wrong. The role of the Swazi King is unique. He is the living symbol of the traditions of his people and endowed with mystical and sacred qualities. The King plays an essential role in the performance of traditional rituals taking place every year, and he is also considered "the mouth that tells no lies" by his people.

Swaziland's political structure, effectively controlled by the King, is based on an unusual dichotomy which arises from (but also partly explains) the dualism of the economy. The King is head of the Swazi state and rules in consultation with a cabinet and the parliament. This is, however, controlled by the traditional government with the Swazi National Council (SNC) as the key institution and the Dlamini clan (King's family) is overwhelmingly influential.

With regard to the modern system, a new constitution, which established rights, privileges and duties of the people with the King as Head of State, came into being shortly before Independence in 1968. However, in April 1973 the King repealed the constitution arguing that it was inadequate for the country's traditions and political customs. Until 1978, the country was ruled by royal decrees through a Council of Ministers appointed by the King and in whom all legislative, executive and political power was vested. In November 1978, a two-chambered Parliament consisting of the House of Assembly and the Senate, was established. The Senate comprises 20 members of whom ten are elected by the House of Assembly and ten appointed by the King. The House of Assembly consists of 50 members, 40 of whom are elected by an 80-member Electoral College and ten appointed by the King. It should be noted, however, that the election of the college is tightly controlled and political parties do not exist. In each of the 40 Tinkundla areas two persons are elected; but the names of the candidates are only made public on the morning of the election, and the nomination procedure is controlled by the Chiefs. The above changes therefore imply an institutionalization of the traditional power structure, and the political opposition that exists among well educated young Swazis continue to be relatively disorganized and without clearly defined political goals. A more radical opposition,

with unknown strength and roots back to the Ngwane National Liberatory Congress (NNLC) also exists; but its activities have been curtailed since a number of its leaders until recently were detained and the party was declared illegal in 1973.

Executive power is vested in the King who appoints the Prime Minister. The Deputy Prime Minister and all other Ministers are also appointed by the King and must be members of either chamber of Parliament. A list of Cabinet Ministers and Civil Servants is given in Annex 3.

A modern military defence force (Umbutfo weMbube) was established after 1973; it is estimated that approximately 1% of the population are enrolled and in addition several thousands are characterised as week-end soldiers.

The police force has been expanded rapidly over the last few years; in general it is considered to be better educated and more disciplined than the army.

As regards the traditional system the King is theoretically advised by the National Gathering (Libandla) of the Swazi National Council (SNC), consisting of all adult Swazis. However, most meetings only involve important chiefs and other leading advisors, and in practice, effective power has been passed to the Inner Circle (Liqoqo) which is the executive committee of the SNC, whose members (mainly elder princes and other members of the Royal Family) are appointed by the King. The term SNC is commonly used even when reference is made to the Inner Circle, which as mentioned above possesses substantial power especially on all matters connected with Swazi law and custom and Swazi National Land and derives its powers from the traditions of the Swazi people. Annex 2 gives an indication of the key position the SNC occupies; and in addition it must be kept in mind that the traditional and modern systems are woven together in a net of personal relationships. In brief the modern Government is concerned with the relations of the state to the modern sector of the economy and other countries; but it is the SNC which determines the ideological limits and in case of conflicts is able to enforce its decisions.

There are two systems of courts in Swaziland. The first consists of the 14 Magistrates courts, two High courts and a court of Appeal which interprets and administers the statutory law and fall under the Ministry of Justice. The traditional Swazi National Courts, which have civil and limited criminal jurisdiction over Swazi citizens, administer Swazi law and custom.

For purposes of territorial administration, Swaziland is presently divided into four districts: Manzini, Hhohho, Shiselweni and Lubombo. A District Commissioner is responsible for administration within each district, and he is supported by a Senior District Officer for the sub-districts (i.e. a part of each district administered by a sub-office of the district. Each district has one sub-district).

The Ministry of Home Affairs is responsible for all territorial administration which is concerned principally with maintenance of law and order and assistance to traditional authorities in administrative and judicial matters. Most executive ministries of Government are represented at the district level and form part of the district team chaired by the District Commissioner. The team normally meets once a month.

The role of the District Commissioner is that of a coordinator of all government activities within his district. Since basic planning and budget decisions are made at the central government level his role is somewhat restricted.

The District Commissioner administers a budget, allocated by the Ministry of Home Affairs, which principally covers administrative expenditures together with district road maintenance and other local responsibilities. The District Commissioners also administer some funds for local self-help type projects. At the initiative of the community, chiefs are authorized to raise funds from their followers for specific purposes. The Government may also provide additional funds and technical assistance as required. The most popular projects are spring protection, small irrigation schemes, school expansion, clinics, bridges, markets, and sports grounds. The District Commissioners are actively involved in the design, funding, and execution of such projects.

There is at present no local government system within the modern government. The principal instruments of local government on Swazi Nation Land are the approximately 100 chiefs and the approximately 150 Tindvunas who function as deputies to the chiefs. However, approximately 40 Tinkundla Centres

are in the process of being established and each of these have an Indvuna appointed by the King to liaise with the chiefs and the King. The Tinkundlas will become local councils, and they are eventually supposed to take up an essential role as administrative units within each region and provide the basis for a new system of Government in the absence of political parties. Forty Regional Administrators will be appointed to replace the District Commissioners and all the 80 members of the Electoral College mentioned above will act as regional councillors. This system is yet to be fully established, however, and it also remains to be seen how it will function. Due to Swaziland's small size and the tradition of a strong executive, administration has so far tended to be highly centralized with virtually all administrative and political matters referred to the Central Authorities. The King has also stressed that the Tinkundla system is no more than an experiment, and the future role of its different elements is far from settled, although it appears certain that the traditional power structure will remain intact.

4. Population, National Resources and Physical Infrastructure

According to the 1976 Census, the de facto population of Swaziland was 495,000 made up of approximately 483,000 Africans and 12,000 of other origins. More than 57% of the resident African population was under 25 years of age and 53% were females. There were an estimated 31,000 African absentees, the majority employed as mine labourers in South Africa.

The average annual growth rate in the de facto population was 2.8% over the 1966-76 period. However, this figure takes account of non-Swazis who immigrated, and projected figures for the 1977-86 period indicate an alarming rate of increase of the African population of approximately 3.4% per annum, which is among the highest in the World. Most of the country's population of almost 600,000 in 1980 is rural. The 1976 census reported about 80,000 people (15%) in urban areas. However, this figure is increasing rapidly (estimated at 10% per annum) because of migration from rural to urban areas.

The population density (almost 30 inhabitants per sq km) is uneven, with a greater concentration in those rural areas more suitable for agriculture and husbandry. For instance, 40% of the population live in the Middleveld where the average population density is more than 43 per sq km. However, a complex pattern of landownership with Swazi and European holdings intricately interwoven throughout the country is partly responsible for considerable variations in the distribution and density of the population.

Swaziland's potential for economic development in terms of natural resources is quite promising provided adequate conservation measures are undertaken.

The country's perennial rivers represent a high hydroelectric potential and in the drier Middle and Low velds a number of large irrigation schemes have been initiated. The Swaziland Electricity Board (SEB) meets about 60% of total electricity requirements with the balance being obtained from South Africa. There are presently two hydro-electric power stations and four large industrial concerns generate a substantial part of their own requirements under license from SEB. The well-watered High Veld is particularly suitable for afforestation and over 80,000 hectares have been planted with conifer and eucalyptus since the 1940's. Swaziland also possesses considerable deposits of asbestos and coal. High grade iron ore has had an important role as a major export, but its importance is now declining due to depletion of deposits.

The physical infrastructure is relatively adequate. There are 2,700 km of roads, of which 16% are tarred, and most areas are readily accessible by road. However, it must be pointed out that major progress did not take place until after the mid-1970's, and due to the increase in traffic some of the roads are quickly deteriorating. Almost 28,000 vehicles were registered in 1979. A 224 km long railway line from the far west eastwards to Mozambique was put into use already in 1964 and a new 94 km line southwards to Richards Bay in South Africa has just been built. Swaziland also has a limited capacity international airport at Matsapha with regular flights to South Africa and Mozambique as well as other African countries. The Royal Swazi Airways Corporation started its operations in 1978. Internally, there are 24 airstrips.

There are at present 53 post offices so the average area served by each office is 327 sq km. There is no house to house delivery but post office boxes are available and there is also a private bag service. The total number of telephones and telex subscribers have increased at a high rate over the past decade and there are now 10,000 telephones and almost 200 telex subscribers.

Radio broadcasting commenced in 1966 and it has been estimated that 78% of the homesteads have at least one radio. The Swaziland Broadcasting Service (SBS) broadcast on medium wave and FM. Swaziland Television and Broadcasting Corporation (STBC), a subsidiary of the British Electronic Rentals commenced transmission in 1978. Most programmes are imported and over 3,000 licenses have been sold with an estimated viewership in excess of 23,000 in April 1979.

5. Economic and Social Conditions

5.1 Economic Growth, Dualism and Dependence

In the early years of the 1970's Swaziland experienced rapid economic growth, and it is estimated that Gross Domestic Product (GDP) grew at an average annual rate of some 15% in real terms. From 1976 to 1978 the economy stagnated due to depressed export prices for sugar and woodpulp and increases in import prices, especially for fuel. Since 1978/79 there has been an economic revival, but the rate of growth has not been high and because of the lumpy nature of investment relative to GDP substantial changes occur from one year to the next. Although it may be higher it appears that an average annual growth rate of 2 to 3% is a reasonable estimate for the second half of the 1970's. This implies, however, that GDP per capita has been static or possibly even declining from 1976/77 because of the high rate of population increase. Due to the absence of reliable data estimates of GDP per capita vary widely from the IMF figure for 1976/77 of E567 (US \$ 650) to E460 (US\$530). The latter figure is based on an IBRD mission report from 1978 and is presently being used by Government. Table 1 below shows the GDP by industrial origin. It appears that Agriculture and Forestry and Mining have smaller shares of GDP in 1976/77 than in 1973/74 whereas especially General Government has increased its share.

Table 1 : GDP by Industrial Origin 1973/74 - 1976/77

Million Emalangeni at current prices	1973/74	1974/75	1975/76	1976/77
Agriculture and forestry	33.5	40.7	47.1	52.7
Mining and quarrying	10.3	13.6	17.3	17.1
Manufacturing	34.2	42.5	57.4	65.8
Water and electricity	2.0	2.2	2.4	2.6
Construction	4.3	3.5	4.1	6.1
Trade and tourism	18.9	23.1	30.6	36.4
Transport and communications	7.4	9.3	12.7	15.4
Financial services	3.2	4.5	7.3	8.5
General government	11.8	19.0	22.1	30.7
Community, social and personal services	2.7	2.9	4.0	4.4
Other services	2.6	2.5	4.5	5.1
GDP at factor cost	130.8	163.8	209.5	244.8
Net indirect taxes	<u>15.7</u>	<u>29.5</u>	<u>44.2</u>	<u>27.7</u>
GDP at market prices	146.5	192.3	253.7	272.5
<u>Memorandum items:</u>				
(In per cent of GDP)				
Agriculture and forestry	25.6	24.8	22.5	21.5
Mining and quarrying	7.9	8.3	8.3	7.0
Manufacturing	26.1	25.9	27.4	26.9
Trade and tourism	14.4	14.1	14.6	14.9
General government	9.0	11.6	10.5	12.5

Source: International Monetary Fund "Swaziland - Country Report" (1980)

The structure of the Swazi economy is characterized by the familiar dualism which exists between the traditional and modern sectors of many developing countries, and the overall economic growth has almost exclusively taken place in the modern sector. However, the above distinction must not be conceptually confused with an urban/rural dichotomy. In Swaziland the dichotomy is primarily between the modern, capital-intensive and commercialized (estate) farming sector and the small scale farmers on Swazi Nation Land (SNL) producing mainly for domestic consumption.

The modern sector is engaged in the production and processing of primary products including timber, sugar cane, cotton, citrus and pineapples. The mining sector is now concentrating on asbestos due to the cessation of iron ore mining in 1977. It is estimated that the modern sector accounts for about 90% of GDP and employs approximately 30% of the potential labour force.

The traditional sector which directly supports about 70% of the population and accounts for only 10% of GDP is dependent on semi-subsistence cropping and cattle rearing. Important crops are maize, beans, groundnuts, sorghum, potatoes, cotton and tobacco.

Besides being dualistic, Swaziland is also a highly dependent economy. The most obvious and important dependence is with respect to South Africa. The core-periphery relationship between South Africa and Swaziland has had polarizing effects on developments in the latter. In terms of employment, Swaziland is to some extent dependent on South Africa. About 93% of Swaziland's imports originate in or pass through South Africa, and roughly 20% of her exports are absorbed by South Africa. Nearly 55% of Government's revenue is derived from customs generated by the Customs Union with South Africa. The Government's fiscal latitude is, therefore, to a large extent determined by this source of revenue. In the monetary field, Swaziland is also heavily influenced by the larger neighbour. The Government began to issue its own currency in 1973 but it is pegged to the South African Rand and fluctuates with it. Swazis who migrate every year to South Africa for work in the mines for periods varying from six months to two years constitute a decreasing but still substantial part of total paid labour force.

Internally, the country is dependent on a few mainly British or South African owned establishments (CDC, Lonrho, Anglo American, Courtauld, Turner and Navall, Libbys and Imperial Cold Storage) for most of its industrial and commercial agricultural production.

Export trade is largely in the hands of foreigners and even the distribution system and most of the wholesale and retail trade, at least in urban areas, is controlled by foreign-owned enterprises (i.a. OK Bazaars) and this is characteristic for the expanding tourism sector also (i.a. Rennies Group and Southern Sun). Further, the country relies heavily on foreign professional and technical manpower. While some progress in localisation of jobs has been made 22% of professional and technical jobs, 54% of administrative and managerial and 19% of all skilled jobs were still held by non-Swazis by 1977.

5.2 External Trade

Because of its limited domestic market, most of Swaziland's modern sector production is exported. The value of f.o.b. exports, estimated to be E195.5 million in 1979, accounts for approximately 65% of the GDP. Of this sugar (37%), woodpulp (15%) and minerals (12%) account for about two-thirds of the total export value. However, iron ore declined from a high of 22% in 1971 to 3% by 1979 and will soon not contribute at all due to the depletion of deposits. Other major exports include citrus, and canned fruit - especially pinapples - chemicals, meat and electronic equipment with respectively 12, 5, 3 and 2% of total export value. It is possible that newly discovered coal deposits may allow this mineral to become a major export in the future.

Swaziland's export markets are quite diversified with United Kingdom (mainly sugar, asbestos and citrus), South Africa and USA (mainly sugar) as the three most important in 1976. These three countries accounted respectively for approximately 30, 20 and 10% of the total. Other markets are Japan and several countries in the Middle East, Europe and Africa.

Imports have risen in every year since Independence reflecting public sector investment and import price trends quite closely. Total imports c.i.f. in 1978 were E271 million, 39% above the 1977 level. Construction materials and equipment for the Third Sugar Mill and the aircraft for the Royal Swazi Airline are the two main contributors to this rise in imports. Machinery and Equipment (25%) continues to be an important import component but from 1977 Commodities Not Classified by Kind (28%) is the most important. Manufactured Goods (18%), Mineral Fuels and Lubricants (10%) and Chemicals and Chemical Products (9%) are other major components. Imports of Food and Live Animals (7%) continue to be fairly important indicating Swaziland's continuing dependence on other countries, and particularly South Africa, for some major food items. Imports in 1979 have been estimated at E300 million, 10% above the 1978 level. Most of Swaziland's imports (93%) either originate in or pass through South Africa reflecting Swaziland's almost complete dependence on South Africa for all major import items.

Statistics on the terms of trade are not systematically compiled. However, since sugar, woodpulp and asbestos account for approximately two thirds of the export value their unit values provide a reasonable estimate of the export price trend. In addition, South African price developments are a reliable indication of Swaziland's import price trend. These estimates indicate that the terms of trade deteriorated by approximately 50% (in terms of Emalangeni) from 1975-78. In 1979 it is estimated that the terms of trade improved by some 8% despite large increases in import prices for oil and foodstuffs.

5.3 Balance of Payment

Reflecting the above developments Swaziland's external payments position was weakening up to 1978 in which year the traditional trade balance surplus turned into a deficit of some E21 million. In addition, out-payments for services such as freight and insurance, fares, transport and travel, have traditionally amounted to a figure substantially larger than in-payments. The net figure amounted to E82 million in 1978. Unrequited transfers amounted to E27 million and the overall balance on the current account therefore amounted to a deficit of E76 million. Due to a relatively large increase in exports in 1979 the deficit was reduced to approximately E60 million in that year.

On the capital account private net capital inflows have been a significant factor, but their magnitude was surpassed by the inflow of government capital in 1978, and since then the official flows have become the dominant element, reflecting rising public capital spending financed by foreign loans and increases in short-term official inflows related to the Customs Union's receipts.

It can in this connection also be noted that long-term capital inflows have increased their importance drastically from 1978.

For further details on the balance of payments see Table 2 below:

Table 2: Swaziland's Balance of Payment 1974/79

E'000	1974	1975	1976	1977	1978	1979 ^P
Merchandise						
Exports (f.o.b.)	121,500	145,719	168,400	159,856	173,902	195,495
Imports (f.o.b.)	- 67,428	- 94,757	-124,873	-140,421	-195,122	-216,150
Trade Balance	54,072	50,962	43,527	19,435	- 21,220	- 20,655
Services (Net)	- 27,183	- 11,485	- 19,448	- 21,611	- 82,134	- 68,581
Total Goods and Services	26,889	39,477	24,079	- 2,191	-103,354	- 89,336
Unrequited Transfers (Net)	11,492	11,018	12,841	19,759	27,354	29,707
Current Account Balance	38,381	50,495	36,920	17,503	- 76,000	- 59,629
Capital (Net)						
Short-Term	- 31,965	- 24,667	- 23,763	- 16,283	33,642	- 17,562
Long-Term	1,414	4,525	11,003	17,321	54,668	71,462
Increase in External Reserves	- 7,830	- 30,353	- 24,160	- 18,621	- 12,310	5,729
(- = increase)						

Note: P = Provisional

Source: Central Bank of Swaziland

At present Swaziland does have a healthy balance of payments which is unique for a developing country. Official reserves have been rising in recent years except for 1979 and in July 1980 stood at E125 million representing some four months imports. Looking at the prospects for the future, however, the depletion of iron ore reserves, uncertainty about long term sugar prices, the debt-servicing requirement which will increase significantly after November 1980, and increases in imports do not permit an optimistic outlook.

5.4 Public Finance

The public sector is as mentioned in Section 3 dualistic in structure with a modern institutional framework, directly accountable to Parliament, existing alongside the traditional government of the Swazi Nation. The modern sector comprises the Government, two municipalities, and a number of public enterprises. There are no consolidated accounts of the public sector, but available data indicate that the Central Government probably accounts for over 90% of total public sector spending.

Since 1979/80 the Central Government's recurrent and capital budgets have been presented in consolidated form, although actual transactions continue to pass through two separate funds. All revenues and current expenditures are channelled through the Consolidated Fund. Capital expenditure is effected through the Capital Fund, which is financed by foreign grant and loan proceeds and transfers of current account surpluses. Current expenditures are administered by Departments and Ministries, whereas capital expenditures, which are normally planned within the framework of the National Development Plan, are controlled by the Treasury on a project basis.

The routine administrative affairs of the traditional Swazi Nation Government are financed by the Swazi National Treasury, whose major source of revenue is an annual transfer from the Central Government (budgeted at E0.8 million in 1980/81). The assets of the Swazi Nation (mainly land and mineral rights) are administered by the Tibiyo Taka Ngwane Fund ("Tibiyo Fund"), a trust fund established by Royal Charter in 1968 to promote the living standards and education of the Swazi people, while preserving Swazi custom and traditional institutions. Originally, the Tibiyo Fund served mainly as the vehicle for reacquisition of Swazi Nation Land after Independence, but in recent years it has played an active role in modern sector development. The Tibiyo Fund now has shareholdings (generally on a minority basis) in iron ore, asbestos, meat and sugar production, and some commercial enterprises including a bank.

It also has a substantial equity participation in the Third Sugar Mill, and was the major force behind the establishment of the (nongovernmental) Royal Swazi Airways Corporation, the new national airline. Information on the financial activities of the Tibiyo Fund is limited, but total revenue from investments and mineral royalties is estimated at about E 7.0 million in 1979/80. The Tibiyo Fund has no constitutional links with the modern parliamentary government, and its investment plans are not subject to Central Government budget scrutiny; it has, however, been able to initiate Central Government guarantees on foreign borrowing by the national airline, illustrating the points made in Section 3.

The role of the public sector in the economy measured by total Government expenditure relative to GDP increased from 23 to 41% from 1975/76 to 1978/79 according to IMF (1980) estimates. Government final consumption relative to GDP can be estimated at approximately 15%.

In the financial year ending 31 March 1979, Government realised an estimated surplus of revenue over current expenditure of E49.6 million. This amount was placed against a capital expenditure of E54.3 million leaving an estimated E4.7 million overall deficit to be financed by debt.

On the basis of the revised estimates, revenue, including grants from abroad (E7 million), increased by E25.0 million to E106.2 million in 1978/79, and total expenditure and net lending by E59.0 million to E148.7 million. Government financed the overall deficit (E42.5 million) by foreign and domestic borrowing (and simultaneously was able to build up further its cash and deposit balances by E3.6 million).

The expansionary role of Government was curtailed in 1979/80 through a number of severe cutbacks in spending. Information on implementation rates by sector in 1979/80 is not yet available; but it may be expected that underspending as compared with the original budget was greatest for Social Services. The 1980/81 budget shows a return to a more expansionary fiscal policy than in 1979/80 with an almost 40% increase over the expected 1979/80 total expenditure.

Table 3, below, shows a summary of Central Government operations from 1976/77 to 1980/81.

Table 3: Swaziland: Summary of Central Government Operations, 1976/77 - 1980/81
(In millions of emalangi)

	1976/77	1977/78	<u>1978/79</u> Estimate	1979/80		<u>1980/81</u> Budget
				Revised budget	Provisional estimate	
Revenue and grants	<u>54.7</u>	<u>81.2</u>	<u>106.2</u>	<u>131.4</u>	<u>134.3</u>	<u>162.1</u>
Revenue	54.6	80.8	99.1	114.5	126.0	144.4
Of which:						
Customs Union	(13.1)	(38.9)	(54.2)	(74.2)	(74.2)	(86.8)
Sugar levy	(12.6)	(8.3)	(6.3)	(4.0)	(7.7)	(8.0)
income taxes	(20.5)	(24.3)	(26.8)	(25.7)	(32.7)	(37.0)
Grants	0.1	0.4	7.1	16.9	8.3	17.7
Expenditure and net lending	<u>63.1</u>	<u>89.7</u>	<u>148.7</u>	<u>156.4</u>	<u>145.4</u>	<u>202.7</u>
Current	40.2	48.5	56.6	63.5	63.7	80.2
Capital	17.4	26.7	54.3	92.9	59.6	85.7
Net lending	5.5	14.5	37.8	....	22.1	36.8
Current account Surplus	14.5	32.7	49.6	67.9	70.6	81.9
Overall surplus or deficit (-)	<u>- 8.4</u>	<u>- 8.5</u>	<u>-42.5</u>	<u>-25.0</u>	<u>-11.1</u>	<u>-40.6</u>
Total financing	8.4	8.5	42.5	25.0	11.1	40.6
External	- 0.5	5.6	26.2	....	18.2	39.6
Domestic	8.9	2.9	16.3	....	-7.1	1.0
Of which:						
banks	(12.7)	(-4.8)	(15.3)	....	....	....
nonbanks	(--)	(-0.1)	(5.8)	....	....	....
other	(-3.8)	(7.8)	(-4.8)	....	....	....

Source: International Monetary Fund, "Swaziland Country Report" (1980)

5.4.1 Current Revenue

Swaziland has as can be seen from Table 3 a relatively simple revenue structure. More than 85% of total revenue is derived from three principal sources: Customs Union receipts which include sales and excise taxes, the sugar levy and finally, taxes on income and profits.

Over the past years total revenue has fluctuated widely due to fluctuations in the sugar levy, Customs Union receipts and grants. In 1978/79 revenue amounted to an estimated E99.1 million.

Of particular note regarding Government finance is the significance of the 1969 Customs Union Agreement between South Africa and the three so-called BLS countries-- Botswana, Lesotho and Swaziland. Swaziland depends on revenue provided under this agreement for nearly 55% of its total Government Revenue. The agreement provides that South Africa assumes responsibility for setting tariff and excise tax rates and collecting all of the duties. The other countries in the Union are reimbursed out of the revenue pool by a formula which attempts to compensate them for the flexibility they give up. It was decided in 1977 to incorporate a stabilization factor into this formula, intended to dampen the heretofore quite sharp year-to-year fluctuations in the Customs Union revenue accruing to the BLS countries.

As a consequence of the revised agreement, Swaziland's Customs Union receipts nearly tripled in 1977/78, rising to E38.9 million, a new peak amounting to about 20% of the total (c.i.f.) import value of E195 million, and impressive increases in this source of income have taken place in 1978/79 and 1979/80 also.

It has been argued that the revenue formula is favourable for the BLS countries in terms of revenue created. However, the arrangement also has major disadvantages. There is a clear price raising effect of South Africa's import control measures and its policy of protecting South African industries. Furthermore, there is a very important loss of fiscal discretion. Swaziland cannot eliminate tariffs on necessary imports and has forfeited its right to set its own sales and excise taxes.

In order to generate additional revenue, Swaziland introduced in 1973/74 a levy on sugar. It is a 50% tax on ex-mill earnings from sugar above a base price per metric tonne as fixed by Government. Sugar levy receipts amounted

to E6.3 million in 1978/79, E2.0 million less than in 1977/78 and off E17.6 million from the all time record of E23.9 million reached in 1975/76.

Income tax structure is, by and large, progressive. However, certain provisions in the existing legislation, which tend to benefit higher-income groups rather than lower income-groups, negate the objective of progressivity.

The tax rate on profits is lower than that prevailing in South Africa. Furthermore, like many developing countries, Swaziland offers tax incentives designed to attract foreign investment. Receipts from company and individual income taxes have increased steadily over the years to a new high of E26.8 million in 1978/79.

5.4.2 Current Expenditure

Total recurrent expenditure in 1978/79 is estimated at E56.6 million. This is about 15% higher than the previous year level and steady increases are foreseen.

General Services and Social Services which were of equal importance in 1978/79 accounted for more than 75% of current expenditure. Of General Services, General Administration is the most important part (42%) with Public Order and Safety (33%) and Defense (25%) second and third. Of Social Services Education and Health with respectively 69 and 22% are overwhelmingly important. Economic Services account for approximately 20% of total recurrent expenditure and Agriculture (48%), Roads (21%) and Water and Sewerage (14%) are the important sections.

5.4.3 Capital Expenditure

According to the revised estimates Government's capital expenditure climbed to a record E54.3 million in 1978/79 but considerably below the original budget of E79 million due to the cutbacks mentioned above. The overall rise reflects substantial expansions in outlays on General Services and on Economic Services which absorbed respectively 18 and 52% of total capital expenditure. Social Services accounted for the remaining 30%.

Of Government spending on Economic Services especially the tripling of spending on Agriculture is noteworthy. This is however due mainly to completion of the Fairview Dam which is part of the capital intensive Third Sugar Mill Project which is not under the control of the Ministry of Agriculture and Cooperatives. Among other increases General Administration was almost quadrupled, but this to a large extent reflects the completion of the Lozitha State House. The underlying general structure of capital spending remains otherwise relatively stable from 1977/78 to 1978/79. Looking to the budgets for the years 1979/80 and 1980/81, however, large increases in capital spending on Education are foreseen.

5.5 Monetary Policy

Until 1974 Swaziland used the South African Rand as its national currency after which time the Monetary Authority of Swaziland - now the Central Bank of Swaziland (CBS) - was created and issued a national currency, the Lilangeni (Plural Emalangeni). However Swaziland continues to be a member of the Rand Monetary Area with its rate of exchange fixed to the Rand, which has the status of legal tender; and a special Rand Deposit is maintained by CBS with the South African Reserve Bank in accordance with the bilateral currency agreement between the two countries. The deposit, plus CBS's holdings of Rand notes and coin shall be equal to at least 90% of the Lilangeni notes and coin issued by the CBS. The remaining 10% must be covered by marketable securities of the South African Government. Furthermore, although Rand has the status of legal tender the amount in circulation is unknown. Consequently, CBS has no discretionary control over the country's money supply, which mainly fluctuates according to the activity within the Monetary Area as a whole. It can also be mentioned that the domestic banking system depends heavily on foreign banks (Bank of Credit and Commerce International, Barclays Bank and Standard Bank) over which the Government has limited control, and larger enterprises have no difficulty in using the banks in South Africa directly.

Interest rate developments in Swaziland are clearly dominated by those in South Africa and are mainly aimed at checking disruptive movements of credits and deposits between the two countries. It can be noted, that the banking system in Swaziland retains a high degree of liquidity and also that towards the end of 1978 a change in the relationship between official interest rates in the two countries took place reflecting increased interest rate sensitivities. Official deposit rates in Swaziland ceased to be kept below those in South Africa and were set either at the level applied in South Africa or at an even higher level. This seemed to have become necessary to discourage Swazi depositors from seeking higher returns in banks across the border. With the borrowing cost advantages previously enjoyed by Swazi banks eliminated, lending rates had to be adjusted accordingly, and since the beginning of 1979 the prime lending rate in Swaziland has been most of the time the same as the one in South Africa. At the end of 1979 this rate in both countries was 9.5%.

The private sector's demand for bank credit originates primarily in Manufacturing, Agriculture and Forestry, Distribution, and Personal Loans. Until March 1978 Agriculture and Forestry was shown to account for the largest share of bank credit, because lending for timber processing was recorded under this category. However, such lending was reclassified to be included in credit to Manufacturing, whose share in total credit to the private sector at the end of 1979 amounted to 38%. The shares of Agriculture and Forestry, Distribution, and Personal Loans were 18, 11 and 9% respectively.

It must be pointed out that the banking sector meets mainly the needs of the modern sector. Credit institutions geared to meeting the requirements of the traditional sector and the small scale entrepreneur still leave much to be desired as do savings institutions in the rural sector which could be mobilising local savings for productive investment.

5.6 Prices, Wages and Employment

Price movements in Swaziland are highly sensitive to price changes in South Africa. This is so not only because Swaziland is a member of the South African Customs Union and the Rand Monetary Area, but also because 93% of the country's imports originate in or pass through South Africa.

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However, seasonal factors can still cause significant differences between the two Swazi price indices and South African price indices.

The cost of living of the middle to high income group is measured by Retail Price Index A, which from 1977 to 1979 indicated an average annual rate of inflation of 10%. During 1977/78 the rate of inflation was approximately 8%, but has since increased to more than 15% in 1979/80. The price Index B, which measures the cost of living for the low income group indicated an average annual rate of inflation of 13% from 1977 to 1979. The Index accelerated sharply in 1977/78 to an annual rate of 15.5% followed by a more moderate increase of 10.3% in 1978/79. However inflation for the low income group has gained momentum and was over 17% from April 1979 to April 1980.

The only legal provisions relating to wages have to do with minimum wages; these are fixed in an ad hoc manner on an industry-by-industry basis by 12 tripartite industry-wide Councils composed of representatives of management labour and the public. All council members are however nominated by the Government. There are no labour unions and the Councils have not been very effective in dealing with labour disputes, and the proposed Industrial Courts are yet to be established. Wages for Government employees are fixed in accordance with the recommendations of a biennial salary review commission and remain fixed between these reviews.

Information on average wages is only available up to 1978. However, indications are that real wages for minimum wage earners have risen in recent years, as have wages of various categories of workers who enjoy above minimum wage rates. However, it must be mentioned that in general wages in Swaziland are low even when compared to other African countries. Minimum wages range in amount from E20 to E56 per month, but it can be noted that large groups receive only the lower figure. For instance, a General Labourer in Agricultural Industries earn a mere 86 cents per day.

Following increases of 3.3 and 2.8% in total domestic wage employment in 1975 and 1976 and stagnation in 1977, an increase of 7.6% was recorded in 1978. However, this increase was due to construction work on a number of major projects which has now been completed. Taking the retrenchment of the number of Swazis working in South African mines into account it has been estimated that total wage employment (i.e. including Swazi mine wage employment in South Africa) actually fell by some 3,000 people in 1979 as indicated in Table 4, below.

Table 4: Total Wage Employment

Year	Total Domestic Wage Employment	Mine Labour in South Africa	Total ^{1/}
1974	62,061	9,574	71,635
1975	64,405	17,004	81,409
1976	66,215	20,743	86,958
1977	66,225	15,491	81,716
1978	71,256	14,284	85,540
1979	71,798 ^{2/}	10,984 ^{2/}	82,782

Note:

^{1/} Excluding Swazi workers in South Africa outside the Mining Sector

^{2/} IMF-estimates.

Source: Central Statistical Office, "Employment and Wages" (1978).

The problem of unemployment and underemployment has not so far assumed as serious proportions as in some other African countries. However, this has been so mainly because Swaziland's labour force has had the option of taking up jobs in South Africa. The disappearance of this opportunity underlines that the trend of total wage employment is most serious considering the high rate of population growth with about 7,000 being added to the total labour force a year.

Another aspect of the employment problem is the high level of unemployment among those with some education, at present particularly primary and secondary school leavers. The emerging situation calls for a reconsideration and adjustment of education and training policies to avoid excessive unemployment among educated people and the resulting social problems.

As regards the structure of total domestic wage employment, Agriculture and Forestry are by far the largest source of employment. If processing of agricultural and forestry products is included the entire sector absorbs approximately half of all paid employment in Swaziland. The second most important source of employment is Social Service (including Government). Details are given in Table 5, below.

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Table 5: Employment by Industry Group (Private & Public)

SECTOR	JUNE 1977		SEPTEMBER 1971	
	Number	% of total	Number	% of total
Agriculture & Forestry	27,152	38.1	20,840	44.3
Mining and Quarrying	2,607	3.7	2,926	6.2
Manufacturing	8,743	12.3	5,837	12.4
Electricity and Water	1,208	1.7	518	1.1
Construction	7,909	11.1	2,537	5.4
Distribution	5,589	7.8	3,842	8.2
Transport, Storage, etc.	2,934	4.1	2,050	4.4
Finance etc.	1,456	2.1	427	0.9
Social Service (inc. Gvt.)	13,658	19.2	8,074	17.2

Source: Government of Swaziland, "Wages and Employment" (1971 - 1978).

Table 5 also shows that all industries except Mining and Quarrying have increased their employment since 1971. Relatively, Agriculture and Forestry and Mining and Quarrying have decreased their shares, whereas Social Service accounts for the major increase.

5.7 Income Distribution

Although Swaziland has a per capita GDP which is one of the highest among African countries, a large proportion of the population still lacks the basic necessities of life.

Data are very scarce, but it is clear that the country suffers from wide income differentials which, to a large extent, are due to the shortage of qualified Swazi manpower and the fact that the major part of capital investment is owned by non-Swazis. The high percentage of expatriates running much of the individual and commercial enterprise gives rise to a large outflow of resources.

As regards capital income, Table 6 clearly shows the importance of companies owned by non-residents. These companies in 1973, accounted for an operating surplus of E20 million amounting to 68% of the total operating surplus of private companies. The external remittances of foreign owned companies amounted to E22.1 million of which 65% was interest, dividends, rent, gifts and capital transfers, while 35% consisted of payments for travel, cost of head offices outside Swaziland and other services. This last category may well contain disguised capital transfers.

Table 6: Distribution of Capital and Labour Income between Expatriates and Nationals (in millions of E)

	Total Salaries and Wages outside Agriculture 1974		Operating Surplus ^{1/}
Swazi Nationals	27.8	Capital owned by residents in Swaziland	9.2
Expatriates	11.4	Capital owned by non-residents	20.0

Note: 1/ The operating surplus includes neither the surplus of the traditional rural sector nor the operating surplus of public administration.

Source: R.J. Szal and R. van der Hoeven, "Inequality and Basic Needs in Swaziland" (1976).

Table 6 also indicates the important gap existing between wages received by expatriates and Swazi nationals. It has been estimated that expatriates, who form but 5% of the labour force, receive 24% of the total wage bill.

As regards income distribution within Swaziland an ILO Mission came up with the estimates given in Table 7, which are the only ones available.

Table 7: Per Capita Personal Income of Swazis (Resident)
in Urban and Rural Areas, 1974

	SWAZIS			NON-SWAZIS	TOTAL
	RURAL AREAS		URBAN AREAS (including Company Towns		
	Freehold Farms	Swazi Nation			
Population	98,625	305,825	73,800	11,100	489,350
Per cent	(20%)	(62%)	(15%)	(2.5%)	(100%)
Labour ^{2/} Income	13,643		31,760	14,183	
Operating ^{2/} Surplus		16,100	5,606 ^{1/}	5,600	
Total ^{2/} Income	13,643	16,100	37,360	19,783	87,126
Per cent	(16%)	(18%)	(43%)	(23%)	(100%)
Per capita Income (E)	139	53	506	1,782	178

Note: 1/ The operating surplus of companies etc. which are owned by Residents in Swaziland was estimated to be E11.2 million in 1974. It was assumed that 50% of this accrues to Swazi Nationals and 50% to expatriates

2/ In thousands of Emalangeni.

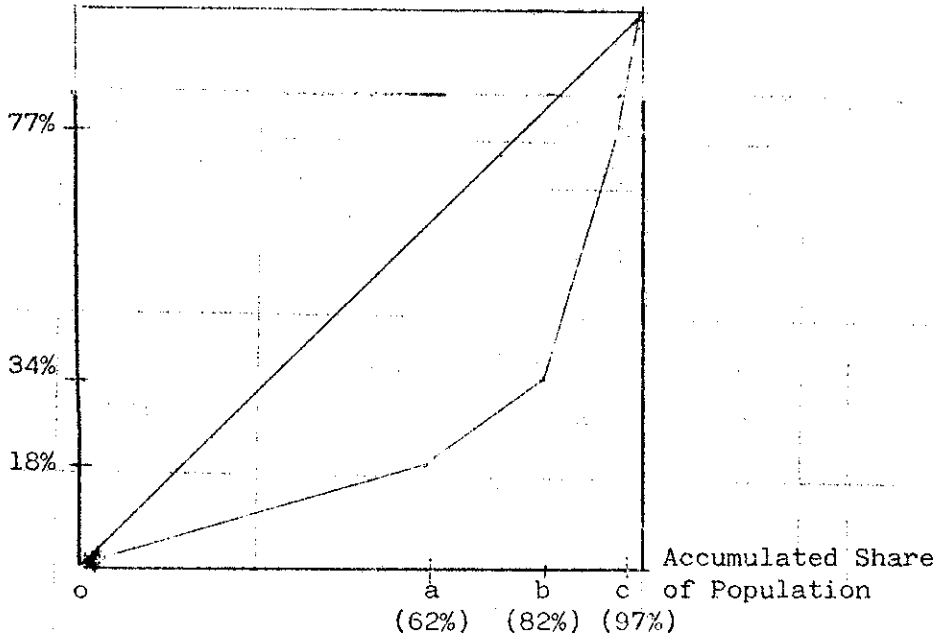
Source: International Labour Organization, "Reducing Dependence - A Strategy for Production and Development" (1976).

The estimates in Table 7 are based upon employment and earnings statistics, national accounts as well as population statistics. The picture that emerges is clear -- in the rural areas the average Swazi living on a freehold farm received an income two and a half times as high as that received by residents on Swazi Nation Land (SNL), whereas the average income of an urban Swazi was ten times as high as that received on SNL. The inequality of income is demonstrated in Figure 2 below.

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Figure 2: Income Inequality in Urban and Rural Areas

Accumulated Share of Income



Note: oa = 62% of population (people on SNL)
ab = 20% of population (people on Freehold Farms)
bc = 15% of population (people in Urban Areas)
cd = 3% of population (non-Swazis)

Source: Data indicated in Table 7.

It must be strongly emphasized that these estimates do not take into account the considerable transfers of income which in the case of Swaziland are probably of greater importance than in most other countries. It is, for example, estimated that 80% of rural households have at least one wage earning member.

However, the indicated inequality may well be taken as an explanation of the rural urban migration already mentioned, but to what extent is difficult to say given the absence of information about motivations and characteristics of the migrant.

Income inequality within traditional rural areas is very difficult to estimate due to extremely scanty, inadequate and unreliable data. The same is to some degree true for income inequality within urban areas, but on the basis of the rather sketchy information available, the ILO-Mission indicated that it is not as sharp as is found among other groups or sectors in some African cities like Nairobi and Lusaka.

5.8 Education and Health

The Swaziland Government is well on the way to the achievement of its stated goal of universal primary education by 1985, though expanded pre-service and in-service courses for teacher training and increased school constructions are required. The educational experience itself, however, will have to be made more relevant to the Swaziland context. Agricultural and home economics programmes have already been introduced, and a Primary Curriculum Unit has been established.

The Government has decided on a policy of providing ten years of basic education to all. This means that Junior Secondary School would have to become universal but terminal for most pupils and that steps will have to be taken to ensure eventually an adequate number of places for primary school leavers. In this regard, curriculum reform becomes even more critical, and a Secondary Curriculum Unit is developing intensified programmes in agriculture, science, development studies, home economics and elementary technology.

During the last decade there has been a large increase in school enrolment. From 1973 to 1980, primary and secondary school enrolment increased by approximately 35 and 86% respectively. In 1979 the ratio of total primary education (6-12) was 96%, with between one-fifth and a quarter of the students being over-age. The ratio of lower secondary enrolment to the population as projected in the 1976 census in the standard age-range (13-15) was 21% in 1979; the corresponding figure for upper secondary being 18%.

Total number of qualified and unqualified primary and secondary school teachers increased by 43% and 111% respectively over the period from 1973 to 1979; the number of schools increasing by 10 and 27% for the two groups over the same period. It can be noted that the pupil/teacher ratio in primary schools fell from 39 to 35 from 1967 to 1979 for all teachers whereas the ratio increased from 16 to 19 in secondary schools over the same period. However, it should be noted that the latter ratio is 43.4 if only qualified teachers are included.

Teacher training is provided at William Pitcher Teachers' College, which offers a conventional two-year training programme for students having a Junior Certificate, and training of similar duration for students entering with 'O' Level to achieve a Secondary Teaching Certificate. Output is projected at 57 for primary and 58 for secondary schools for 1979, rising to respectively 60 and an average of 80 from 1981. Nazarene Teachers' College provides Primary Teacher Training with an output in 1979 at about 50 teachers. A new college is to be built in Nhlanguano and is planned to open in 1982.

In-service Teacher Training is undertaken at William Pitcher Campus, but also the Faculty of Education of the University College of Swaziland offers in-service programmes for qualified primary and secondary teachers. Finally, the Swaziland International Education Centre (SIEC) provides in-service training and the Ministry of Education organizes workshops during vacation periods and weekends.

Swaziland College of Technology (SCOT) combines the functions of a craft institute and a college of technology. Its operation has considerable significance for the overall development of technical and vocational education in the country. Total enrolment in 1978 was approximately 100 students.

The University College of Swaziland with two local campuses - Kwaluseni and Luyengo - is the only institution of higher learning in the Kingdom. It is a constituent college of the University of Botswana and Swaziland. Kwaluseni Campus concentrates on liberal arts; but presently, years three and four of science, economics and social studies are taken in Botswana. Years three and four of law are taken at the University of Edinburgh, after which the fifth and final year is taken in Swaziland. Luyengo Campus concentrates on agriculture and will be further discussed in Chapter III, Section 6.

It is planned that by 1985/86 the College would be developed into a full four-year university at which time all courses, except law, would be taken in Swaziland. Undergraduate enrolment increased from 287 in 1975/76 to 468 in 1978/79; diploma enrolment increasing from 14 to 101 over the same period.

A non-formal education programme is operated by SIEC and the Division of Extra-Mural Services (DEMS) of the University College for persons beyond primary and secondary school age and employed. Enrolment at SIEC increased from 71 in 1973 to 1492 in 1978. Since 1974 DEMS has expanded and in 1977 898 students enrolled in five areas of study.

Adult education programmes have yet to benefit a majority of rural Swazis. Sebenta National Institute seeks to eradicate illiteracy through a network of community based programmes. Since 1972 approximately 19,000 adults (of an estimated 100,000 to 150,000 adult illiterates) have successfully achieved basic literacy through Sebenta courses in rural and urban areas. Ten Rural Education Centres have been opened to provide a community centre for extension courses in community development, agriculture, cooperatives, health, home economics etc. However, this programme is still in an incipient stage.

The general standard of health care available in Swaziland's rural areas is low, and medical facilities servicing the widely scattered and often isolated homesteads are seriously deficient. Estimates of the death rate (18 per thousand), the life expectancy (46.5 years) and a very high infant mortality of 156 per thousand live births indicate the magnitude of the problem.

Generally it can be said that Swaziland, though not suffering from many of the major tropical diseases shows a pattern of diseases common to developing countries. Thus the major causes of ill-health - gastroenteritis, communicable diseases (and in particular TB, and measles), respiratory diseases, complications of pregnancy, and nutritional deficiencies, can all be related to low incomes, inadequate housing, lack of safe water and lack of knowledge about health. In addition to the above, it may be mentioned that f.i. alcoholism and sexually transmitted diseases are now becoming recognized as major health hazards.

Health services in Swaziland are provided by a variety of individuals and organizations, which can be characterised into five groups:

- Government
- Non profit making voluntary organizations
- Industry
- Private allopathic practitioners
- Traditional health services.

Within Swaziland the majority of health services excluding traditional practice are provided by the first two groups, and it should be noted that whilst it is believed that traditional health services play a major role in the health care system, little formal information exists on their activities.

Prior to Independence, clinics were operated only by the Swazi Nation and the Nazarene church; but the Ministry of Health is now providing rural health services in the form of clinics visited on a regular basis by specialized programme staff. Government health services also include hospitals, public health centres, a rural health centre, a health education unit, a bilharzia unit, a malaria unit, a TB centre, a blood bank, a health inspectorate, a school health programme and a central public health laboratory. Mission health services include hospitals and clinics.

Family planning advice and materials are provided through United Nations Fund for Population Activities (UNFPA) supported Mother and Child Care and Family Planning services. Nutrition education is part of the home economics programme of the Ministry of Agriculture and Cooperatives and forms part of a UN-supported Women in Development Programme.

Major constraints to improving health care are lack of trained staff, need for new facilities, and the high cost of recurrent expenditures involved; but it can also be mentioned that an important legacy of British rule in Swaziland is the urban, curative bias in health services, as well as an artificial separation of the curative and preventive sectors. However, the Ministry of Health recognizes this problem and is presently trying to integrate the services.

Besides education and health care, rural social services are limited. It can be mentioned that community development funds administered by District Commissioners assist local chiefs and communities in locally initiated projects.

6. National Development Plans and Future Development Prospects

National development planning is mainly project-oriented on a Sector (or ministry by ministry) basis, and to a large extent lacks perspective and consequently, internal consistency and compatibility.

The major development objectives of Government as stated in the "Third National Development Plan (1978/79 - 1982/83)" are as follows:

1. Economic Growth,
2. Self-Reliance, and
3. Social Justice and Stability.

The plan does not set priorities with respect to these objectives, rather, it suggests that they are inseparable and that progress towards one automatically leads towards the realization of the others. At the same time, however, the Plan recognizes that the equitable distribution of the fruits of development may not result without conscious efforts to that effect.

In general, the Plan indicates that the Government will employ the following strategies in pursuing these objectives.

1. Economic Growth: resources will be directed in the agricultural sector towards the continued expansion of modern sector estate production and the commercialization of traditional agriculture through the Rural Development Areas Programme (RDAP). In the industrial sector, further development and expansion of manufacturing and processing industries will continue to be emphasized. GDP over the plan period is targeted to increase 7% annually.
2. Self-Reliance: this concept will be expanded by securing greater control of productive resources for the Swazi people; strengthening the Government's administrative capacity; developing local sources of goods and diversifying external economic relations.
3. Social Justice and Stability: will be promoted by spreading economic opportunities and social services more widely; involving rural people more closely in decision-making on matters affecting their well-being and adapting traditional institutions so as to enable people to become more aware of the benefits of available services and productive technologies.

The Plan indicates that about two thirds of total capital expenditure is to be devoted to economic infrastructure, particularly Transport and Communications (21%), Industry and Mining (20%) and Agriculture (18%). Social Infrastructure, mainly Education, is to absorb 23% of investment resources, and General Administration and Defense the remaining 13%. The most important individual projects included are the new sugar mill, the building of a Southern rail link and the development of a new coal mine.

The development objectives mentioned above reflect basic characteristics of the Swazi economy: duality, dependence and inequality. However, the future development prospects for Swaziland are mixed. It has a very good resource base, but at the same time it faces major constraints, and development so far in the Plan period has revealed substantial problems.

As regards major constraints, the over-riding economic dependence upon South Africa is a major cause for the dualistic structure of Swaziland. It gives rise to numerous development constraints such as those resulting from the country's dependence for transport, tax revenues, essential commodities and services, investment capital, and technical and managerial expertise. To diminish this dependence, as already mentioned, is a declared development objective, but its fulfilment does require a determined and internally consistent development plan together with corresponding policy.

It has also been argued that future development may to some extent be constrained by the small size of the domestic market. However, it is not satisfactory just to state that Swaziland depends on buoyant external markets, since the small internal market may be directly related with the dual structure of the economy and the unequal growth pattern realized over the past years. It is, therefore, somewhat inconsistent that the programme of investments outlined in the "Third National Development Plan" emphasizes capital intensive industrial, estate agriculture, and transport investment more heavily than labour intensive programmes which would help alleviate the country's economic dualism. It is probable that the investment pattern - if not changed through the revised strategy mentioned below - will further widen the existing income gap and consequently jeopardize the objectives of social justice and stability and the longer run objectives of growth and self-reliance.

It can in this connection be noted that the aim of obtaining access to American and European external markets as well as the many tax concessions (i.e. holidays) and a guaranteed docile labour force tend to encourage "run-away" firms investing in Swaziland. How beneficial such investment may be to a long run and equitable development remains to be seen.

Another serious constraint to development is the extremely high population growth rate. Without more effective family planning efforts the need for more education and health facilities will increase drastically implying a considerable strain on scarce resources. In addition, the number of unemployed will continue to rise in the urban areas while at the same time the present land tenure system will eventually reach the limit to which viable production units can be further subdivided. Thus, rural living standards will suffer as more marginal land is brought into production, and increasing population densities will contribute to the deterioration of the productivity of the land as well as that of the national herd. As regards water resources there is overwhelming information which indicates serious short-term water deficiencies because of the rapidly growing need for electricity and agricultural production to accommodate the rising population. In addition, future water resource development plans in South Africa indicate a significant reduction in border flows. Corrective measures therefore needs to be undertaken as a matter of priority, and the development of a water resource plan (with assistance from USAID) is only a first step.

The shortage of mid-level and highly skilled technical, managerial, and administrative personnel is one of Swaziland's most serious bottlenecks to development. Expatriates are still strongly relied upon in both the private and public sectors. Another major problem in relation to the strengthening of Governmental institutions and absorptive capacity is the poor personnel management and low salary level of civil servants as compared to their counterparts in the private sector. Although major salary increases have been enacted, it does not appear that Government salaries are yet competitive enough to attract and maintain a well qualified staff. The importance of these factors is evidenced by the fact that the control of planned development programmes is also weak. Better procedures are required to ensure that development activities are implemented as planned.

Directly related to the above constraint is the appropriateness of the country's education curriculum. As Government well recognizes, it is ill-suited to the needs of Swaziland's developing society. This core-problem must be overcome if more efficient and effective participation of Swazis in the development process is to be expected.

There is a lack of supporting physical and institutional infrastructure for major programmes including those having to do with investment and export promotion and those catering to basic human needs, thus blocking the achievement of not only the nationally accepted objectives of growth and self-reliance but that of social justice as well.

As regards investment resources, they are not normally considered to be a constraint. Savings in recent years have been high and investments from South African sources as well as different multi- and bilateral sources are high. Furthermore, international reserves are buoyant (E125 million). However, as already mentioned, to the extent that investments are capital intensive and do not meet the requirements of the traditional sector and the small scale entrepreneur, there is an inconsistency between the development pattern and the objectives.

Due to a number of reasons (including inability to secure approval and commitment of sufficient donor funds, inflation, inadequate project preparation on the part of individual Ministries and Departments, lack of qualified staff and the diversion of funds to unforeseen purposes such as the Royal Swazi Airline) implementation of the Third National Development Plan is running behind schedule. It can be noted, that the stated objective of an annual 7% growth rate is far from being achieved and the short fall in new employment opportunities is very serious as 7,000 new entrants enter the labour force every year. In view of this and that Government revenue without corrective measures will stagnate over the coming years, a revised strategy intended to provide an initial response to the increasing unemployment and stagnating revenue is under preparation. The revision - if implemented - would involve a coordinated improvement of resources in the rural sector (the main emphasis being on water development) and greater linkages between the agricultural and industrial sectors in addition to the provision of more vocational and teacher training and a number of infrastructural, commercial and industrial projects. These projects would imply a significant increase of the overall capital expenditure, but it must be stated that the projects may well pose organizational problems not yet resolved. Furthermore, the projects are still in the planning stage and it remains to be seen whether traditional and modern authorities can approve them and the revised strategy as a whole.

II. AGRICULTURAL INFORMATION

1. Introduction

Agriculture is by far the most dominant feature of Swazi life and the largest economic activity. The agricultural sector, according to the latest estimates, generated about 20% of GDP in 1976/77, and contributes with more than 75% of national export earnings and provides employment to approximately 75% of the total indigenous workforce. However, the importance of the agricultural sector is even more important than these figures reveal since a large part of the manufacturing sector is based on the processing of agricultural products, i.e. agribusiness. The large industries in this area are engaged in sugar refining and woodpulp processing; other important processing industries are those in meat packing, cotton ginning and fruit processing and canning.

The sector is sharply dualistic with a modern capital intensive, largely foreign owned and managed sub-sector producing mainly for export, on the one hand, and a traditional sub-sector producing mainly for domestic consumption on the other.

In 1975/76 the modern sub-sector consisted of 358 farms and estates (designated Individual Tenure Farms or ITF's) averaging about 875 hectares. In general, these farms are highly mechanised and use modern technology and output per acre is relatively high and growing at an estimated 5% per year. Although only 605 of these farms were in use, their output accounts for the major part (60%) of total agricultural sector output.

The balance of the agriculture sector now consists of some 50,000 small scale Swazi Nation Farms (SNFs) or homesteads, with an average size of approximately 2 hectares of crop land in addition to the communal grazing land. About 70% of the population resides on Swazi Nation Land, and about one-half of the population is dependent on traditional agriculture for their livelihood. The SNF's are run largely on traditional lines, i.e., employing family labour and draft animals, and producing mainly for domestic consumption. The low productivity of SNF's and the lack of adequate marketing facilities have combined to hamper the production of a marketable surplus of food crops. Production on SNF's amounts to approximately 14% of GDP and has barely kept pace with the population increase.

The overall result of the existing and widening gap between the SNF's and ITF's (a gap in access to resources as well as sharing the benefits from growth) has resulted in wide income differentials.

2. Swazi Nation Land and Individual Tenure Farms:

Land Tenure and Land Use

Swazi Nation Land is owned communally by the Swazi people, but is vested in the King who holds it in trust for the nation. Any individual, whether a newcomer to a Chiefdom or an established inhabitant, may acquire rights over arable land in any one of four different ways:

1. By direct grant from the Chief (Acting on behalf of the King and under guidance of the SNC).
2. By direct grant from an individual within the Chiefdom (who may grant the right to use land but not the right to settle).
3. By loan from an individual within the Chiefdom (in which case the land remains vested in the lender).
4. By inheritance (although in theory the individual or family must make a new request for the land).

Holdings are only allocated for farming plots and homesites whereas all other land is held communally and may be used equally by all members of the community. An individual is not confined to any particular area and may, theoretically use grazing land anywhere in the country. In practice, however, the individual restricts his activities to areas accessible to the homestead. After harvest, ploughed land with standing crop residues reverts back to communal use and the community stock grazes without hindrance. This has in the past impeded fencing of arable land except around the homestead itself.

Within the homestead group, the family head has the authority to reallocate his area of arable land to various recognized "houses". A house may consist of a wife and children in a polygamous homestead, a married son or brother or various other kin groupings. Land allocated to the various houses is retained and after death of the homestead head each house will tend to establish a homestead of its own. This process leads to continued fragmentation of arable land -- a problem which is likely to become worse in the future because of the serious population growth and the limited arable land available. The majority (approximately two thirds)

of individual holdings range from 1 to 5 ha, while only about 10% are of 5 ha or greater. Holdings tend to be larger in the lowveld where the population pressure and rainfall are low, and smaller in the Highveld.

Swaziland's dual system of Government heavily affects development of Swazi Nation Land. While the modern Government has primary responsibility for designing and selecting development projects, the Swazi National Council (SNC), through the Central Rural Development Board (CRDB), must finally decide which projects are to be approved. Thus, all projects and proposals must go through two different approval mechanisms prior to implementation. Problems arising are further compounded since the decision makers of the SNC require more time and employ different criteria than the modern Government in making decisions. Thus, there generally is a long time lag between the initiation and the implementation of development projects. This duality of approvals also means that replication of successful projects is not necessarily automatic since each project is judged by the SNC on its own merits. It is significant that the system is democratic in the sense that, in theory at least, each interested Swazi voice is heard prior to decision. In practice, however, the most important voices are those of the aristocracy.

The Swazi Nation Land which occupied 998.5 thousand ha, in 1976/77 is mainly communal grazing land (83%). Cropland occupied 97 thousand ha, or less than 10%. The balance consists of other land including purchase land for Rural Development areas and other SNL resettlement schemes.

The historical background for the existence of the ITF's, subject to modern land law and with full European-style freehold title rights and ownership predominately non-Swazi, is the policy of concession granting followed by King Mbandzeni (1874-1989). This policy was followed due to the expanding Boer farmers from the Transvaal and British land-speculators from Natal. A statement by King Mbandzeni is enlightening: "I have white men all around me. By force they have taken the countries of all my neighbours. If I do not give them rights here, they will take them." Despite the fact that under Swazi law all land belongs in perpetuity to the Nation and only its use can be temporarily assigned and that Mbandzeni had inserted a saving clause protecting his people's rights in the concessions, the British, after assuming power in 1903, decided to partition the land between the Swazi and the concessionaires with two-thirds going to the latter with effect from 1907. Ever since, this issue has dominated Swazi political life, and the Swazi Nation has followed a policy of buying

back title deed land. This effort has been supported by a grant from the British Government (beginning in 1969) to be used to purchase back heretofore alienated lands. The percentage of Swazi Nation Land has slowly but steadily increased to its present level of 63%.

Consequently, the percentage of title deed land has fallen over the years since Independence and in 1976/77 accounted for about 42% (728,585 ha) and is now only about 37%. This area is scattered throughout the country and includes about 55,692 ha of crop land, 97,009 of commercial forests, and about 410,541 of pasture land. The balance is mining concessions, unusable land, a number of publicly owned farms etc. Crop land is divided among some 394 farms, averaging 149 ha each, and a recent estimate indicates that estates and farms owned by expatriates and Swazi owned TDL accounted for 202,865, 315,268 and 92,483 ha, respectively.

An estimated 30% of freehold land is considered underutilized and could be readily used by Swazi farmers. Some of this land is being purchased (under the grant from the United Kingdom) to be used for grazing and other purposes in selected development areas. The SNC has recently stated that all freehold title land sales are now subject to its approval.

An overview of the land-use pattern is given in Table 8, below; which shows that about 72% of total land area is used for grazing of which 16% is fallow. Commercial forest take up 6% of the total area and about 14% is classified as "other land" which includes "other farm lands", farm buildings, services etc.

Table 8: Land-Use 1976/77

thousand hectares

Land-Use Category	Whole Country ¹	Per cent	Swazi Nation Land	Per cent	Individual Tenure Farms ²	Per cent
Cropland of which:	153.0	8.9	97.3	9.7	55.7	7.6
Crops	127.8		77.1		50.7	
Fallow	25.2		20.2		5.0	
Grazing Land	1,239.7	71.8	829.1 ³	83.1	410.5	56.3
of which:						
Natural veld	1,114.8		829.1		312.7	
Improved	97.8		-		97.8	
Commercial forests	97.0	5.6	-	-	97.0	13.3
of which:						
Pines	70.4				70.4	
Others	26.6				26.6	
Other Farm Land ⁴	37.4	2.2	5.1	0.5	32.4	4.5
All other land	200.0	11.5	67.0 ⁵	6.7	133.0 ⁶	18.3
Total Land	1,727.1	100	998.5	100	728.6	100

- Note: 1. Excludes urban areas of approximately 9,300 hectares.
 2. Including Sihoya Swazi Nation Land Sugar Project.
 3. Includes all unallocated communal grazing land and mountains and hills on Swazi Nation Land.
 4. Includes areas of farms buildings and services.
 5. Includes Purchase - land for RDA's and other SNL resettlement schemes
 6. Land unused or used only for traditional Swazi agriculture.

Source: Government of Swaziland, "Annual Statistical Bulletin" (1978).

The physical characteristics of the land can be summarised as follows:

	<u>Percent</u>
Arable land 0-12 percent slope	22
Poor arable-good grazing	20
Wet land and rivers	3
Grazing land	26
Steep and rocky	29
	<hr/>
	100
	<hr/> <hr/>

A comparison with the actual land use pattern clearly indicates that there are areas underutilized which could be used as cropland or improved grazing land. In the case of title deed land it is estimated that as much as 30% is underutilized.

3. Crop Production

Maize, cotton and sugar cane account for the majority of agricultural land use in Swaziland. However, a wide variety of other crops are grown. Generally, maize, beans, groundnuts, sorghum, cotton and tobacco, in addition to some vegetables in RDA's and irrigation schemes, are grown on Swazi Nation Land. Sugar cane, citrus, cotton, pineapple, and miscellaneous fruits and vegetables are grown on land owned by ITF's. Table 9, below, indicates sowing and harvesting periods for various crops.

Table 9: Crop Calender

Crop	Sowing Period	Harvesting Period
(1) Beans: Rain-grown	(1) After the first spring rains (Highveld)	2-3 months after sowing
	(2) January-February	May-June
Irrigated	Throughout the winter, best in March.	September-October
(2) Cotton	Usually early in October	March-June
(3) Groundnuts	October-November	February-April
(4) Maize	September-November	March-May
(5) Potatoes: Highveld	September-December	December-February
Middleveld	February-March	May-June
and Lowveld		
(6) Rice	December-January	July-August
(7) Sorghum	September-October	April-June
(8) Sweet Potatoes	(1) March	May-June
	(2) September-November	January-March
(9) Wheat	May	October
(10) Sugarcane	March-May	First harvest July-August (15-18 months after planting) Thereafter May-January
(11) Tobacco	October	January-March
(12) Pineapples	March and September	Mid-January to Mid-April (15-18 months after planting)
(13) Citrus Crops	April-June	May-August

Source: Government of Swaziland "Statistical Year Book 1978".

3.1 Maize

Maize is the staple crop of the Swazi people and is grown on a high proportion of all agricultural land, particularly Swazi Nation Land. Total maize acreage was 67.3 thousand ha in 1975/76 with 60,000 ha on SNL and 7,526 on TDL. In 1976/77 maize acreage on SNL dropped to some 54,000 ha, and no data are available for TDL. In general, there appears to have been a reduction in the acreage since the early seventies. Most maize is grown in the Middleveld region which has the highest proportion of SNF's, whereas the Lowveld is of the least importance with a very low proportion of SNF's.

Exact production figures are not available since most locally grown maize is consumed on the farm and therefore never enters commercial marketing channels. It is estimated, however, that production in 1977/78 was approximately 96,000 tonnes. Due to the drought in 1978/79 it is believed that the harvest in that year was only 50% of the average over recent years. Some areas especially in the Lowveld were so severely hit by drought that the entire crop was destroyed. In 1979/80 it is estimated that the crop is back at the 1977/78 level.

Maize yields vary considerably from year to year depending on climatic conditions and the area in which it is grown. Average yields over recent years vary between 0.8 and 2.9 tonnes per ha with an overall average in Swaziland from 1968/69 to 1976/77 of 1.3 tonnes per ha.

In spite of Government's declared objective of attaining self-sufficiency in maize, imports from South Africa have risen drastically over the past decade. From a level of 15 - 20,000 tonnes in the early 1970's, imports increased to some 35,000 tonnes in 1977 and to a record 50,000 tonnes in 1978. Whilst the increase in 1977/78 is partly due to crop failure it appears that the increased demand resulting from the growth of the Mbabane - Manzini urban complex contributes heavily to increased imports. In addition, despite wide adoption of hybrid maize it now appears that some 20 - 30% of the homesteads buy maize or mealie meal regularly. These two points are reinforced by the estimated import in 1979 of approximately 45,000 tonnes.

Most locally grown maize is consumed by farmers and their families with some being traded locally in the non-commercial market. There is one main commercial mill owned by the Swaziland Milling Company (in which Government has 50% of the equity); this company remains the primary commercial outlet for maize grown in Swaziland, although its 15 year monopoly ended in 1976.

Estimates of total per capita consumption are fraught with difficulties. It should be 230 kgs per capita per annum if total production plus imports are divided by the de facto population. However, nutritionists and field officers have estimated that the correct figure is probably 180 kgs per capita per annum, the difference being caused by post-harvest losses. It would seem that imports of other cereals has increased at a faster rate than those of maize, indicating a substitution of the traditional staple food maize with, for instance, wheat in the form of bread flour.

3.2 Beans

Approximately 3,700 hectares of beans, including juko-beans, mug beans and sugar beans were grown in 1978/79, largely on Swazi Nation Land with an important part intercropped with maize. Production was nearly 2,500 tonnes. Only small quantities are marketed commercially, but the crop is nutritionally very important.

3.3 Groundnuts

An estimated 2,700 hectares of groundnuts were grown in 1978/79. Groundnuts grow best in the moist middleveld to lowveld. Traditional farming practices result in low yields and total production was only 1,550 tonnes. Given the low margin for this crop, it probably has limited potential for expansion.

3.4 Sorghum

Approximately 2,300 hectares are under sorghum in Swaziland. The crop is mainly grown in the lowveld where it is useful because of its drought resistance. The bulk of the production (1,650 tonnes) is used for homebrewed beer. About 100 tonnes a year are sold to the Swaziland Milling Company, which imports another 4,500 tonnes per year for distribution to local retailers.

3.5 Cotton

Cotton is a profitable cash crop for farmers both on SNL and TDL. It is grown mainly as a dry-land crop with few areas under irrigation in the middleveld and lowveld regions. SNF participation has been increasing rapidly. About 4,000 SNL farmers grow cotton and it is estimated that 59% of the total crop, as compared to only 13% in 1971, is grown by SNF's. The total area harvested in 1978/79 is approximately 18,000 hectares with a production approximating 16,000 tonnes of seed cotton, 6,000 tonnes below the 1977/78 level due to drought. Seed cotton production reached a peak in 1974/75 when 22,500 tonnes were marketed. It then fell, but has since been increasing except for 1978/79 and the Cotton Board established in 1968 aims at increasing production to 33,000 tonnes by 1985. About half of the cotton is sold to a local ginnery in Matsapha with the remainder going to two ginneries in South Africa. A new ginnery and seed crushing/oil factory to be situated at Big Bend and a cotton spinning mill are projects for expanding the cotton industry which are presently under construction.

3.6 Tobacco

Production of tobacco is increasing rapidly on Swazi Nation Land, rising from about 40% of total production in the 1960's to some 90% in 1976 when about 1,800 Swazi farms were producing tobacco. Total national production in 1975/76, was 470 tonnes with a total crop area of 813 hectares. The potential for increasing tobacco production is excellent as soils and climate are excellent and will provide high yields provided proper care is taken and inputs provided. Unfortunately, the 1978/79 crop was largely destroyed because of the insufficient precipitation and severe hail storms; such problems were not encountered in 1979/80.

3.7 Sugar Cane

Sugar cane is by far the most important marketed crop grown in Swaziland in terms of value. With the exception of approximately 1,000 hectares grown by SNF's in Vuvulane, the sugar cane is grown on large estate type farms. The cane is grown under irrigation in the hotter and more humid Lowveld region and until recent harvesting and loading were done by hand. Now, it is wide-spread practice to use mechanical loaders and mechanical harvesting is being introduced thereby limiting the employment

effect. There are two sugar mills at Big Bend and Mhlume owned by Tibiyo and CDC and Tibiyo and Lonrho respectively. The Third Sugar Mill at Hlane West of Mhlume known as Simunye ("we are one") was opened on 27 August 1980. This huge project costing E145 million (US\$ 190 million) is being financed by loans and equity capital^{1/}. There are nine subscribers of the equity capital of E40.1 million with 60% owned by Tibiyo and the Government, and loan capital originate from 12 different sources including i.a. CDC, German Development Company, International Finance Company, International Development Corporation, European Investment Bank, Tibiyo and the Swaziland Government. The mill creating only 3,000 new jobs is expected to reach full production capacity of 126,000 tonnes in the 1982/83 season.

Furthermore, production capacity at the two old mills has also been expanded to 145,000 tonnes at Mhlume and over 140,000 tonnes at Big Bend. Thus, the overall productive capacity will be over 400,000 tonnes by 1982/83.

In Swaziland, cane is grown in accordance with quotas issued by the Swaziland Sugar Industry Board. About 45% of the quotas are held by non-Swazis, 6% are held by small holders, and the remainder is held by the Swazi Nation and Government through its estates and the milling companies.

Production reached a record level of 247,800 tonnes in 1978/79 compared with an average of about 200,00 tonnes in the mid-1970's. Output in 1979/80 however was affected by the drought and only 241,000 tonnes were produced. Total area under production was 21,000 hectares in 1978/79, but is expected to increase over the next years in line with the expansions mentioned above.

^{1/} It should be noted that this figure does not include a number of services and capital investments (i.a. roads) from a number of ministries (i.a. Ministry of Agriculture and Cooperatives and Ministry of Works, Power and Communications). An estimate of these additional costs is 60 million US\$ bringing total costs to US \$ 250 million.

The cane yield per hectare is very high by international standards and has averaged over 100 tonnes per hectare in recent years.

The importance of the sugar industry in the economy was mentioned in Chapter I, Section 5, and marketing will be touched upon in Chapter III Section 4. There is, however, reason to point out that export marketing arrangements are linked to the provisions of the sugar protocol of the Lomé Convention and to the 1977 International Sugar Agreement. Swaziland is therefore becoming increasingly dependent upon the development of the world sugar markets and consequences of international negotiations whose outcome in the years to come may not be favourable to the country.

3.8 Vegetables

Horticultural crop production is mainly confined to the Middle and Low Veld regions where most good class arable land can be found and where the irrigation potential is the highest. Vegetable Production has mainly been undertaken and still is by ITF's. Production on SNL is a relatively new activity and has only expanded with the introduction of irrigation schemes under the Rural Development Area Programme. Although it is feasible to grow vegetable in most months of the year, because of limited land availability in the High Veld and high summer temperatures accompanied by wet and humid conditions in the Middle and Low Veld, vegetable production is mainly concentrated in the winter months and production is high between June and November.

In 1978 the vegetable area was estimated to have been 1,144 ha with 53% accounted for by ITF's, 19% by Vuvulana Irrigated Farms (VIF) and 28% by RDA and SNL irrigation schemes. Virtually 90% of the 1978 area is estimated to have been planted out to four crops - green mealies (29%), tomatoes (23%), potatoes (19%) and cabbages (18%).

Green mealies is the most important crop at VIF, accounting for 62% of the area. Since VIF is situated in the Low Veld, its crop is earlier than the Middle Veld crop, wherefore favourable prices can be secured in the local and export markets. Potatoes are the next most important crop. Tomatoes and green mealies are most important on RDA/SNL schemes followed by cabbage. ITF farmers concentrate on producing potatoes, tomatoes and cabbages and plant 70% of the total potato hectarage, 55% of the tomato hectarage and 64% of the cabbage hectarage but only 27% of the green mealies hectarage.

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Significant potential exists for further expansion, and a Marketing project for fresh vegetables and fruits has recently been formulated with FAO/ADB assistance (e.g. Chapter IV, Section 5.2.1).

3.9 Fruit

A wide range of tropical, subtropical and temperate fruit is grown in Swaziland, including pineapple, citrus, mango, avocado, banana, paw-paw, guava, litchi, pecan, apple, plum, peach, apricot and pear. However, comprehensive assessment of production levels is not possible except for those species grown by Title Deed farmers. Some information is available from Swazi Nation Land farmers but it should be remembered that many homesteads, urban as well as rural, have fruit trees of some kind, which are scattered and generally not found in orchards, but in individual trees or groups of trees. In addition much of the fruit grown by the Swazi Nation Land farmers does not enter the market but is used for domestic consumption.

Despite the variety of crops and the production on SNL, fruit production in Swaziland consists primarily of oranges, grapefruits, and pineapples, almost all of which is grown on ITFs.

The citrus crop, which is grown in irrigated Low Veld areas, cover approximately 2,500 hectares and production is around 65,000 tonnes per annum divided roughly equally between oranges and grapefruits. All growers with over 50 trees are supposed to register with the Swaziland Citrus Board, although production is concentrated on seven large estates. Out of the 65,000 tonnes 20-25% is sold locally principally for processing at the Libbys Canning Factory and subsequent export. The balance is exported as fresh fruit, i.a. to Europe where Swaziland has preferential access under the Lomé Convention. The crop contributes with some 10% of Swaziland's total export earnings.

Pineapple production in Swaziland is primarily geared towards supplying the Libbys Canning Factory at Malkerns (part of the Nestle group). Annual production has fluctuated between 17,000 and 20,000 tonnes per year with a total area of some 1,200 hectares. With the exception of the Pineapple Settlement Scheme of about 200 hectares in the Malkers area, producing 17% of Libby's requirements, most pineapples (80%) are grown by Libbys. The balance is grown by ITF's on contract.

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Pineapples are not difficult to grow (hail is one of the few risks). However, only two harvests are possible from each plant every five years (the main and ratoon crops) and small farmers find the resulting irregularity of income difficult to cope with, thus making the crop unsuitable for use on SNL.

Avocado production, largely for export, has gone down steadily since 1970. Although growing conditions in the high and middleveld are generally favourable, disease problems are a factor in the crop's decline. The production of bananas grown mainly in the middleveld in the Lomati Valley and around Kubuta, is also declining with the value of the crop falling sharply. Most of the crop is sold through the South African Banana Control Board with little local sales.

Mango production has recently increased; no doubt due to the introduction of fibreless varieties by Taiwanese farmers.

3.10 - Fertilizer Use

Detailed data on fertilizer use are not available after 1975/76. Therefore, estimates of fertilizer sales of the two main suppliers must be used in order to ascertain trends in fertilizer use. On this basis it can be concluded that Swaziland consumes some 30,000 tonnes of fertilizer, excluding lime, per year with ITF's accounting for 80% and SNF's for the remaining 20%. The figure of 30,000 tonnes represents an increase of only approximately 4,000 tonnes over the 1971/72 figure. However, if one looks at fertilizer sales in terms of nutrient elements (NPK) a significant increase becomes apparent. From 1971/72 to 1979/80 the sales of nutrient tonnes increased from 5,643 to 11,000 tonnes or by some 95%. As regards lime consumption it rose sharply from 1969/70 to 1971/72 but has since stayed relatively stable around 2,000 tonnes.

It is presently estimated that the different types of fertilizers are sold in the following percentages of total sales; nitrogenous fertilizers (35%) phosphate fertilizers (13%), potash fertilizers (5%), agricultural lime (7%) and mixtures (40%).

As in all countries fertilizer prices have risen sharply following the increase in petroleum prices after 1973, and costs of fertilizer are now a major cost confronting the small farmer. Price indices of 2:3:2 (22) Zn,

L.A.N. (28) and Urea were 163, 164 and 170 respectively in April 1980 with 1975 as base year. The Government does not exercise any price control on fertilizers although it did intervene to stop a price war between the two suppliers in 1978/79 in order to protect the viability of one of the suppliers. The Government does not subsidize the price of fertilizer of any kind by any user.

4. Livestock

Livestock plays a vital role in the Swaziland economy and is closely integrated within traditional agriculture. The total number of livestock from 1975-1979 is shown in Table 10, below:

Table 10: Number of Livestock, 1975/79

(In thousands)

	1975	1976	1977	1978	1979
Cattle	621.7	634.2	634.1	644.2	660.5
Goats	261.4	237.4	257.9	256.9	284.7
Sheep	34.6	30.8	31.0	29.7	29.8
Equines	17.2	15.9	15.1	15.5	16.2
Poultry	485.1	521.8	514.4	582.6	590.2
Pigs	18.1	18.5	20.5	16.3	19.8

Source: Ministry of Agriculture and Cooperatives.

About 513,000 heads of cattle were owned by about 28,000 Swazi farmers, and grazed on Swazi Nation Land pastures. The remaining 147,000, generally exotic or upgraded animals, are run on freehold title ranches, usually in the Lowveld. Cattle plays a vital role in the Swazi society. Traditionally, cattle ownership confers prestige in addition to being both a measure and a store of wealth. Cattle may be sold to meet ceremonial or special needs. The lobola (or brideprice) is an example of the former whereas school tuition is an example of the latter.

Work oxen commonly till fields and are used for transport; cattle provide meat, milk and dung for the family. Goats are also an important source of food and cash and are owned by 13,000 families.

Cattle husbandry techniques remain traditional, herding is minimal, and animals are kraaled at night and cows milked daily. Production coefficients are low and falling on SNL. It may be noted that in 1979 the composition of the cattle herd was as follows: 0 - 3 years (43.7%), bulls (3.4%), cows (35.2%) and oxen (17.7%).

The off-take is low (approximately 8.5%) and has not shown any tendency to increase over recent years. Table 11 portrays the actual situation over the past five years.

Table 11: Number of cattle slaughters and Off take Rates 1975/79

	1975	1976	1977	1978	1979
Cattle slaughtered from national herd	60,202	54,100	52,898	60,438	56,940
Off-take in % of total cattle population	9.7	8.5	8.3	9.4	8.6

Note: Cattle slaughtered from national herd is calculated as number of cattle slaughtered in Swaziland plus export minus imports.

Source: Ministry of Agriculture and Cooperatives.

It can be pointed out that the national average hides the fact that the off-takes vary considerably from cattle on Independent Tenure and Swazi Nation Land.

The local Nguni breed is well adapted to local conditions, but productivity can be very substantially ^{increased} by upgrading with exotic breeds. Ranching on freehold title land has demonstrated the potential for a profitable livestock production.

In 1979 approximately 80,000 heads of cattle were slaughtered in Swaziland and only 24 were exported. Most of the slaughtering is done by local butchers for home consumption, but a growing number of cattle are slaughtered by the Swaziland Meat Corporation (SMC) for export in processed forms. However, of the 29,954 cattle slaughtered by SMC in 1977 10,000 were imported. Total export earnings from meat and meat products rose from E4.5 million in 1976 to E7.5 million in 1979.

Dairy production (particularly milk) is as mentioned above an element of traditional crop husbandry, but production is insufficient to meet domestic needs. Commercial production is limited to a small number of ITF's and the local production amounts to less than 10% of total sales of 5.3 million litres in 1979. The balance is imported from South Africa..

However, the potential for dairy production is large and Government has a stated goal to achieve self-sufficiency in milk by 1986. Considerable Canadian assistance is being provided to this sector (c.f. Chapter IV, Section 5.1).

As regards poultry, pigs and goats recent years have seen some developments in the poultry industry, but mostly in the private sector although the Ministry of Agriculture and Cooperatives has a poultry extension service. Poultry production on SNL on a commercial scale is constrained by high input costs and lack of marketing facilities. Pigs are kept on a limited scale and only for domestic purposes. Goats provide meat and milk to many rural families, but commercially they are of an insignificant importance.

5. Fisheries

Although Swaziland has no natural lakes, the rivers do offer opportunities for fishing. However, traditionally fish has not been part of the diet. One interesting development is the building of 500 fish ponds; a programme started originally under UNDP-assistance and later continued with USAID financing. However, a number of factors (including poor yields and lack of support due to manpower constraints) have resulted in a drop in the number actually in operation. It is estimated that 260 are in operation, but the Ministry of Agriculture and Cooperatives is actively trying to increase the number. In addition, plans for the construction of larger community based fish ponds within the RDAP are in existence, and it is hoped that implementation can start within the coming year.

There are three hatcheries with one being used as a research facility and the other two as cold and warm water hatcheries, respectively.

Two commercially oriented trout farms run by ITF's have come into existence over last few years, and two riparian commercial fishing teams located in the Lowveld appear to be functioning very well.

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6. Forestry

There are over a hundred forest plantations covering approximately 120,000 ha. However, seven plantations (over 1,000 ha each) account for 84% of the man-made forest area; and the two largest plantations owned by Usutu Pulp Co. Ltd., and Peak Timber Sales Ltd., constitute 65% of the man-made forest area.

The Usutu Pulp Co., situated in the Highveld West of Mbabane, is jointly owned by Courtaulds and CDC. Most of the land is owned by the Company, but the Swazi Nation and the Government are minority shareholders. The plantations total almost 50,000 ha net; primarily pine (90%).

Peak Timbers, of which the Anglo-American Corporation of South Africa is the main shareholder, owns 30,000 ha of the pine plantations in the Northern part of the Highveld.

In addition, there are about 20,000 ha of other privately owned plantations, more than half of which are eucalyptus.

Altogether about 2 million m³ of wood are harvested annually from the plantations of Swaziland, therefore indicating it to^{be} one of the largest producers of industrial wood in Africa.

There is one pulp mill (owned by Usutu), and three company operated sawmills. Some smaller sawmills serve the local market including producing mining timber for export. The pulp mill at present has a capacity of 164,000 tonnes per year, and under normal market conditions its share of the world market for unbleached pulp is some 5-10%.

The solid-wood products industry (sawnwood, plywood, blockboard, etc.) relies on South Africa for roughly 85% to 90% of total sales. Woodpulp is exported to a wide range of countries with Korea, Japan and France being the most important. Wood is not regarded as a status-building material within Swaziland and no grading or classification standards are observed. Thus, the domestic market is minimal.

Due to favourable soil and climate conditions, Swaziland has considerable potential for further development of its forestry sector. However, there seems to be a reluctance towards the utilization of this potential. This may be due to a number of reasons including:

- i) The Control of Tree Planting Act of 1972 states that no trees will be planted on agricultural land and intermediate land without special permission from the Ministry of Agriculture and Cooperatives. Such permissions are very difficult to get. That is, only on marginal land with slopes of more than 15% can trees be planted without permission, and there is therefore little scope for extending timber plantations.
- ii) Forest fires are very common due to the tradition of burning the veld and the prevalence of lightning.
- iii) There is in general a feeling among the Swazis that "trees take away from cattle". That is, it is supposed that more trees mean less cattle. In addition there is a complete lack of forestry legislation. A proposed legislation is still being considered.

III. INSTITUTIONAL ARRANGEMENTS AND AGRICULTURAL SERVICES

It has already been mentioned that the institutional framework is particularly complex in Swaziland. Because of the juxtaposition of traditional and modern authority, a dual decision-making process is involved at both the planning and execution stage. Furthermore, a broad range of decisions in relation to the agricultural sector are frequently raised both at the Cabinet level and by the Swazi National Council (SNC); some can be resolved only by the King. Many Government agencies have responsibilities affecting agricultural development and coordination among their activities is a significant problem, although some coordination is achieved through the Rural Development Committee (RDC) consisting of all Permanent Secretaries.

1. The Ministry of Agriculture and Cooperatives

The Ministry has four major departments each headed by a Director, reporting directly to the Permanent Secretary; Agriculture (principally for crops), Veterinary Service (Livestock), Research and Planning, and Cooperatives. In addition, sections for personnel, finance and common services report to the Permanent Secretary through an Under-Secretary. A detailed Organizational Chart of the Ministry and its departments is given in Annex 4.

1.1 The Department of Agriculture

This Department headed by the Director of Agriculture and a Senior Agricultural Officer contains a large number of sections including-

- 1) District extension offices and a Crop Promotion Unit;
- ii) The Rural Development Areas (RDA) Section, responsible for RDA extension staff and coordination of programmes affecting these areas;
- iii) Land Development, responsible for soil conservation works, feeder road construction, and development of small dams and irrigation schemes.
- iv) Home Economics; and
- v) Community Development.

In addition, there are sections for Fisheries, Forestry, Food and Crop Storage, Soil Testing, Farmers Training, Publications, Food Aid, Small-Scale Irrigation, Mechanization, a programme for Rural Youth Development, a Seed Development Project, a Women in Development Project, and a Pineapple Settlement Scheme.

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Agricultural extension staff working with farmers engaged in crop production, are organized by district except in the RDA's where the staff reports directly to the RDA Management Unit through RDA Project Managers. The crop extension staff is limited with 5 Senior Extension Officers, 18 Extension Officers, 35 Assistant Extension Officers and 80 Field Officers. In addition, there are 3 Agricultural Officers in the Crop Promotion Section. The target ratio of number of farm families per Field Officer has been established at 200:1. There are 7 RDA Managers and the RDA Management Unit has a staff of 8 professional officers.

The Land Development Section in addition to a considerable USAID input of 7 officers has 10 professional officers and Home Economics and Community Development 37 and 24, respectively. Other sections have a professional staff of up to 10.

It can be noted that all sections suffer from manpower constraints and that many staff have insufficient training. However, in addition it is characteristic for the extension service that there is a lack of proven, managerially feasible and economically attractive advice, and it is consequently difficult to develop disciplined extension work programmes and clear patterns of supervision. The question of a better structural organization of the extension service is under discussion. However, the importance of clearly identified extension objectives must be recognized.

1.2 The Department of Veterinary Services

The Veterinary Department has two sections: a large, well-staffed and organized Veterinary Services Division, responsible for animal health and abattoir inspection, and a relatively new Animal Production Division which oversees livestock extension work and activities of breeding, SISA and fattening ranches.

The professional staff, totalling approximately 275, includes the Director, a Senior Veterinary Officer, a Senior Husbandry Officer, a Chief Animal Health Inspector and a Senior Ranch Manager. There are some 14 Senior Veterinary Assistants, 122 Veterinary Assistants, 7 Veterinary Officers, 11 Animal Health Inspectors, 17 Assistant Animal Health Inspectors, a Senior Smear Inspector and 3 Smear Inspectors, a Senior Meat Inspector and 7 Meat Inspectors, 7 Cordon Inspectors and an Assistant Veterinary Education Officer. The Livestock Extension Service includes 5 Livestock Extension Officers and 18 Assistant Livestock Extension Officers. In addition,

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there are 4 Animal Husbandry Officers, 2 Range Management Officers, 19 Ranch and Assistant Ranch Managers, a Fattening Ranch Officer, a Dairy Extension Staff of 5 and a Poultry Extension Service of 11. Of other staff it can be mentioned that there are 11 Farm Foremen.

1.3 The Department of Research and Planning

This Department created in 1978 and headed by a Director presently provided by UNDP/FAO (SWA/78/021) has six sections/divisions:

- i) The Economic Analysis and Planning Section is headed by the Senior Agricultural Economist and consists of six professionals in addition to the Monitoring and Evaluation Unit of the RDAP. The Section is responsible for all project analysis, preparation and subsequent monitoring of performance besides socio-economic and sociological progress and trends within the RDA's. The Section is also responsible for the preparation of both Capital and Recurrent Budgets for the Ministry and carries out all financial feasibility analysis for agricultural loan purposes as requested by the Swaziland Development and Savings Bank.
- ii) The newly created Marketing Advisory Unit working closely with the Economic Section is providing advisory services to the Ministry on all matters relating to marketing and marketing development. The unit consists of two expatriate staff provided by UNDP/FAO under SWA/78/014 - Assistance in Marketing for Rural Development. Their two Swazi counterparts are presently on training abroad.
- iii) The Land Use Planning Section is headed by the Senior Land Use Planning Officer and is responsible for all activities related to land use planning including those having to do with physical planning in the RDA's (settlement, erosion control, water resources, roads, etc.) and other activities as requested. As such, there is a close inter-dependence between this and the Economic Planning and Analysis Section - especially in relation to water resources development, soil conservation and alternative uses of agricultural land. The Land Development Section in the Agricultural Department receives its plans (including structural design) from the Land Use Planning Section. The total professional staff is 12 in addition to a USAID input of 6 Officers.

- iv) The Land Valuation Section with a professional staff of 2 is headed by a Senior Officer and is primarily engaged in the valuation of, and subsequent negotiation for, alienated lands which Government is now attempting to bring back under Swazi ownership.

- v) The Research Division responsible for running the research and field stations is headed by a Chief Research Officer. Personnel consists of 13 professional research posts and a supporting staff of approximately 40 sub-professionals. However, at present only 3 of the 13 professional posts are filled. Some posts have been vacant for more than three years. UNDP/FAO assistance under SWA/78/015 is providing overall technical advice in addition to a Socio-Economic Adviser. In addition, Government is planning to request USAID assistance in Cropping Systems Research.

- vi) The Programme for Better Family Living (PBFL) is a UNFPA/FAO Project (SWA/75/P02) described more closely in Chapter IV, Section 5.2.2. The project is reporting directly to the Director of Research and Planning.

1.4 The Department of Cooperatives

The Cooperatives Department was established in 1963 in the Ministry of Agriculture and Cooperatives where it stayed till May 1972 when it moved to the now defunct Ministry of Commerce and Cooperatives. In 1979 the Department moved back to the Ministry of Agriculture.

The Government is promoting the cooperative movement as part of its overall development programme. Organisation of primary cooperatives is being encouraged, and the Government is assisting in organization and development of the Central Co-operative Union (CCU) which receives assistance from USAID (cf. Chapter IV, Section 5.1.2 and 5.2.3 and Section 5 of this Chapter). The Cooperative Development Centre (CODEC) is receiving SIDA/ILO assistance (SWA/73/011).

The Cooperative Department is headed by the Commissioner of Cooperative Development with a Deputy Commissioner and two Assistant Commissioners, one for Audit and one for Education and Training. The Audit Section comprises three auditors under the Assistant Commissioner who have the nation wide responsibility for auditing the accounts of all cooperative

societies and unions. Each District has established posts for a Senior Cooperative Officer, a Cooperative Officer, three Assistant Cooperative Officers and a District Marketing Officer, but only 15 out of these 24 posts are filled. USAID provides an additional 3 professionals.

The Cooperative Development Centre (CODEC) with two expatriate experts has a professional staff of only three Swazis although six posts have been established.

1.5 Budget

A summary of the Ministry of Agriculture and Cooperatives expenditure estimates for 1980/81 is shown in Table 12, below, and Annex 6 gives the details.

Table 12: Ministry of Agriculture and Cooperatives Recurrent and Capital Budget 1980/81

(Thousands Emalangeni)

<u>DESCRIPTION</u>	<u>RECURRENT</u>	<u>CAPITAL</u>		<u>TOTALS</u>
		GOVT	OTHER	
Minister	76	-	-	76
Ministry Administration	1,230	291	955	2,476
Livestock	2,868	350	733	3,951
Crops	1,206	452	912	2,570
Fisheries	93	30	-	123
Forestry	121	128	-	249
Rural Dev. Areas	640	1,887	7,645	10,172
Land	529	-	-	529
Research	648	468	-	1,116
Home Economics	232	84	-	316
Economic Planning	96	-	-	96
Cooperatives	257	220	-	477
	<u>7,996</u>	<u>3,910</u>	<u>10,245</u>	<u>22,151</u>

Note: Details of the 1980/81 budget are given in Annex 6.

Source: Government of Swaziland, "Estimates for the year from 1st April 1979 to 31st March 1980".

Comparing the overall 1980/81 budget with that of 1979/80, it can be noted that the share of the Agricultural Sector as a whole, which i.a. includes significant inputs into the Ministry of Works, Power and Communications, of total expenditures has decreased from 18.7% to 11.5%. This is due to a diminished flow of capital resources from E25.3 to E16.1 million. The relative decline is from 25.2% to 13.1% of total capital expenditure. The share of the agricultural sector as a whole of recurrent expenditure is almost the same with only a slight decrease from 9.2% to 9.1%.

In analyzing the reasons for the above decline it can first of all, be noted that part of the decline is due to the completion of the Mnjoli Dam which is considered an activity of the Ministry of Works, Power and Communications. However, an analysis of the expenditures on projects under the Ministry of Agriculture and Cooperatives alone also shows considerable changes. In summary, it can be noted that although recurrent expenditures of the Ministry are up by 28% the total flow of resources is down by 11% since the flow of capital resources is down by 24% (from E18.7 to E14.1 million).

Table 13, below, shows how the total decline of E4.6 is composed.

Table 13: Capital Expenditure Estimates of the Ministry of Agriculture and Cooperatives 1979/80 and 1980/81
(Thousands Emalangeni)

Description	1980/81	1979/80
Minister	-	-
Ministry Administration	1,246	1,394
Livestock	1,083	1,526
Crops	1,364	1,845
Fisheries	30	132
Forestry	128	112
RDAP	9,532	13,138
Land	-	-
Research	468	508
Home Economics	84	6
Economic Planning	-	-
Cooperatives	220	36
TOTAL	14,155	18,697

Source: See Table 12.

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It is evident that a major reason for the overall decline is that a number of activities under the RDAP have been completed. This alone accounts for E3.6 million. However, also in Crops and Livestock there are major decreases amounting to almost half a million Emalangeneni each. The only sections which have plans for expanding their capital activities are Forestry (a wattle forestry development project), Home Economics (a nutritional rehabilitation centre) and Cooperatives (a CCU warehouse and an extension of the CODEC dining room). The only other new projects are oustation housing for community development and a piggery at Lundzi. The total cost of these new projects is less than E1 million. An already planned expansion of the RDAP is the only other new entry in the capital budget.

In conclusion, it can therefore be said that the Ministry's recurrent budget will expand more than the general trend within Government; but on the capital side the almost complete absence of projects imply a marked decrease in the flow of resources. The question of actual versus capital expenditure will be discussed in Section 1.6 below; but the 1980/81 budget is an indication of a conscious cut-down in some activities in addition to inability to find donors for other proposals (i.a. a marketing infrastructure project). The cut-downs must be seen against the overall optimistic expectations about the Ministry's ability to implement projects in the past, and the present budget is therefore in this sense a more realistic one. Of specific relevance in relation to the inability to implement projects in the past it can be noted that Central Government Ministries and Departments have not created the number of posts as stipulated in existing project documents.

1.6 Capital Budget versus Actual Expenditures

Over the years large discrepancies between planned and actual expenditures have been experienced on the capital side, and in f.i. 1971/72 and 1972/73 only 23% and 32% of the total approved were actually expended. Table 14, below, shows the situation in more recent years.

Table 14: Ministry of Agriculture and Cooperatives:
Capital Budget Approved versus Expended Funds
 (Millions Emalaneni)

	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80
Total Approved Estimate ^{1/}	3.3	3.4	5.3	5.7	5.7	10.9	18.7
Expended	2.5	2.9	2.0	2.7	3.8	5.0	...
Expenditure as % of Estimate	76%	85%	38%	47%	67%	46%	...

Note: ^{1/} Total approved estimate includes appropriations to projects under the Ministry of Agriculture and Cooperatives; but part of the funds are appropriated to the Ministry of Works, Power and Communications. Also other funds are beyond the direct control of the Ministry of Agriculture and Cooperatives.

Source: Government of Swaziland, "Treasury Annual Reports", 1973-79.

The figures clearly show that capital projects have been completed much slower than planned. The reason for this lamentable situation is two fold:

- i) an over-eagerness on the part of donor agencies to foster (i.e. "push") projects onto Government, coupled with a like disposition on the part of Government to accept all such proposals; and
- ii) an almost complete lack of internal planning (i.e. on a year-to-year basis) and monitoring of individual projects by the Ministry itself. This is highlighted by the fact that the implementation rate in 1979/80 as compared to the original budget is expected to be rather high even if a large share of the approved capital budget was later diverted to cover deficits of the national airline and shipping companies - both of which are owned by the Swazi Nation - in contrast to the Government.

Another evidence of the importance of the Ministry's capability to monitor projects is the sizeable increase in the implementation rate in 1977/78 which appears to be the result of a stringent bar-chart exercise initiated by the Senior Agricultural Economist, then provided under UNDP/FAO funding (SWA/75/012).

2. Central Rural Development Board (CRDB)

The CRDB, established in 1954, oversees all activities on Swazi Nation Land on behalf of the SNC; it reports directly to the King and includes important traditional leaders and chiefs. The CRDB must approve

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all projects and plans for rural development schemes. It normally acts on proposals at a conceptual level and when detailed land-use plans are prepared. An important part of the approval process is consultation with local chiefs and people involved. The Board is in reality the King's representative in the planning process with the major function of bridging the gap between the communities and technical staff of Government in matters related to rural development. The Board appoints Rural Development Officers (seven at present) who assist in preparing, presenting, and carrying out development schemes working actively to enforce CRDB decisions. These do not - as pointed out in Chapter I Section 3 - always correspond with the aims of the Ministry, and in addition, the increased bureaucracy tends to slow down the decision making and consequent implementation of projects.

3. Agricultural Credit

Institutional agricultural credit is well developed in Swaziland, but it is geared primarily towards the commercial sector. Credit is available to farmers from four principal sources:

- i) the Swaziland Development and Savings Bank (SDSB) or Swazi Bank;
- ii) cooperatives, including both primary societies and CCU;
- iii) processing companies; and
- iv) commercial banks.

SDSB was established in 1965, and has five branch offices in addition to the main office at Mbatane. SDSB's authorized capital is E5 million partly subscribed by the SNL and USAID. As of 31 December 1979 outstanding loans stood at E18.9 million. About 29% of total loans were for agriculture, 25% for the business sector, 37% for housing and 9% for other purposes.

Under its Agricultural Advisory Credit Scheme, financed mainly by a loan from USAID, SDSB extends seasonal loans which carry a concessional rate of interest of 6% per annum directly to small farmers. Cattle is the primary source of collateral due to restrictions laid down in the bank charter. This implies that small farmers without cattle can only obtain credit if a relative or a friend is willing to pledge his cattle to secure the borrower's loan. A total of 3,447 loans between E80 and E1,000 with the total balance at E734,959 were outstanding as of 1 December 1979.

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Loans are restricted to agricultural inputs, small farm implements and dairy cows bought through the Ministry of Agriculture and Cooperatives. For the purpose of approving requests for loans SDSB has divided the country into four areas each headed by a Senior Credit Adviser, who controls and supervises all Credit Advisers and their assistants. He is authorized to approve loans up to E500 and is directly responsible to the SDSB Head Office.

The scheme has a delinquency rate of 20% of total loans and 15% on total disbursements and the two main problems are that the scheme is running at a loss despite subsidies from the World Bank and is running short of funds for expanding or even maintaining present levels of lending to small farmers.

SDSB has so far extended loans to small farmers indirectly through the Cooperatives. The total credit extended in this way in 1979/80 amounted to E1.4 million mainly to cotton farmers. However, very low recovery rates have created financial problems of such magnitude that the future of the Central Cooperative Union (CCU) as well as that of the Cotton Cooperative is jeopardized. There are numerous and interrelated factors on borrowers' as well as on lenders' side causing this.

In addition to the SDSB loan channeled through the cooperatives, primary cooperatives have given credit on farm supplies amounting to some E1.32 million in 1979/80.

Regarding the future of cooperative credit it can be noted that the credit to cotton farmers is continuing in a strictly curtailed way through intervention from the Cotona Cotton Ginnery. However, the credit from primary societies has been suspended for 1980/81 reverting all sales to a cash basis.

Credit from processing firms to small farmers is increasing as already indicated above but no estimates of the total amount are available. Virtually no commercial bank credit is available to Swazi Nation Farmers, although a few loans mainly for marketing purposes have been expended through the cooperatives.

4. The Marketing System

The marked dualism in Swaziland's agriculture is reflected in the marketing systems that have developed to cater for the marketable surplus emanating from the two sectors. In general, marketing bodies and marketing legislation in Swaziland have centred on and catered to farmers on title deed land. It is only since independence, when development efforts were also diverted to farmers on Swazi Nation Land and crop production i.a. tobacco and cotton that these took on a greater significance and marketing facilities, in the form of primary co-operative societies, were developed or the facilities or mechanisms catering to TDL farmers were extended to service the needs of the SNL farmer.

The following organisations are involved in agricultural marketing in Swaziland:

- Sugar - Swaziland Sugar Association
- Citrus - Citrus Board (in conjunction with the South African Cooperative Citrus Exchange)
- Tobacco - Swaziland Co-operative Tobacco Co. (in conjunction with the Tobacco Industry Control Board - South Africa)
- Maize - Swaziland Milling Corporation
- Cotton - Swaziland Cotton Co-operative and Cotona Ginery
- Meat - Swaziland Meat Corporation
- Milk - Swaziland Dairy Board
- Pineapples - Swaziland Pineapple Association

Legislation controlling agricultural marketing in Swaziland dates back to March 1931 when the Cooperative Societies Act was enacted. The promulgation of this Act was aimed principally at the Title Deed Farmers who were encouraged to form co-operatives for marketing their export crops so as to be able to enter the co-operative marketing schemes which were then operating in the former Union of South Africa. The Tobacco Act came into force in 1933 and the Compulsory Sale of Tobacco notice introducing the single channel marketing of tobacco through the Swaziland Co-operative Tobacco Co. followed soon after. The Citrus Act establishing the Swaziland Citrus Board and abolishing the former Swaziland Citrus Co-operative was enacted in 1967 as was the Cotton Act which established the Swaziland Cotton Board. A new Co-operative Societies Act was enacted in 1964 outlining new procedures for the establishment and operation of such societies; inter alia this Act determined that ten farmers would constitute the minimum necessary to form a primary co-operative society. Only tobacco and citrus are crops where single channel organized marketing has been introduced and, in the case of the latter,

it only refers to citrus grown on large title deed estates.

4.1 Maize, Beans, Sorghum and other Pulses

In May 1959 the Swaziland Milling Company (SMC) based in Manzini was by agreement appointed as the sole importer of maize products within a framework of price control promulgated by the Government. In addition SMC was obliged to buy all Swaziland maize offered for sale at a Government fixed minimum floor price, which was uniform throughout the country, provided certain conditions were met. These included quality measures and that the maize should be supplied in quantities not less than 30 bags (2.73 tonnes).

The agreement was, however, not renewed by Government in 1976, so SMC is no longer obliged to buy maize offered for sale and any individual or firm who has obtained a maize import licence from the Ministry of Agriculture and Cooperatives can import maize.

However, the primary commercial outlet for maize grown in Swaziland as well as beans, sorghum and other pulses remains SMC, although the procedures adopted by SMC in securing maize, i.e. purchases must be over 30 bags, tend to preclude the small farmer from being able to offer maize to SMC except if they are grouped into a co-operative or farmers association. The maize marketing system in Swaziland is essentially a "passive" system whereby the principal buyer accepts to take in maize that is offered to it but it does not go out to "actively" procure maize from local farmers. In this system the buyer also does not provide the basic services to small farmers, considered necessary if they are to be encouraged to sell any maize surplus that they might produce e.g. cash payment and bulking of small purchases. The situation is further aggravated in that primary procurement through co-operative societies, such as in the case with cotton and tobacco, is not encouraged as no handling fees or commissions are allowed for in the maize price structure which would be required to re-imburse the co-operatives for primary procurement activities, e.g. grading, storing, paying, shrinkage or book-keeping. Consequently, SMC appears to have purchased only a very small percentage approximately 6% of the total maize crop produced in Swaziland in the 1960's and early 1970's.

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Some maize is traded at the local community level in non-commercial markets, and many farm households mill their neighbours' maize in addition to their own; but data are scarce on this aspect of maize trading.

Prices continue to be fixed annually by Government in relation to those prevailing in South Africa with adequate adjustments for haulage. There is a small element of subsidy on imported maize as administration, handling and storage costs of the South African Maize Board are paid for by the Government of South Africa rather than being recovered from the consumer of maize. However, regular South African subsidies are now being removed and also the railage rebate on export of maize to Swaziland and other neighbouring countries have been abolished.

4.2 Tobacco

Air cured tobacco is sold by small farmers to the Swaziland Co-operative Tobacco Company located at Nhlangano where it is graded and processed ready for sale on instructions from the Tobacco Control Board in South Africa to tobacco manufacturers in South Africa. Flue cured or burley tobacco grown on TDL is sold to a tobacco cooperative in Nelspruit, South Africa, where specialized processing facilities are available.

4.3 Cotton

Cotton marketing underwent a significant change in 1977/78 with the formation of the Swaziland Cotton Cooperative which was set up to increase the share that cotton farmers could get of the price received for final lint and seed. Formerly all seed cotton was sold directly to the ginneries who then took title to the cotton and ginned and sold it for their own account. Cotton marketed through the Cotton cooperative amounting to 30% of the total remains the property of the cooperative through the ginning process until the lint and seed is sold to the final buyer. The cooperative pays a ginning fee to the ginnery and it sells the lint and seed (through the ginnery sales department) and profits from lint and seed sales are used to cover the cooperatives' operating costs and for use as a second payment to the members.

In 1978, the Cotton Cooperative had some 129 direct members and 8 cooperative societies affiliated to it; in 1979, direct members increased to 600 with 10 affiliated cooperative societies. The cooperative acts as a credit distribution agency to cotton farmers providing funds for seeds and cotton cultivation and harvesting.

It must be mentioned, however, that the Cotton Cooperative has faced severe financial problems in 1980, largely due to debt accumulated from 1978 because of inability to collect debt from farmers who sold their cotton directly in South Africa.

The cotton crop is marketed under the South African Cotton Marketing Scheme, which regulates crop up-take and supply allocations to ginners and spinners and determines producer prices annually. Under the scheme the local ginners at Matsapha purchases about 50% of the seed output in competition with three firms in South Africa at Barberton, Magut and Hectorspruit.

4.4 Vegetables

The marketing channels and marketing opportunities open to vegetable producers in Swaziland vary according to the type of producer, the produce he has to offer and also the location of the production.

i) Title Deed Farmers: These farmers, producing mainly tomatoes, cabbages, potatoes together with onions, green maize, carrots and pumpkins are characterized by a high degree of certainty of sales having written contracts with processing and trading organizations in the Republic of South Africa for potatoes and with local institutions in Swaziland i.e. hotels, universities and schools for a wide range of produce. Because of their size and reliability of production, this group of farmers has regular contacts with important middlemen and local traders to supply them with produce in season. Farmers on Title Deed Land face few problems in transporting their produce having their own means of transport or produce in sufficient quantities to justify regular visits by middlemen.

ii) Vuvulane Farmers on Vuvulane Irrigated Farms (VIF): The 263 Vuvulane farmers produce four main vegetables - green maize, potatoes, cabbages and tomatoes. Most of the potatoes and cabbages are sold in the central area whilst green maize is exported to South Africa through itinerant traders who come to collect the maize at the farmgate

and transport it to the Durban urban market. Green maize at Vuvulane is available for ^{the} market at least one month before that from other areas in Swaziland or in the Republic of South Africa and, therefore, finds a ready market outlet.

iii) Farmers on Swazi Nation Land: For vegetable growers on Swazi Nation Land (SNL) which includes all RDA's and other private Swazi farmers, a distinction has to be made between producers in the NRDA and those in the Southern schemes. In the NRDA, tomatoes of the Roma type are the main crop and some 50% is exported mainly to a processing plant at Malelane, South Africa or by itinerant traders who sell on the Barberton or Durban fresh vegetable markets. Local sales are to workers at the Havelock mine, local pulp mills and citrus estates and some produce is sent to the central areas. Production in the southern schemes - Mahlangatsha, Kalanga, Magwanyana, Southern RDA - is primarily sold locally. Transport to other areas especially South Africa is hampered by poor communications and the relatively isolated position of the schemes. Poor feeder roads combined with small scale unreliable production discourage visits by itinerant middlemen to collect produce from the schemes.

Farmers on Swazi Nation Land face the most acute marketing problems; SNL farmers have poor access to markets, a high degree of uncertainty of sales, few possibilities for contracts and sales are through a wide variety of outlets with frequent changes in outlet overtime. Transport is perhaps the most critical problem facing SNL farmers. Farmers on Swazi Nation Land and RDA irrigation schemes are generally poorly organized and their production is unplanned and often concentrated into short periods leading to occasional gluts and low prices. Because of the uncertainty of Swazi smallholder production, traders often prefer to secure their supplies from South Africa where produce of the required quantity and quality are easily available and Swazi production although available remains unsold. A further characteristic of Swazi smallholder vegetable production that inhibits marketing is that produce is not prepared ready for sale. Traders wanting produce have to harvest the produce from fields themselves or with their own labour as produce is not picked and bagged or boxed ready for sale. Farmers are often absent and the need for "self-harvesting" often detracts traders from purchasing from Swazi Nation Farmers. This lack of preparation of produce ready for sale is because the Swazi farmer is not sure of when he will make a sale and therefore hesitate to harvest until the itinerant trader appears at his plot.

4.5 Other Crops

Sugar, citrus, pineapples and other fruits produced in Swaziland are grown principally on title deed land; most are destined for export to South Africa or other markets, and marketing is organized through the respective associations.

4.6 Live Cattle and Beef

Producers sell live cattle through two principal outlets:

- (a) informal locations (dip tanks or locally), and
- (b) formal locations (auction yards, Swaziland Meat Corporation (SMC) and fattening ranches).

Most cattle are sold directly for slaughter but some are consigned to fattening ranches, whence they are sold for slaughter. Some 68% of the cattle are sold informally; the majority being sold at dip tanks, where farmers can sell without restriction with prices negotiated between buyer and seller. The remaining 32% are sold at the three formal locations, auction yards (15%), SMC (12%) and fattening ranches (5%).

It appears that while SMC buyers and traders do purchase at dip tanks (they buy about 1/3 of the cattle sold at dip tanks) local demand for cattle by neighbours and local butchers largely determines the size of the informal market. When cattle supply exceeds this demand sellers are obliged to seek the formal market outlets. The overall distribution of buyers has been estimated to be the following: SMC buyers (29%) local butchers (26%), neighbours (14%), traders (10%) and others (21%).

It can be noted that only about 9% of cattle sales are undertaken because the cattle is ready for the market. Other reasons for selling are for medical, clothing and farm expenses (28%), school fees (19%), food (19%), lobola or to buy other stock (11%), vehicles or building materials (8%) and because cattle were weak or wild (6%).

When cattle is sold because they are ready for sale formal rather than informal locations are used, but informal markets are preferred in general because it is more convenient.

The Government is seeking to encourage producers to sell cattle through utilization of fattening ranches. Further, an agreement with the Swaziland Meat Corporation to guarantee a floor price for cattle forms part of the Government effort to encourage increasing sales by farmers.

Swaziland has experienced problems in marketing beef since the EEC imposed import quotas and instituted levies on imported beef, because the UK has traditionally purchased about 95% of Swazi meat exports. The Government has however negotiated an agreement with EEC providing for a quota of about 3,000 tonnes of meat a year; further, 90% of the levy imposed on imported beef is under the agreement retained by the seller (the Swaziland Meat Corporation), on the understanding that it would be paid to the Government. The Government has agreed with the Swaziland Meat Corporation that in lieu of payment of the levy, the Corporation will guarantee the above mentioned floor price for cattle purchases, and agree to buy all cattle offered to it.

Prices received for Swazi beef exports reflect closely world market prices.

4.7 Milk

The modern largely urban-centred dairy industry is focussed on Swaziland's new milk plant, located in Matsapha which is owned and managed by the Swaziland Dairy Board.

The Matsapha milk plant is supplied with fresh milk

- (a) collected from Swaziland producers, mostly in the Lowveld and the Malkerns Valley (Tibiyo and the CIDA assisted dairy project), and
- (b) imported from South Africa.

Local production is concentrated in the summer months of November-May, leaving a large import requirement for the rest of the year. The Swaziland Dairy Board is improving collection facilities in the Middleveld and Lowveld by providing collection depots, cooling centres and collection trucks. In addition to the new Matsapha milk plant a feed mill has recently been constructed as part of the CIDA supported dairy project, and the intention is to make Swaziland self-sufficient in milk by 1986.

Milk prices which are high compared to South Africa are controlled by the Dairy Board.

4.3 Agricultural Inputs

Two firms - Swaziland Chemical Industries (SCI) and Farm Chemicals - are the main suppliers of fertilizer in Swaziland with the latter also being the principal supplier of agricultural chemicals. Prior to the establishment of SCI in late 1976, Farm Chemicals was the principal fertilizer supplier either importing bagged fertilizer from South Africa or importing the basic ingredients and mixing it in their small bulk blending plant.

Swaziland Chemical Industries based near Matsapha is a fertiliser manufacturer and blending/mixing company producing fertiliser under the "Bonus" label. SCI produces ammonium nitrate out of nitric acid and anhydrous ammonia and it blends imported raw materials and fertilizers into high nutrient mixtures. Plans are underway to start producing L.A.N. and to build a granulation plant to improve the quality of fertilisers produced. SCI exports fertilizers to South Africa and Lesotho and exports are forecast to reach 100,000 tons in 1980 as compared to 48,000 tons in 1979.

The two chemical companies share the Swaziland market between them, each supplying 50% of the country's N.P.K. requirements by agreement between themselves and Government. Fertilizer is distributed to TDL farmers directly by the two chemical companies. Sales to SNL farmers are made by CCU which orders half its requirements from each company and then sells the fertilizer through the District Unions and primary co-operative societies affiliated to it to the small Swazi farmer.

As already mentioned in Section 3.10 of Chapter II Government does not exercise any price control on fertilizer. The price is based on the South African gross price at one of the four dispatch points from which a number of discounts are made to prevent buyers in Swaziland purchasing directly in South Africa. Also, a number of important clients do receive extra discounts, but this practice is not in accordance with any fixed rule.

5. Agricultural Research

Agricultural research was begun in Swaziland with the establishment of the Research Division of the Ministry of Agriculture in 1959. The National Agricultural Research Centre was established at Malkerns in 1962 and consists of approximately 400 hectares of land, an administration building, various laboratories (for chemical analysis of soils and plants, entomology and plant pathology), greenhouses, and staff housing. Sub-stations were later established at Big Bend in the Lowveld, Nhlanguano and Luve in the Middleveld, and Mangcongco and Hebron in the Highveld. In 1972, responsibility for research was transferred to the University of Botswana, Lesotho and Swaziland, College of Agriculture, where it remained until 1978, when it was transferred back to the Ministry of Agriculture.

Fourteen disciplines have made up the areas of agricultural research. Those areas are: (1) Crop Agronomy, (2) Horticulture, (3) Veld and Pasture Management (has been limited in scope), (4) Dryland Crop Production (only established in recent years), (5) Soil Fertility and Crop Nutrition, (6) Soil Chemistry, (7) Soil Physics, (8) Plant Pathology, (9) Entomology, (10) Cotton Breeding, (11) Cotton Entomology, (12) Biometry, (13) Forestry, and (14) Pineapples.

Research has been carried out by an expatriate staff mainly on research stations for the past several years, and traditionally has met the needs of estates and the larger title deed land owners and not the needs of farmers living on and farming small plots on SNL. Also this research has focussed on monocropping while, traditionally, the Swazi small farmers have practised inter-cropping.

Therefore, a major renovation of research is underway involving starting with the rural family as the basis from which inter-disciplinary programmes for rural development can be formulated, and thereby making research of direct relevance to the small farmers' needs. UNDP/FAO assistance under SWA/78/015 is an integral part of this process.

The expatriate staff who had been responsible for carrying out the past research departed in early 1979 when their positions were not gazetted within the civil service system, and their contracts were not renewed by the Government. In late 1979 the Government established and gazetted thirteen professional positions in the Agricultural Research Division, and is currently in the process of recruiting staff for these positions. However, only three posts (including that of Chief Research Officer) have been filled at present and since only a limited number of Swazis qualify for the posts it has been necessary to advertise on an international basis - so far with relatively limited success. It is, therefore, hoped that a proposed USAID project in cropping systems research and extension training and SWA/78/015 can give necessary impetus to agricultural research until the Research Division can be fully manned.

6. Agricultural Extension Services

In addition to the information given in Section 1.1 of this Chapter it can be noted about the extension services that the organizational structure is fragmented with elements of extension dispersed among several units of the Ministry of Agriculture and Cooperatives without formal linkages to the University and the Research Division. The extension service is specialised - not general - and there are clear divisions between crop extension and animal husbandry extension. In addition there are Poultry Extension Officers, Horticultural Extension Officers, Fisheries Extension Officers, Home Economics Extension Officers etc. Farmers can be visited by some five or six different extension workers. Field specialists and Extension Field Officers may find themselves competing for the farmers' time rather than supporting each other in farm visits, programme planning, evaluation and reporting. Extension Officers are generally supervised by staff who have little practical training or training on other relevant aspects of extension work and lines of command and communication are unclear. In addition, extension staff have for the most part inadequate transport facilities and no teaching aids and, as already mentioned, the lack of proven, managerially feasible and economically attractive advice is a serious shortcoming which must be overcome in order to have an efficient extension service.

A proposal for a new structure of the extension services has been developed. It recommends a unified extension structure where those sections of the Ministry presently providing extension services separately would be incorporated, so as to simplify the line of command. Specialized personnel in the different sections would be absorbed into subject matter specialist groups both at Headquarter and Regional levels. At grass-root levels a more generalized approach would be introduced allowing access by field staff and farmers to more expertise on individual items as required from the subject matter specialist groups.

The proposal, therefore, takes account of some of the major problems indicated above, but it is still being considered by relevant authorities.

7. Agricultural Education and Extension Training

Higher education and training in agriculture is undertaken by the University of Botswana and Swaziland Faculty of Agriculture (UBS). The University of Botswana, Lesotho and Swaziland (UBLS), established in 1964 with its headquarters in Lesotho, was the forerunner of the present UBS. In 1975, Lesotho withdrew its affiliation to establish its own university. At present there are six major fields of specialization offered at the three levels, as shown below:

	<u>Length of course</u>	<u>No. of Student (1978)</u>
<u>Degree Level</u>		
B.Sc. in General Agriculture	4 years	30
<u>Diploma Level</u>		
Diploma in General Agriculture	2 years	66
Diploma in Agricultural Education	2 years	57
Diploma in Animal Production and Health	2 years	58
Diploma in Home Economics	2 years	62
<u>Certificate Level</u>		
Certificate in General Agriculture	1 year (post J.C.)	40

In addition, there is a significant number of Swazis pursuing undergraduate and graduate training in agricultural subjects overseas.

In an attempt to improve the Extension Field Officer/farmer ratio (cf Section 1.1) the Ministry of Agriculture and Cooperatives in 1977 re-established the Certificate Training course in Agriculture, which is a one year programme. The programme had been dropped by the College of Agriculture in 1972, but is now the source of new field officers. The Ministry leases facilities from the College and 40 students are enrolled each year.

Farmer training and in-service training for field staff from the Ministry of Agriculture and Cooperatives is undertaken in four Farmer Training Centres in the form of short courses. The courses offered include, for example, crop production, pest control, grain storage, poultry production, cattle management, agricultural credit and cooperatives. However, the centres have not been fully utilised and their effectiveness is being questioned by Government officials.

It can, furthermore, be pointed out that schools are not in general oriented to providing education for rural youth, but curriculum development studies are underway, aimed at making education more relevant for rural youth. Rural Education Centres are being established under a IBRD/IDA-financed project to provide both adult education and specialized training in agricultural subjects. Finally, training at CODEC is mentioned in Section 8, below.

8. Co-operatives

The Swaziland Government attaches a high priority to the development of cooperatives as a means of bringing services to the small farmer in the rural areas, to increase their involvement in the economic development of the country and commercialize the traditional subsistence farmer on Swazi Nation Land. Unlike in many countries there is no well-established trading sector in the rural areas of Swaziland to provide that community with farm supplies and basic consumer goods nor to market their produce. The development of farmer and consumer cooperatives in the rural areas is meant to overcome these limitations and act as a catalyst in commercializing small farmer agriculture.

The Department of Cooperatives Development was created in 1963; the registration of new cooperative societies, which at first progressed very slowly, increased rapidly in the 1970's so that by 1979, some 134 societies had been registered between 1970 and 1979; the majority (90) being farmers cooperatives. There are 30 savings and credit cooperatives, 5 consumer cooperatives and 9 other cooperatives. Some 102 societies can be considered to be active.

In recent years the cooperative societies, especially in the RDA's have been encouraged to become multi-purpose societies providing inputs, credit and marketing services to their members. In the 1979/80 crop year gross sales of farm supplies made through the four District Unions amounted to E1.66 million of which E1.32 million were made on credit. Cooperatives presently handle approximately 30% of the local cotton crop and 100% of the local tobacco crop.

In 1979, the Department of Cooperatives Development was transferred from the now defunct Ministry of Commerce and Cooperatives back to the Ministry of Agriculture and Cooperatives. The Department comprises Headquarters and field staff operating in the districts and the Cooperative Development Centre (CODEC) established with funds made available through Swedish Trust Funds through ILO (SWA/73/011). CODEC provides facilities for the training of Departmental staff and movement members in cooperative management and related subjects. The Department of Cooperatives Development also provides guidance and direction to the Central Cooperative Union of Swaziland (CCU) through the field service officers, audit and supervision services, etc. CCU, an apex cooperative organisation also has under it the four secondary unions (one in each District) and the aforementioned primary societies. In addition there is the National Cotton and Tobacco Cooperatives.

The basic problems affecting the cooperative movement related to accelerated development of the sector are:

i) Lack of trained personnel at all levels, especially the non-availability of accounting personnel and suitably qualified secretaries and managers at the primary societies.

ii) Lack of audit and supervision personnel at Headquarters and in the Districts - many societies have incomplete accounts and inadequate supervision by department staff has led to misappropriation of funds at Societies.

iii) There is no established levy system to finance the crop marketing operations of primary societies - handling, shrinkage, storage etc. and no funds are available to provide the necessary infrastructure required for crop marketing at the primary societies.

iv) Because of inadequate accounting and credit procedures primary societies are becoming indebted to CCU for inputs supplies.

In summary, it can therefore be said that the Cooperative movement has now reached the stage where it will either progress or stagnate depending on whether timely corrective measures will be undertaken.

IV. DEVELOPMENT CONSTRAINTS, PROGRAMMES AND EXTERNAL ASSISTANCE

1. Problems and Major Constraints to Rural Development

Some of the major problems facing the rural sector have already been mentioned above. However, they are discussed below and this Section is followed by a brief description of the Third Five-Year Development Plan - 1978-82, and that, in turn, by a description of Government's programme for coping with these obstacles to development

1.1 Overgrazing and its Consequences

Swaziland is reportedly the most densely stocked country in Africa with an average density of one livestock unit per 1.6 hectares in 1977. Grazing density on the 829 thousand ha SNL grazing area was one animal unit per 1.37 hectare and 4.57 hectares per animal unit on the 410.5 thousand ha TDL grazing area. According to the latest statistics, there are about 660,000 heads of cattle in the country and this herd is growing at a rate approximating 2.5% from 1978 to 1979. The number of cattle fell from 1979 to 1980, but this was due to special circumstances.

As is well known, the Swazi is by culture and tradition a cattle oriented person. Not only are cattle used as the lobola, or bride price, but if the issue would need to be given any greater emphasis then it could be that when his Majesty the King wishes to speak to the Swazi National Council he does not do so in the nation's modern parliamentary building but rather in one of his cattle kraals.

An approximation of what the actual carrying capacity of the country is was recently carried out within the Ministry of Agriculture and Cooperatives using land-capability maps and other data. It was found that under ideal conditions, thus guaranteeing a sustained yield of livestock, the country could support 440,000 cattle units. Thus, the country is approximately 50% overstocked. This is also evidenced by the actual stocking rate in 1977 of one livestock unit per 1.6 hectares as against a recommended rate of 2.95 hectares per livestock unit.

The consequences of this overstocking are widespread. Important areas of the country have eroded to such an extent that their carrying capacity has been reduced to very low levels. In fact, it is not uncommon in certain areas to remove cattle before they perish. Reservoirs are often silted up prematurely because of the overgrazing on the upper reaches of dams, rivers are loaded with precious top-soil thus lost forever to the country. Because of the practice of communal grazing, especially during the winter months, crop land cannot be given an early ploughing or land otherwise cultivated, thus impeding growth in agricultural production. Further, given the nearly complete lack of individual and group control relating to the number of animals that can be spaced under the communal system, it readily gives way to a "bigger thy neighbour" attitude in which there are no incentives, to the individual at least, to consider the consequences of overgrazing.

The effect on the national herd is also apparent. The calving rate is in the neighbourhood of 35% (low by any standards) and shows a downward trend. In addition each year over 40,000 head die as a result of poor or inadequate nutrition and exposure. Indeed, it can be stated that to a large extent, the cattle on the Swazi Nation Land are existing on a Malthusian fringe in which any adverse climatic phenomenon has a severe and radical impact on the well-being of the herd.

It should be noted here that it is primarily on SNL that the growth in livestock numbers is taking place; conversely, numbers are diminishing on TDL. However, the overall, or combined effect, was a growth of approximately 2.5% in 1978/79. The situation is further aggravated taking into consideration that an animal unit requires approximately the same effective (or equivalent amount of land for subsistence as does a human. Thus in effect there is an approximate compounded increase of more than 5.5% on available land based resources. In 1947, His Majesty issued a decree relating to overstocking with the provision of compulsory destocking. However, this decree has seldom, if ever, been exercised.

In the Second Five-Year Development Plan (1973-77), a major objective was to increase the off-take (slaughter, export etc.) of the national herd from 9 to 15% within the time frame of the plan. To help accomplish this FAO/UNDP assistance was sought (SWA/72/014 - Livestock Production and Extention - to be discussed below). However, the country is now in its Third Five-Year Development Plan and the figure of 8.5% annual off-take continues to plague the country, whereas a 12% off-take as recommended in the last plan, would at least maintain the "status-quo".

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1.2 Water Resources

Attention is oftentimes drawn to the fact that because of the geographic setting of Swaziland the country has little opportunity to escape from its overwhelming economic and social dependence on South Africa, and to a lesser extent on Mozambique. However, nowhere is this uneviable situation more apparent than in the case of vital water resources that must be shared by all three countries. The country has five major river systems all generally flowing eastward into Mozambique. From north to south they are the Lomati, Komati, Mbuluzi, Usutu and Ngwavuma. Of these only the Mbuluzi and Ngwavuma rise in Swaziland, the others having their headwater in South Africa. All five streams, however, flow into one or the other of the two countries.

Thus, all streams have international implications and they are therefore the object of on-going negotiations. Given the pressing problems facing South Africa arising from the petroleum boycott as well as the need to feed its own populations, that country could well use nearly all the water flowing in the streams that later are necessary for downstream Swaziland and Mozambique. Also, given the new development policies of downstream Mozambique, including the extensive plans to develop irrigation for food production in the Maputo basin and the need for additional water from the City of Maputo, that country too has need for additional water--which, again, would be at the expense of one or both of the upstream countries.

Swaziland, therefore, finds itself as the smaller country caught in between its two larger neighbours. It is known, however, that Swaziland's development potential cannot be realized without a significant expansion of its area under irrigation. At present it is estimated that there are some 42,500 has. of land under irrigation. However, in a recent survey carried out by the US Corps of Engineers (made available through US/AID) it has been suggested that if the status quo concerning apportionment of waters is not disturbed too much, an additional 243,000 has. of Swaziland could be placed under irrigation. To assure itself that when the time comes there will be adequate water for irrigation, the Government has created a three-man Joint Permanent Technical Committee for the purpose of entering into negotiations with similar committees created for the same purpose in the other two countries. The OPAS Officer SWA/78/021, Director of Research and Planning, is a Member of Swaziland's JPTC.

To many observers, the extension of irrigated agriculture provides the only remaining viable solution for coming to grips with the problems of low production (lagging behind population growth rate), unemployment and social disorders.

The US Corps of Engineers, in their study, has estimated that approximately two on-farm jobs would be created with each additional hectare placed under irrigation. In addition, they also estimated that two off-farm jobs would be created for each on-farm job. Thus, a total of six jobs would be created for each additional hectare placed under irrigation--assuming, of course, that consideration is given to the employment of labour intensive rather than capital intensive, patterns of development.

1.3 The Lack of Adequate Marketing Infrastructure

The absence of a marketing system to service the needs of the small Swazi farmer is considered as an impediment to achieving increased crop production on SNL and often frustrates the efforts of extension staff in advising farmers to increase their crop production. Under the RDA programme investments in facilities - Marketing Depots and Farmers Sheds - have been made or are planned for. However, the absence of a crop marketing or procurement system to utilise these facilities to service the small Swazi farmer means that the farmer's access to market outlets for his crop surplus is still restricted.

Whilst farmers producing cotton and tobacco are able to dispose of their crops without too many problems, the farmer producing maize, vegetables, pulses etc. is unable to easily dispose of his surplus as no established crop procurement system presently exists to handle these crops.

Two national co-operatives - the Swaziland Cotton Co-operative Society and the Swaziland Co-operative Tobacco Company - are involved in cotton and tobacco marketing respectively. The activities of primary co-operative societies in handling these crops (except for Matsanjani) tends to be generally very limited with only ad-hoc assistance provided by primary societies to their members. Co-operatives handle maize marketing only on an ad-hoc basis.

Marketing activities by the Central Co-operative Union, District Unions and primary societies basically focus on the supply of inputs to farmers with only peripheral attention being given to the marketing of outputs (crops). Until a national marketing system is established through which the co-operative tiers can operate and act as agents for, there is little likelihood that co-operatives can play a more meaningful role in the marketing of maize, vegetables and pulses. Cotton and tobacco have national marketing organizations and it is hoped that primary co-operative societies will, in future, play a more active role in procuring crops from their members to supply these national organisations. However, more assistance in the form of management, finance and audit and supervision services, as well as in training, will have to be given to the co-operatives at all levels if they are to be in a position to provide basic marketing services to their members in the future.

1.4 The Maize Shortfall

His Majesty's Government has continuously stressed the desirability of the country becoming self-sufficient in its basic staple - maize. This objective has also been included in each of the Five-Year Development Plans prepared for the country. Yet, if anything, the gap between total consumption and production is widening.

It is estimated that the population of Swaziland consume about 125,000 tonnes of maize or maize products annually. Of this Swaziland over the years has normally been producing around 100,000 tonnes ($\pm 10\%$) and importing the remainder from South Africa. Marketing of locally produced maize is either done through the Swaziland Milling Company or traded internally in a semi-barter system. However, the bulk of local production is for consumption by the producer himself, i.e. subsistence. That which is imported is usually in the form of grain maize or maize meal and is largely for disposal in the retail outlets of the major towns.

The price offered the Swazi farmer is determined on the basis of South African producer costs plus the additional charges of importing it to Swaziland. Theoretically, prices set in Swaziland are such that a buyer would be indifferent whether he obtained South African or Swaziland produced maize.

It may be noted that as Swazi farmers have started making the transition from subsistence to cash farming they have been quick to realize that in the majority of cases there are more remunerative crops to grow than maize (although he may continue to grow maize for his own subsistence). He is therefore, more likely to grow cotton or tobacco for which there are efficient marketing schemes available and which give him better returns. In case he needs more maize, he can buy what he needs with his cash surplus. Consequently, total production is decreasing while, simultaneously, the market demand is increasing because of a combination of increasing urbanization and a rapidly growing population. Thus, the gap between total consumption and local production is increasing and Swaziland is becoming progressively dependent upon South Africa for its basic staple.

1.5 Land Tenure

It is often argued that the present land tenure system on SNL serves as a possible constraint to agricultural development in Swaziland. The discussions are centered around seven issues: low production, security of tenure, overstocking, fragmentation, credit, disincentive to youth and fencing.

Some landholders continue to cultivate in a fashion adequate only to retain their rights to the land, even in conditions in which they could produce high yields and larger total output. In some instances farm households may simply maintain a presence at the homestead with at least one family member tilling the soil merely to retain usufructuary rights to the land. From a productivity perspective this is undesirable, but from the perspective of the homestead this is the logical and preferred economic choice. While the off-farm wage employment opportunities are available, only a small proportion of farm households - with land and labour resource advantages - will find it to be economically rational for them to produce crop surpluses for sale.

In practice, individuals are very seldom deprived of their lands, but the lack of security of tenure is thought to have acted as a constraint to investment in land development (fencing, planting trees, etc) by the farming community on SNL land.

Communal ownership of grazing lands has contributed significantly to the present problem of overstocking in the rural areas - for the individual, grazing area appears to be unlimited. Furthermore, the individual's incentive to improve pasture is limited since all would share equally in the benefits of his investment.

Within the homestead group the family head has the authority to re-allocate his allotted area of arable land to members of his household.^{1/} This process leads to arable land fragmentation on the death of the family head - a problem which is likely to become more serious in the future as available arable land for expansion becomes a limiting factor.

Farmers cannot pledge land as collateral for loans from SDSB as they do not own it; cattle is the only practical collateral for a large majority of SNL farmers. Those who own no cattle are therefore excluded from credit at present. Moreover, the practice of using cattle as collateral encourages the accumulation of cattle and hence adds to the Nation's overgrazing problem.

The land tenure system probably acts as a disincentive to young farmers. Land is only allocated to the homesteads of a married man. Unmarried men and women are thus excluded from holding land in their own right for the purpose of cultivation.

After harvest, ploughed land with standing crop residues reverts back to communal use and the community stock grazes without hindrance. This has in the past impeded fencing of arable land, except around the homestead. It also means that farmers are unable to plough and plant crops on their arable lands until the community as a whole agrees to the cattle being moved off. This leads to untimeliness of crop operations, and consequently to low yield.

In conclusion, it can be said that while changing the land tenure system to one of freehold tenure might reduce the above detrimental effects to improved agricultural production, it would undoubtedly have drastic social and political consequences. However, there are some indications that a form of limited lease-hold tenure pattern is currently being considered, but as of this writing no further information is available

^{1/} This applies mainly to polygamous households where the household head may allocate individual plots to each wife.

1.5 Manpower

Swaziland has serious shortages of agricultural manpower at senior, intermediate, and field staff levels. Many senior ministry posts are filled by expatriates; vacant posts and insufficient staff at intermediate levels curtail the effectiveness of extension supervision. In addition there is a lack of field extension workers. The problems are exacerbated by competition for qualified staff from private enterprise and quasi-government institutions, including the Swaziland Development and Savings Bank (SDSB).

1.6 Population Growth and Migration

A large and expanding human population in relation to the available carrying capacity of the land, including population migrations, are giving rise to a serious imbalance in the economy and growth of the country. This together with related broad areas of uncertainty combine in presenting even greater difficulties to be overcome in the planning of national development, e.g., urban areas growing at an approximate rate of 10% due to internal migration/ ^{and} approximately 7,000 new job seekers per annum with only approximately 2,000 being absorbed into gainful employment. Other related manifestations of this generalized problem have to do with human nutrition, family care and the role of women in development (i.e., the ultimate tiller of the soil).

2. The Third Five-Year Development Plan 1978-1982

In order to attack the above problems and overcome the obstacles to development, Government has incorporated certain objectives and associated goals into its current five-year development plan. The principal objective for the agricultural sector over the plan period is a broad one, i.e., to enhance the quality of rural welfare and narrow the gap between the living standards of urban and rural populations. More specifically, Government wants to:

- (i) obtain self-sufficiency in basic staples and raise the levels of crop and livestock production and consumption of rural families; and
- (ii) reverse the stream of rural migration into the urban centres of Mbabane and Manzini which have been growing at an annual rate of approximately 10%.

Government has assumed that one of its primary responsibilities to accomplish the above is to assist the Swazi Nation Farmers in making the transition from subsistence to commercial and semi-commercial farming. Thus, the plan includes lesser objectives and goals of promoting marketing services and infrastructure, encouraging higher rates of cattle off-take, doubling the number of extension and field officers now servicing the rural folk, and extending urban type amenities and services to the rural areas.

3. Donor Assistance

Since independence, donor assistance has played a major role in promoting economic growth and development in Swaziland. Prior to 1973, the United Kingdom provided the bulk of assistance including grants and interest-free loans for development, as well as support to finance chronic budget deficits. This latter assistance spared Swaziland the necessity to resorting to deficit financing and also reduced the public debt burden the nation would otherwise have had to assume.

Since 1973, Swaziland has enjoyed budget surpluses enabling it to meet its recurrent costs and finance part of its capital expenditures. Nevertheless, Swaziland will continue to require donor assistance, foreign investment, and domestic borrowing to finance its development.

During the last few years, Swaziland has diversified its sources of foreign assistance. In addition to ODA, several bilateral agencies, including USAID and Swedish SIDA, as well as multilateral lenders, such as IDA, IBRD, ADB, and EDF, contribute to financing the government's capital budget.

A more detailed description and discussion of the Government's Development Programme together with external assistance is given below. Please note, however, that there are 34 separate budget items identifying externally financed projects within the jurisdiction of the Ministry of Agriculture and Cooperatives and a total number of items of 60. Thus, not all projects have been included, attention instead, being focused on the more important ones. An overall view is given in Annex 6 as taken from the Government's Budget and information from the yearly report on Development Assistance to Swaziland in Annex 7.^{1/}

^{1/} See also Chapter III Section 1.5 for comments on the budget of the Ministry of Agriculture and Cooperatives.

4. Government's Agricultural Development Programme

The primary mechanism for removing obstacles to the achievement of the Government's development objectives is the Rural Development Area Programme (RDAP) which, inter alia, has the specific target of doubling existing incomes within the RDA's during the plan period. The Programme is financed by the Government of Swaziland and several multi- and bilateral donors including ODA, ADB, EDF, USAID and the World Bank.

4.1 Background and History of RDAP

The Rural Development Areas Programme aims at tackling the problems of the less privileged population in rural areas. The first attempt was made in 1944 by an autonomous body known as "Native Land Settlement Board" (NLSB) whose primary aim was to provide land for settlement of 27,000 Swazi people living on European Farms.

Fifty thousand hectares of Crown Land were released and British grant funds were used to purchase 93,000 hectares of expatriate owned farm land. Legislation was then passed to control grazing and stock numbers, rotations, soil conservation and right of occupancy. However, in 1954 the NLSB was merged with the Department of Land Utilization and this resulted in a relaxation of controls and a general collapse of the programme.

Eleven years later (1965) a second attempt in the form of a Rural Development Programme was made. The overriding emphasis of this programme was on infrastructure e.g. roads, fences, dams ^{and} terraces. Little attention was given to increasing farmer incomes through crop and livestock farming. Worse still, the indigenous people were looked upon as spectators in that they were not fully consulted during the planning and subsequent implementation of the programme. Naturally this programme met the fate of its predecessor.

After independence (1968), the Government recognized the ill-conceived approach of the previous attempts of forcing development on the Swazi people, and it was against this background that the present Rural Development Areas Programme (RDAP) was started in 1970.

The present RDAP concept is basically an area focused extension programme. It aims to "improve" agricultural production and living standards within the traditional framework. No attempt is made to "transform" traditional agriculture through changes in land tenure and the like.

4.2 RDAP Planning and Implementation

Up to December 1976, the Rural Development Area Programme had affected 7% of the Swazi Nation Land. However, as from January 1977 it is being expanded to cover about 60% of Swazi Nation Land. It is hoped that in the plan period 1977-1982 about 196,000 people will benefit from the programme. The areas included in the planned development and the main characteristics of each area are given in Table 15.

4.3 Programme Phasing

There are three phases in the evolution of an RDA Programme namely:

- (i) The Planning Phase in which base data are collected and investment proposals for specific Rural Development Areas are prepared. However, this is always preceded by a project identification exercise undertaken by the communities themselves. In other words, the project is initiated by the community through the local Leadership i.e. chiefs and their committees.

In more specific terms traditional representatives assisted by Government field staff, meet to discuss preliminary infrastructural plans for the area. Simple land use plans are prepared delineating arable from grazing land, proposed grazing fencelines, access roads, areas to be terraced, irrigation areas, domestic water supplies, sites for resettled homesteads/families, sites for farm sheds etc.

Table 15: Rural Development Area Programme: Area Characteristics

	Maxi-Mini	Region	Total Area (ha)	Total Population	Homesteads (No)	Livestock Units	Av Holdings ^{1/} Per Homestead (ha)
Lubombo-Mpolonjeni	Maxi	Lowveld and Lubombo	98,588	27,770	2 964	25,001	2.7
Mahamba-Zombodze	Maxi	Middleveld	19,810	16,168	2 453	13,232	2.4
Mahange-Hluti	Mini	Middleveld	32,453	17,779	1,492	19,030	3.2
Bekinkosi-Mliba	Mini	Middleveld	27,232	14,154	1 736	18 587	2.3
Masala-Vikisijula	Mini	Lowveld	22,585	4,923	682	10 262	3.6
Nkambeni-Madlangampisi	Mini	Lowveld	27,702	5,075	1,006	13 059	3.0
Sandleni-Qolweni	Mini	Middleveld	38,350	17,620	1 250	17 008	4.5
Siphofaneni-Maphobeni	Mini	Lowveld	24,993	5,075	750	8,754	3.6
Siphocosini-Motshane	Mini	Highveld	19,070	7,655	1,063	6 019	1.8
Sithobela-Madulini	Mini	Lowveld	38,167	7,908	1,080	19,948	3.8
Northern	Maxi (UK)	Middleveld	14 571	14 700	1,430	12 000	3.2
Southern	Maxi (UK)	Middleveld	11,251	4,790	643	4 169	3.2
Central	Maxi (UK)	Middleveld	18,991	9,877	1,411	4 597	3.1
Mahlangatsha	Maxi (UK)	Highveld	22 510	5,500	573	8 000	5.5
Mayiwane-Herefords	Maxi (UK)	Middleveld	26,300	13 900	1,800	14 496	3.1
Ngwempisi	Maxi (UK)	Middleveld	32,775	16 650	1 634	17 135	3.3
Madulini-Mahlalini	Maxi (UK)	Middleveld	6 596	5,014	679	5 075	3.7
Ebulandzeni	Maxi (UK)	Middleveld	5,787	1,800	260	1 552	4.0
Total			487,732	196 358	22 906	217 924	

Note: 1/ Refers to arable land only. Grazing land is communal.

Source: World Bank, "Swaziland Rural Development Project Appraisal Report", 1977.

The "people's plan" is then taken to the Ministry of Agriculture and Cooperatives and other related Ministries for further scrutiny so as to ascertain the plan's technical as well as economic feasibility. Relevant adjustments are made where necessary until a compromise is reached between Government and community. The final agreed plan is then examined by the Central Rural Development Board. If the CRDB is satisfied that the people's wishes have been adequately reflected in the plan, technicians and the community may then proceed with the implementation.

- (ii) The Minimum Input Phase is restricted to introduction of a limited package of inputs and services e.g. supply of seeds, fertiliser and chemicals, construction of rural fertilizer depots, provision of marketing facilities, and development of domestic water supplies.

- (iii) The Maximum Input Phase is concerned with introduction of more intensive farming systems, land development and improved rural social services. Such improvements are based on detailed land use plans prepared during the first and second phases. Indeed, in the intensive input areas, the intensive components will only be implemented over a proportion of the project area at any one time. The remaining portion of the project area will therefore be in the minimum input phase. The RDA programme at the intensive (maximum) input level combines the process of physical reorganisation and rationalisation of land use with provision of improved services to farmers and resettlement of homesteads.

4.4 Major Components of the RDAP's Maximum Input Phase

4.4.1 Physical Works

In the case of the maximum phase, the plans provide for the consolidation of arable holdings on the most suitable soils and their separation from grazing areas. Homesteads are resettled where necessary so that they are adjacent to arable land.

The plans detail other infrastructural requirements such as roads and provides for appropriate soil conservation measures. An integrated approach to land development is then adopted wherein consolidation and conservation measures are carried out. By reducing fragmentation more efficient use of both land and labour is made possible and the cost of fencing and other improvements is reduced. Conservation measures provide a basis for the more intensive use of arable areas without endangering soil resources; given the rapid increase in the number of farming families and the existing high population density in the Rural Development Areas (RDAs), this is of particular importance.

Such physical changes are by Government considered of greater immediate importance than the introduction of tenurial changes. They provide the framework for increasing agricultural production and a basis on which changes can be made over time. The physical reorganization itself has major social implications; people are called upon to move and reconstruct their homes, to cultivate new plots and to contribute labour for the erection of fences and the construction of dams and roads and other social infrastructures as well as their subsequent maintenance.

It should be noted that the process of consolidation and resettlement only caters for existing families^{1/}. Criteria for allocation of farm sizes include the size of the family, industriousness of the family in farming activities, former size of the familyfarm plots and total land available. This process ensures that each family is given a plot or farm which is economically viable. In other words the process is only a stop-gap measure since it cannot possibly satisfy the demand for land in the face of rising population. During the process of soil conservation and resettlement access roads are installed. These are vital to the success of the subsequent development phase involving the provision of additional inputs and the establishment of primary marketing services.

^{1/} After resettlement and consolidation, land is reallocated by traditional leaders in the traditional way.

4.4.2 Crop Development

As already mentioned several constraints militate against higher production by small farmers. Nevertheless, the RDAP aims at intensifying production of maize, cotton, tobacco, groundnuts, rice, vegetables etc.

To alleviate the input supply problem, service centres (main depots), are being constructed in each project area. Each centre stores bulk supplies of fertilisers, seeds, chemicals and basic implements. Smaller farm sheds serviced by the main centre have also been constructed. All this has been an attempt to make agricultural inputs more accessible instead of having farmers travelling long distances to get basic farm requirements. The sale of agricultural inputs has increased appreciably since 1973. Roads are also constructed to facilitate shipment of the inputs to farmers. The handling and sale of the agricultural inputs is done by the farmers themselves through their Central Cooperative Union, District Cooperative Unions and Primary Societies.

The extension personnel to farmer ratio is being narrowed to 1:200. The programme is funding a training element of 40 agricultural Certificate Students per year. It is planned to double this output to 80 per year.

Under the programme, each project area has a tractor hire scheme initially run by Government designed to provide farmers with a service that will enable them to carry out their primary cultivations correctly. This is done because oxen, which are the main source of draft power, are usually very weak at the peak ploughing season (end of the dry season) due to lack of proper and adequate nutrition resulting from the general over-stocking of the grazing land as mentioned above.

There are presently six tractor hire schemes with an average of four tractors per project area. Farmers have not been charged the full economic cost of running the tractors. Since the commencement of operations in 1974, there has been a steady increase in the utilization of equipment.

Operating costs for the tractor hire schemes have increased over the last four years but the increase in utilisation has resulted in a reduction in the fixed cost per hour. The pools are showing a deficit, but after deducting costs which are applicable only to Government, present hire charges will allow a private contractor to make a profitable enterprise

of his tractor business. It is interesting to note that small private tractor owners who have been charging sub-economic rates have brought their rates up to the rates charged by the RDAP tractor schemes.

Government is also providing in-service training to small Swazi tractor owners in tractor operation, maintenance and record keeping. As a result one finds that more private tractors are now in running order and more farmers are getting a better service. It is hoped that the Government will eventually hand-over the tractor schemes to private contractors.

4.4.3 Livestock Development

Under the RDA Programme communal grazing land is supposed to be fenced off from the arable land. The grazing camps are then subdivided into smaller paddocks so as to allow rotational grazing. Up to 1977 about 600 km of fencing had been completed. The fencing is done by the various communities affected by the project.

It is doubtful, however, that fencing alone will alleviate the overgrazing problem. In fact, fencing may even aggravate the overstocking problem since livestock are now confined to graze in between the arable lands. So the starting point is limiting stock numbers. To do this, Government is assisting stock farmers to establish Group Ranches. These are block grazing areas which are fenced and have identifiable stock owners grazing their livestock in them. Each Group Ranch is supposed to have a Management Committee with a set of regulations governing grazing practices e.g. how long each pasture should be rested, maintenance of the recommended livestock units per camp, decisions on management/grazing fees, culling policies etc. Staff from Government can be co-opted as ex-officio members advising especially on technical matters. It is hoped that with adoption of this idea by large numbers of stock farmers, some collective responsibility in limiting stock numbers will be maintained. At the moment the group ranch idea has not yet taken-off and overstocking is still a problem in the project areas.

Livestock management practices are still very poor for most Swazi stock owners. Under the programme unwanted scrub bulls are to be castrated and "exotic" bulls (Brahman, Friesians, Simmentaler) or "improved" Nguni are introduced. Old stock are to be culled and sent off to Government Fattening Ranches after which they are sold to the Swaziland Meat Corporation.

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4.4.4. Dairy Promotion

It is estimated that an average of more than 90% of total milk sales are imported and in addition the local production is concentrated in the summer months (November to May), leaving a large import requirement during the period of May to November to meet the local demand for milk. The RDAP seeks to reverse this situation by establishing small dairy units for farmers.

At the moment, farmers are being encouraged to purchase exotic dairy cattle (Friesians) from Government Breeding Stations. The demand for these cattle has been high from farmers but Government has been cautious in supplying them since management of dairy cattle is still poor. Improved dairy cattle are not released by Government unless extension staff are convinced that enough feed (usually in the form of improved fodder crops) will be available for the cattle. A milk collection centre with proper cooling facilities has recently been established in one project area. This collection centre will accommodate surplus milk which cannot be absorbed by the project area demand.

4.4.5 Rural Services

The most popular component of the RDA Programme for rural communities is piped potable water for domestic use. Traditionally, women spend a considerable amount of their time collecting water for their families. The water is often obtained from open flowing streams or unprotected springs which are often infested with water-borne diseases. The RDAP provides materials and technical know-how for construction of clean pipe water for domestic use. Where possible, pumping is avoided and gravity fed supplies are installed. The construction and maintenance of these water supplies are done in conjunction with the Ministry of Health. It has been observed that community labour is more readily available for domestic water supplies than, say, for fencing. Where gravity systems cannot be used boreholes and water pumps are installed.

Funds are also provided for under the RDAP to strengthen rural health services through the Ministry of Health. In two RDA's, for instance, a clinic is being built and others are being improved to include maternity services. Ambulances are also being provided to serve rural communities.

The emphasis is on preventive health education against prevalent diseases like gastro-enteritis and malnutrition.

Rural Education Centres are also being constructed under the IDA financed project to provide both adult education and specialized training particularly for school drop-outs. Since most of the young children will be released from herding cattle as a result of the fencing programme, the need for more primary schools is apparent.

4.4.6 Problems of Implementation

Although the Rural Development Area Programme is directly administered by the Ministry of Agriculture and Cooperatives, other Ministries and Institutions also have direct and indirect interests in the programme because of their activities in the project areas. All this brings about problems of co-ordination. Government has set up a co-ordination machinery by establishing committees of Ministries/Institutions from Cabinet to field staff levels including the local communities. However, committees in themselves cannot ensure proper effective co-ordination. Ministries and institutions need to realise that the target is a common one i.e. the improvement of the welfare of poor farmers in the rural areas. Unless these institutions speak with one voice for the betterment of the farmer, there will always be problems.

Up to 1976, major financiers of the programme have been the Swaziland and British Government with USAID providing support services (heavy machinery). From 1977, new loans of about E25 million have been negotiated to expand the programme from about 7% of Swazi Nation Land to about 60%. These loans involve three organisations (ADB, IBRD and EEC), in addition to the existing three, and these financing organizations all have different sets of regulations and the Swaziland Government has had to adjust to all of them.

There is no doubt that local participation in planning and implementation is the hall-mark for success of the programme. However, this is not always obvious to Government and other financing organisations who usually want quick and tangible results, as set out in the original project documents. Donors have noted with great concern that the RDAP is failing to achieve its production targets. Uptake of cotton and tobacco has been disappointing in all RDA's, and although uptake of hybrid maize is higher than anticipated

production of maize is static and marketable surpluses remain low in most areas. Hybrid maize apparently is not adopted for commercial reasons as envisaged in the plan documents but more for food maintenance purposes. In addition, performance on irrigation schemes is generally low and the cattle off-take rate is declining or static in most areas. Finally, it appears that the programme is labour releasing rather than labour absorbing.

The above results are the more disappointing to donors as the infrastructural programme - although with some delays and problems in certain aspects - is being carried out relatively successfully.

It therefore appears that the RDAP is being implemented under a number of constraints not originally foreseen. Consequently, either the objectives of the RDAP must be redefined or the constraints removed. In the former case donors must accept that the RDAP is an infrastructural programme to establish a foundation for production improvement when the constraints no longer exist. In the latter case, constraints must be identified and appropriate action taken to remove them. Such action is underway in the areas of marketing, research and extension. However, it is yet to be seen when necessary changes in the structure of the Swazi society and the socio-economic environment of the small-scale farmer in addition to being clearly identified can be implemented under present social and political conditions (cf Chapter I, Sections 2 and 3). Only if this happens can the production goals and other broader objectives of rural development be fully realized.

5. Activities other than the RDAP

5.1 Activities of Agencies Other than FAO

Besides the RDAP, a number of non-FAO activities are of interest to development of the agricultural sector. However, Annex 7 gives a complete list of all external assistance to the Agricultural Sector in 1978.

5.1.1. Dairy Development

The Canadian International Development Agency (CIDA) is assisting Government with a dairy development project. The project which became operational in 1977, has a duration of six years and it covers production, processing and marketing of milk. The total donor contribution amounts to US \$ 3.6 million and the Government contribution is estimated at US \$ 1.6 million.

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A dairy multiplication farm at Malkerns has now reached an advanced stage of preparation. Buildings have been completed and all equipment received. The farm was stocked in July 1978 with purebred Friesian calves which are being bred for insimination. The first calvings have taken place and distribution of fresh cows issued from present stock will start in early 1982. It is expected that 120 females will be produced yearly of which about 70 will be sold to farmers. Credit at 6% per year is available from SDSB for this purpose.

In addition to distributing purebred Friesian cows, artificial insimination will be developed to the effect of upgrading local breeds. Semen from Canada has already been received and specialized staff of the project work in close cooperation with Government Officers.

A feed mill and a milk processing plant at Matsapha have been completed under the project. The feedmill with a yearly capacity of 3,000 tonnes makes use of locally available commodities, such as molasses, alfalfa, cotton seeds, citrus pulp etc., other basic products are being imported. The new milk processing plant has a capacity of 16,000 litres per 8-hour shift and produces liquid milk, fermented milk butter, ice-cream and cheese.

5.1.2 Development of Cooperative Movement

Technical and financial assistance has been provided by the United Nations (ILO/SIDA) and USAID to the Cooperative movement. A Cooperative Development Centre has been established with ILO/SIDA assistance and USAID has provided a team of three experts to staff management positions at CCU as well as additional three to serve as Area District Managers.

5.1.3 Women in Development

This project (SWA/75/R40) executed by UNDTCD is intended to

- i) Enable women to engage in income generating and commercial activities.
- ii) Establish day-care centres.
- iii) Introduce new technologies
- iv) Upgrade the technical skills of women through training.
- v) Train women for future rural development programmes.

The project initiated in 1975 is being implemented satisfactorily, but there are no counterparts to international personnel. The current

funding of the project ends in December 1980, but possibilities for extending the project are being explored.

5.1.4 Water Resources Development

The US Corps of Engineers (made available through USAID) in October 1979 prepared a Review and Analysis of Water Resources Planning and Development in Swaziland. The report included the Terms of Reference for a long-range comprehensive water resource plan, a draft outline of a near-term plan and Terms of Reference for a study to provide the hydrologic data and analysis necessary for future planning. The plans are now being prepared by the US Corps of Engineers and the hydrology study has been finalized.

In addition to the above mentioned assistance FAO has provided assistance through TCP-projects (cf Section 5.2).

5.1.5 Cropping Systems Research and Extension Training

A large scale USAID supported project in Cropping Systems Research and Extension Training is under preparation. The objectives of this project will be to identify more profitable cropping systems suited to small farmer conditions, enable the Information Section of the Ministry of Agriculture and Cooperatives to provide support to Agricultural Extension Field Officers, and strengthen the extension training programme of the Ministry. It is expected that some 10 experts will be provided for at least two five-year phases and a third phase may become a reality should project objectives not be met within the first 10 years. The project will work in close collaboration with SWA/78/015 - Research for Rural Development.

5.2 Status of the FAO Programme

With the exception of providing an OPAS Officer to serve as Director of Research and Planning in the Ministry of Agriculture and Cooperatives, FAO is not otherwise directly involved in the RDAP which as mentioned above is the main vehicle for achieving the Government's development objectives in the agricultural sector. However, FAO has addressed itself to some of the basic obstacles to rural development in Swaziland, and in the Sections below terminated, ongoing and pipeline projects are discussed.

5.2.1 Terminated Field Projects

Five UNDP/FAO projects terminated in 1978; a brief discussion of each is given below.

SWA/72/014 - Livestock Production and Extension:

This project contributed to the creation of Fattening Ranches, the introduction of exotic animals to upgrade the local Nguni stock, initiated a dynamic programme of bush clearing and trained local staff at all levels. However, insufficient attention was given to the major constraints impeding the realization of a modern livestock/beef industry in Swaziland which are culturally rather than technologically oriented. This project was severely handicapped as a result of the UNDP financial crisis in 1976 in which half of the FAO personnel was lost.

SWA/72/015 - Crop Production and Extension:

This project was intended to significantly expand the production of selected priority crops and assist in strengthening and developing the existing institutional support needed to service farmers through training of field officers and counterpart officers. The training objective was met to a satisfactory degree. However, again partly due to the above mentioned UNDP financial crisis the production objective was not met. It is worth underlining that here again the institutional and social framework seems to be major factor preventing agricultural advance.

SWA/73/004 - Dairy Industry Adviser:

This project provided advice to Government on the formulation of a dairy development plan and strategy of the dairy industry besides providing advisory services to the Dairy Board. The Adviser was instrumental in obtaining Canadian Assistance in the form of the US\$ 6 million on-going dairy development programme. However, one of the immediate objectives of studying ways in which the Dairy Board could eventually transfer ownership of its collection, processing and distribution facilities to that of a Farmer's Cooperative was not achieved as such a study was considered to be premature and therefore not appropriate by Government.

SWA/75/009 - Dairy Factory Manager:

This project supplied operational assistance to the milk plant which was built by private enterprise but purchased by the Dairy Board in 1974. The Dairy Factory Manager turned over the project to an Associate Expert in late 1977, who was able to carry the project through to a successful completion. A counterpart Factory Manager has since taken over the responsibility and a number of factor operatives have received job training.

SWA/75/012 - Senior Agricultural Economist:

With SWA/75/012 and the subsequent creation of the Department of Research and Planning within the Ministry of Agriculture and Cooperatives, the planning and programming capacity of the Ministry has been considerably strengthened. This is so particularly in the areas of project preparation, budgetting, project scheduling and monitoring and in assessing policy alternatives for promoting small scale agriculture and food production. Perhaps the most important contribution is in the area of in-service training of local staff and the localization of the post of Senior Agricultural Economist. Continuity of assistance to the Ministry is secured through SWA/78/021 - Director of Research and Planning.

One PFL-project was terminated in 1979.

PFL/SWA/001 - Reduction of Post-harvest Losses:

This project was carried out in March to May 1979 under FAO's Prevention of Food Losses Programme. The consultant together with local authorities, drafted a project document for PFL/SWA/002 - Strengthening the Food Conservation and Crop Storage Section, which project is now being implemented.

An MMP-project implemented in connection with GCP/SWA/014 (SWE) has been completed.

MMP/SWA/001 - Establishment of a Home and Village Technology Centre:

This project funded by FAO's Money and Medals Programme has successfully financed the installation of a home and village technology centre at the Faculty of Agriculture Campus at Luyengo, and the centre is now being used in connection with the activities of the Faculty.

A number of TCP-projects have been carried out over the past few years.

TCP/SWA/6701 - Improvement and Processing of Hides and Skins and
Related Animal Byproducts:

The high density of the cattle population of Swaziland affords considerable potential for the development of a hides and skins industry. Government requested FAO for a two-months consultancy carried out in March to May 1978, and the proposed follow-up project TCP/SWA/8903 is now being implemented.

TCP/SWA/6702 - Preinvestment Study for Marketing of Horticulture Produce:

The Government is acutely aware of the problems in marketing vegetables in Swaziland and requested FAO to draw up a project to develop a perishable marketing infrastructure. A two man mission was carried out in January and February 1978, and a project proposal formulated. The proposal was further refined by an FAO/ADB Mission to Swaziland in October-November 1979, and a donor has since been sought for. A possibility presently being considered is to include this programme in a larger package resulting from an IFAD-Mission in May 1980. However, the IFAD Mission's Report is still underway.

TCP/SWA/0001 - Reconnaissance Level Feasibility Study for Irrigation

The objective of this project, which was implemented in May 1980, was to prepare a reconnaissance feasibility study of the multi-purpose (hydro and irrigation) potential of the so-called Lupholo/Ezulweni site, where a single purpose hydro project was underway. The analysis facilitated Government's decision-making process as regards the development of the site, and other recommendations (mainly dealing with the irrigation of an additional 14,000 has. in the Mapobeni, Big Bend North and Big Bend South areas in the Lusushwana Basin (part of the larger Usutu Basin) have been accepted by Cabinet as a major priority for detailed investigation and planning.

TCP/RAF/0003 - Training in Agricultural Project Analysis:

This project carried out in August 1980 is the first phase of FAO assistance to the Government of Botswana, Lesotho and Swaziland in the field of in-service training on agricultural and rural development project analysis. The first phase was exploratory in nature and the report is now awaited.

5.2.2 On-going Field Projects

After having encountered problems in getting the implementation of a number of projects started in 1979/80, it now appears as if the FAO Programme is moving in the right direction. All posts in the three UNDP/FAO projects are filled with the recent arrival of two experts, and the same is true in the two important multi-bilateral projects except for one expert, where a candidate has been cleared. An expert in a PFL-project arrived in October, and the post of an Associate Expert is expected to be filled soon. Furthermore a candidate for a one-year preparatory TCP-project has been identified and has been cleared. He is available with short notice. Finally both a UNFPA/PBFL project and the WFP activities are being implemented. A total of 24 experts or Associate Experts are in post in addition to one WFP Deputy Representative; and two Experts and two Associate Experts are scheduled to arrive within the next few months.

The following three UNDP/FAO projects are on-going:

SWA/78/014 - Assistance in Marketing for Rural Development:

The project document was signed in September 1979 and full-scale operations were initiated in October of that year. Under the agreement UNDP/FAO provides a Senior Marketing Adviser and an Associate Expert up to the end of 1981, in addition to a number of consultancies, fellowships and necessary equipment. The project has now established a Marketing Advisory Unit within the Department of Research and Planning in the Ministry of Agriculture and Cooperatives including a marketing intelligence and data retrieval service. Monthly bulletins covering fruits, vegetables and livestock prices, supply and demand conditions are produced; and the project has been instrumental in initiating a number of programmes and studies within the area of marketing and food security.

SWA/78/015 - Research for Rural Development:

The project document was signed in December 1979 and full-scale operations were initiated in September 1980. Under the agreement UNDP/FAO provides a Technical Adviser and a Socio-Economic Adviser for 3 and 2 years respectively, in addition to a number of consultancies, fellowships and necessary equipment. The project is based within the Research Division in the Department of Research and Planning of the Ministry of Agriculture and Cooperatives and is intended to restructure the research programme

of the Division and provide sociological/socio-economic input to researchers. Such information is to be based on grass-root findings starting with the rural family as the basis from which inter-disciplinary research programmes for rural development can be formulated.

SWA/78/021 - Assistance to Agricultural Research and Planning:

This project is the continuation of SWA/75/012 - Senior Agricultural Economist. The project provides an operational expert for 3 years to the Ministry of Agriculture and Cooperatives to serve as Director of the Department of Research and Planning, which was created as a consequence of SWA/75/012. In all, there are approximately 300 employed in the Department, and in addition to his duties as Director the OPAS Officer has undertaken a number of ad hoc assignments (including being a member of the Swaziland water negotiating team). The Officer also serves as FAO Officer-in-Charge, and in this capacity he has an Associate Expert, who is based in the UNDP Office, assigned to him.

Besides the above mentioned UNDP/FAO projects, two multi-bilateral projects, which are of major importance in terms of personnel and other resources are on-going:

GCP/SWA/005(DEN) - Development of Quality Seed Production:

This project located at the Malkerns Research Station but reporting to the Director of Agriculture became operational in November 1978 following the arrival of the Project Leader and two Associate Experts. The planned duration of the project is 4 years; but a 2-year extension was discussed during a tripartite review involving DANIDA, UNDP/FAO and the Government. It is hoped that the extension will be approved without delay. The objectives of the project are to develop a viable seed industry and a national seed quality control service so as to assure an adequate and satisfactory seed supply from local sources. Considerable progress in establishing a seed testing laboratory, preparing certification regulations and undertaking seed testing activities has been achieved. In addition, the project produces and processes hybrid seed maize and seed potatoes and a seed processing plant has been completed. Only 2 out of 10 planned counterpart posts have been established and filled, and this bottleneck must be removed soon if project objectives are to be met within the foreseeable future.

GCP/SWA/014(SWE) - Assistance to the Faculty of Agriculture:

This large project continues to provide operational assistance to the Faculty of Agriculture, which was originally begun under TF/SWA/6,7 and 8 in the form of at present 8 Experts and 3 Associate Experts, fellowships and equipment. The project includes Home Economics, Agricultural Education, Animal Production and Health, and Crop Production. The present Phase terminates at the end of 1980, but a Phase II extending the project to mid-1983 has been successfully negotiated with SIDA, which signed the Plan of Operations in October 1980. No major problems are encountered at present and the counterpart situation is gradually improving although still a problem in fields requiring lengthy specializations.

One PFL-project (with an Associate Expert from GCP/RAF/114(SWE) - Rural Structures in East and Southern Africa attached to it) is being implemented:

PFL/SWA/002 - Strengthening of the Food and Crop Storage Section:

This project was formulated under PFL/SWA/001 - Reduction of Post-Harvest Losses. FAO supplies a Post-Harvest Expert for two years in addition to various equipment, two depot stores and other constructions. As mentioned above, the regional project GCP/RAF/114(SWE) - Rural Structures supplies an Associate Expert, who is yet to arrive. The objectives of the project are the following:

- i) Promote overall coordination of post-harvest activities directed at the reduction of losses of unprocessed durable agricultural produce (especially maize, pulses and groundnuts).
- ii) Conduct surveys and fact-finding to obtain necessary data to reduce these losses effectively.
- iii) Take part in the Government's extension programme by extending methods to reduce food losses.
- iv) Advise the Government on a national grain storage network and related activities.
- v) Assist the Government in formulating follow-up projects and requests for assistance.

The project is located at the Malkers Research Station within the Grain Storage Section which is supposed to change its name to the Food Conservation and Crop Storage Section, and which reports to the Director of Agriculture.

Three TCP-projects are being implemented:

TCP/SWA/8801 - Preinvestment Study for Processing of Tropical Fruits:

A preinvestment study for the processing of citrus and guava juice and jelly on which a national processing facility could be based was carried out under the TCP-Programme in January 1979. The technical and financial feasibility of establishing a guava processing facility was identified. The final report recommends that approximately 500 tonnes of fresh fruit could be processed during the three months harvesting period and a nucleus farm producing the major share of this amount is also recommended.

However, Government follow-up on the proposal has so far been hampered by unavailability of essential irrigation equipment for the propagation of the guava seedlings. In July 1980, it was therefore decided to use TCP-Funds for this purpose, and the propagation is now being undertaken.

TCP/SWA/8902 - Advisory Services in International Water Law:

The FAO Consultant visited Swaziland in August 1979 and provided advisory services in the field of international water resources law. The Adviser i.a. reviewed existing agreements and their legal implications for Swaziland and worked closely with the Swaziland water negotiating team, which was preparing for negotiations with the South African Delegation. A second visit may become necessary in 1981, but the project is presently being closed, so this visit would be charged to a new project.

TCP/SWA/8903 - Hides and Skins Improvement:

This one-year preparatory project under which FAO will provide a Hides and Skins Specialist, some fellowships and necessary equipment is yet to become operational. However, a candidate for the expert post has been cleared. The project, formulated under TCP/SWA/6701 - Improvement and Processing of Hides and Skins, will establish a Hides and Skins Improvement Service under the Department of Veterinary Services in the Ministry of Agriculture and Cooperatives. This should lead to a higher degree of awareness of quality standards and to the introduction of a grading system and improved training. In addition, a follow-up project will be identified and formulated.

A number of regional projects cover Swaziland but only two are presently providing services directly:

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GCP/RAF/024 (DEN) - Regional Dairy Development and Training Centre, Naivasha, and GCP/RAF/114(SWE) - Rural Structures in East and Southern Africa.

A UNFPA/FAO-project is now in Phase II:

SWA/75/PO.2 -- Programme for Better Family Living

This project is designed to raise the level of rural welfare by educating families and communities through fostering an understanding of the relationship between family size, child spacing and family and community welfare. The project is conducting a series of workshops and seminars dealing with population growth, migration and related matters. The PBFL project will also obtain valuable socio-economic information based on sampling of the rural population. The project is financed by UNFPA and executed by FAO. The Project Document of Phase II (1979-1981) of the project has recently been approved but with a smaller budget than originally requested, i.e. US\$634,000. Two Experts, two Associate Experts, a number of fellowships and some equipment is being provided.

Two WFP-assisted projects are in operation:

646/Expansion - Assistance to Primary School Children and Vulnerable Groups:

This project, which was initiated in August 1977, has now been extended to the end of July 1982 and provides food aid in the form of corn soya milk, pulses, edible oil and dried skim milk. The objective is to improve nutrition among vulnerable groups and primary school children and counter the deficiencies of the traditional diet in order to increase the effectiveness of primary education and improve the quality of human resources.

637/Expansion - Institutional Feeding and Assistance to Secondary Day Scholars

This project, which was initiated in July 1979, is expected to be completed in June 1982. The objectives of the project are:

- i) To improve the nutritional status at schools, hospitals, training centres, children's homes, nursery schools and the Save the Children Fund Central Kitchen in Mbabane, by providing them with a more balanced diet;
- ii) to increase the effectiveness of secondary education by improving the nutritional status of secondary school day scholars through the provision of a mid-day meal; and

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- iii) to enable the Government to release budgetary funds from its expenditure on food for these institutions. The funds thus released would be used to finance the development of local food production in expansion of educational, health and social facilities. The project is an expansion of assistance provided by WFP over a period of six years in accordance with a Plan of Operations signed by the Government and WFP on 16 September 1970.

5.2.3 Field Projects in the Planning Stage

At present only the SWA/78/015 - Research for Rural Development project is in the official pipeline for the next UNDP Country Programming Cycle (1982-86). However, it has been proposed to extend this project further, and a number of other draft proposals cleared by the Ministry of Agriculture and Cooperatives are now under consideration by the Department of Economic Planning and Statistics (see Annex 8). Below is an outline of the draft proposals, but it is underlined that these are draft proposals which have not been cleared by the Central Planning Department or approved by UNDP/FAO.

1. Research for Rural Development (Phase II):

The project document for the first phase of SWA/78/015 - Research for Rural Development was signed in September 1979, and full-scale operations were initiated in September of the following year. In addition to a number of consultancies, fellowships and necessary equipment, and in accordance with the agreement, UNDP/FAO provides the services of a Technical Adviser and a Socio-Economic Adviser for 3 and 2 years respectively.

The project is lodged in the Research Division in the Department of Research and Planning of the Ministry of Agriculture and Cooperatives, and is intended to assist in the restructuring of the research programmes of the Division and provide a sociological/socio-economic input to the programme. Such information is to be based on grass-root findings starting with the rural family as the basis from which inter-disciplinary research programmes for rural development can be formulated. These activities have been initiated with Phase I, scheduled to terminate in September 1983, well into the Third UNDP Country Programming Cycle. However, it is now quite apparent that the sought for objectives will not have been achieved during the first phase and an extension lasting until the end of 1986 will be required. It is also envisaged

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that further inputs (including farm management economics and the continuation of sociological studies) will be needed, but these latter two disciplines will be provided through a USAID sponsored project in Cropping Systems Research, that will become operational by the end of 1982 and which is designed to cooperate with and support the UNDP/FAO project. Thus, only the Technical Adviser and supporting services need be provided by UNDP/FAO.

UNDP INPUTS

Technical Adviser	(39 mm)	US\$ 304,590
Fellowships	(2 for 15 mm each)	44,250
Consultancies	(2)	15,000
Official travel, reporting, etc.		15,000
	Total	<u>US\$ 378,840</u>

Note: Because Phase I of the project extends 21 months into the Third UNDP Country Programming Cycle (accounting for US\$ 158,320), total project costs during the Cycle will amount to (US\$ 158,320 + \$ 378,840 =) \$ 537,160.

2. Assistance in Marketing for Rural Development (Phase II):

The present phase of SWA/78/014 - Assistance in Marketing for Rural Development project will be completed in December 1981, and most of the objectives envisaged for the project are expected to have been fulfilled by this time. A Marketing Advisory Unit has been established in the Ministry of Agriculture and Cooperatives which has set-up a marketing intelligence service for crops and livestock and a data bank on marketing matters. The project, as envisaged in the project document for the first phase, has been focussing basically on surveying and assessing the marketing situation and problems confronting various crops, drawing up marketing improvement programmes and advising Government on an appropriate institutional framework necessary for the improvement of crop marketing and the promotion of crop production in the rural areas.

Arising out of the "spin-off" of the above achievements, it is both logical and opportune to expand the scope of project activities in a further 2½ year Second Phase so as to implement the earlier findings and recommendations, including the development of necessary institutions and programmes to service the needs of the small farmer in the Rural Development Areas.

Assistance is therefore required in the form of 3 experts: a Senior Marketing Adviser (already in post) who will concentrate on institutional development and marketing improvement programmes; a Credit Adviser to assess credit needs, advise on the expansion of credit and on ways to improve identification, disbursement and repayment of credit through the SDSB and the Cooperatives; and thirdly a Marketing Service Expert to engage in planning and improving crop and input procurement procedures, the dissemination of marketing information and planning and promoting the establishment of appropriate marketing facilities in the rural areas.

Funds for continued training of staff involved in marketing and credit management will also be required. In addition funding of support services will need to be continued.

UNDP INPUTS

Experts	(90 mm)	US\$ 509,180
Fellowships	(27 mm)	41,120
Supporting Services (Travel and Misc.)		<u>22,500</u>
		<u>US\$ 572,800</u>

3. Cooperative Development Adviser:

The Swaziland Government attaches a high priority to the development of cooperatives as a means of bringing services to the small farmer in the rural areas, to increase their involvement in the economic development of the country and commercialize the traditional subsistence farmer on Swazi Nation Land. Unlike in many countries there is no well established trading sector in the rural areas of Swaziland to provide that community with farm supplies and basic consumer goods nor to market their produce. The development of farmer and consumer cooperatives in the rural areas is meant to overcome these limitations and act as a catalyst in commercializing small farmer agriculture.

The Department of Cooperative Development was created in 1963; the registration of new cooperative societies, which at first progressed very slowly, increased rapidly in the 1970's so that by 1979, some 134 societies had been registered between 1970 and 1979. Of these, some 102 can be considered to be active. In the 1979/80 crop year gross sales of farm supplies made through the four District Unions amounted to E1.66 million of which

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E1.32 million were made on credit. Cooperatives presently handle approximately 30 percent of the local cotton crop and 100 percent of the local tobacco crop.

In 1979, the Department of Cooperative Development was transferred from the now defunct Ministry of Commerce and Cooperatives back to the Ministry of Agriculture and Cooperatives. The Department comprises Headquarters and field staff operating in the districts and the Cooperative Development Centre (CODEC) established with funds made available through Swedish Multi-bilateral Funds through ILO (SWA/73/011). CODEC provides the facilities for the training of Department staff and movement members in cooperative management and related subjects. The Department of Cooperative Development also provides guidance and direction to the Central Cooperative Union of Swaziland (CCU) through the field service officers, audit and supervision services, etc. CCU, an apex cooperative organization also has under it the four secondary unions (one in each District) and the aforementioned primary societies. In addition there is the National Cotton and Tobacco Cooperatives. The accelerated pace of development of the cooperative sector has brought with it numerous problems arising primarily in the areas of management, accounting, training and credit recovery. As such, the movement has now reached the stage where it will either progress or stagnate. The rapid development of cooperatives has also seriously strained the resources of the Department of Cooperative Development and there is an urgent need to replan the development strategy of both the movement and the Department itself so that adequate resources are provided in a coordinated and meaningful manner so as to ensure the continued development of the cooperative sector. The special role of cooperatives in the country's Rural Development Area Programme (RDAP) cannot be over emphasized as this programme constitutes the major vehicle of Government in carrying out its stated goal in the "Third National Development Plan" of assisting the rural farmer in making the transition from subsistence to commercialized basis.

Assistance is requested to provide the services of a Cooperative Development Adviser for 60 mm to assist the Commissioner of Cooperative Development in developing and implementing an appropriate strategy for strengthening the Department of Cooperative Development and cooperative institutions at all levels. Funds for at least five short term (e.g. 3 months) fellowships and supporting services such as official travel and reporting should also be provided.

Inter alia, the adviser would:

- i) Advise the Commissioner of Cooperative Development on all matters relating to the development of cooperatives.
- ii) Assist in the development of a programme for cooperative development at primary, secondary and apex levels.
- iii) Advise on relevant training schemes for all levels of the Department and Government.
- iv) Advise the Commissioner of Cooperatives Development on development management techniques to improve effectiveness of cooperatives at all levels.
- v) Advise the Commissioner of Cooperative Development on matters relating to the development and expansion of national (i.e. special crop) cooperatives.
- vi) Advise on ways and means of improving the disbursement and central extension of cooperative administered credit.
- vii) Advise the appropriate authorities on matters relating to the further development of the Department of Cooperative Development including its expanded role within the Ministry of Agriculture and Cooperatives.
- viii) Assist in the identification and preparation of projects relating to cooperative development for presentation to potential donors.
- ix) Advise on the appropriate financial structure, financial requirements and financing arrangements for the operation of viable apex, secondary and primary co-operative institutions.

UNDP INPUTS

One senior level Cooperative Management Adviser	(60 mm)	US\$ 427,200
Training	(5 fellowships, 1-3 months)	15,000
Supporting services	(travel, reports, etc.)	15,000
		<u>US\$ 457,200</u>

4. Assistance to the Development of Quality Seed Production (Phase II):

With financial assistance from Danish multi-bilateral funds, the Government of Swaziland in cooperation with FAO, in late 1978, set-up the first phase of the above project (GCP/SWA/005(DEN)), located at the Malkerns Research Station. Its principle objective was to assure an adequate and satisfactory seed supply from local resources. It is Government's wish that this project exercise an important role in promoting the successful carrying out of its Rural Development Area Programme through providing an adequate and sustained supply of quality seed developed for the particular requirements of the

country's small farmers. So far, the project has made considerable progress in inter alia, establishing a seed testing laboratory, preparing certification regulations and undertaking seed-testing activities. In addition, the project produces and processes hybrid seed maize, seed potatoes and a seed processing plant has been completed.

Professional staff provided through FAO consists of a Project Leader (P5) and two Associate Experts (P2)--one dealing with quality control and the other with production. Government is committed to provide the services of six professional officers of which only two have been employed so far due in part to the lack of suitably qualified candidates.

The original planned duration of the project was four years, but as a result of discussions held between Government, DANIDA and UNDP/FAO, there is reason to expect a two-year extension thus prolonging it through September 1984, at which time DANIDA would provide no further assistance.

By 1984, all necessary equipment will have been installed, all functions and routines established and production targets obtained. Nevertheless, due to the local staffing situation, the project will still need external assistance for at least another 27 months, or until the end of the Third UNDP Country Programming Cycle (1982-86) in order to assure that it can then continue under the complete control and direction of locally recruited staff.

Such assistance would consist of two Seed Technologists: one responsible for the production and maintenance of basic seed, seed control and certification, and legislation, and the other responsible for contract production of certified seeds, processing and marketing. Funds for at least two fellowships and supporting services such as official travel and reporting should also be provided.

UNDP INPUTS

Seed Technologists (2) (54 mm)	US\$ 402,020
Fellowships (2 three-month Fellowships)	14,120
Supporting services (travel, reports, etc.)	<u>15,000</u>
TOTAL	<u><u>US\$ 431,140</u></u>

As regards multi-bilateral projects it has already been mentioned that a 1981/83 Phase II of GCP/SWA/014(SWE) - Assistance to the Faculty of Agriculture was signed in October 1980. In addition, the result of negotiations with DANIDA for a 1982/84 continuation of GCP/SWA/005(DEN) - Development of Quality Seed Production is as mentioned above underway.

No TCP or PFL projects are presently in the pipeline; but it should be noted that the two ongoing projects PFL/SWA/002 and TCP/SWA/8903 are supposed to formulate follow-up projects, and that a considerable number of TCP-projects were implemented in 1978-80.

CPCL, FIAC and FSAS assistance for three projects in cooperation with project SWA/78/014 - Assistance in Marketing for Rural Development are in the pipeline:

ESC/CPCL/SWA/1 - Development of the Cotton Sector:

Assistance from the Commodity Policy at Country Level (CPCL) Programme is being sought to draw up a strategy for the further development of the Swaziland cotton industry.

Food Security Assistance:

Assistance from the Food Security Assistance Scheme (FSAS) to field a mission to draw up a food security plan for Swaziland covering food production, storage and marketing is underway.

Fertilizer Marketing Training Seminar:

This seminar which is expected to be requested by Government for implementation in January/February 1981 is being financed by the Fertilizer Industry Advisory Committee (FIAC).

6. Donor Coordination

In terms of overall development planning, there is no formal mechanism for coordinating donor assistance. However, donor coordination does occur at the programming and project levels.

The RDA Programme, for example, involves a number of bilateral and multilateral agencies who meet annually (August 31) to review an annual draft work programme prepared for the next fiscal year (April 1 to March 31). At the same time, these donors have the opportunity to share comments and make recommendations regarding future RDA Programme implementation. With regard to most other project activities, coordination is generally carried out on a less formal basis involving contact among Resident Representatives.

It would be desirable if a broader mechanism for donor coordination could be established at the overall development planning level. This might include a donor's conference, sponsored by the Government, as one of the initial steps in preparing the national development plan. This would be helpful to the Government in maintaining a realistic assessment of donors' interests and planned assistance. Another conference would also be desirable mid-way through the plan period to assess progress and make recommendations for strengthening programmes or shifting emphasis as appropriate. Closer coordination could also be facilitated by Government initiatives in encouraging more multi-donor projects and programmes.

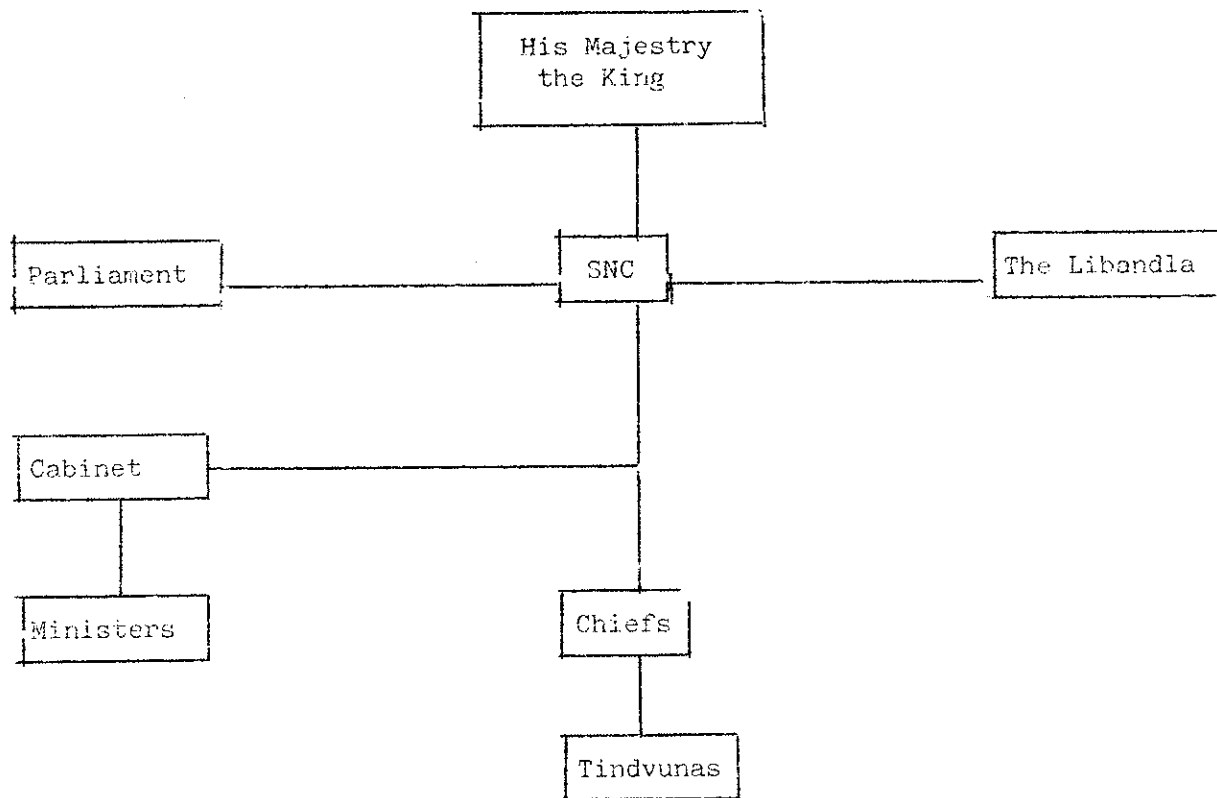
Still another possibility would be regular informal meetings of Resident Donor Representatives with Government participation which could be held on a monthly basis with an agenda circulated in advance.

Annex 1: List of Abbreviations

ADB	=	African Development Bank
BLS	=	Botswana, Lesotho and Swaziland
CBS	=	Central Bank of Swaziland
CCU	=	Central Cooperative Union
CDC	=	Commonwealth Development Corporation
CIDA	=	Canadian International Development Agency
CPCL	=	Cotton Programme at Country Level
CRDB	=	Central Rural Development Board
CSO	=	Central Statistical Office
DANIDA	=	Danish International Development Agency
DEMS	=	Division of Extra-Mural Services
E	=	Emalangi (plural of Lilangeni -- Swaziland's Currency)
ECA	=	Economic Commission for Africa
EDF	=	European Development Fund
EEC	=	European Economic Community
FAO	=	Food and Agricultural Organization of the United Nations
FRG	=	Federal Republic of Germany
GCP	=	Government Cooperative Programme
GDP	=	Gross Domestic Product
GOS	=	Government of Swaziland
IBRD	=	International Bank for Reconstruction and Development
IDA	=	International Development Association
ILO	=	International Labour Organization
IMF	=	International Monetary Fund
ITF	=	Independent Tenure Farmers
JPTC	=	Joint Permanent Technical Committee
MCC	=	Mennonites Central Committee
MPP	=	Money and Medals Programme
NLSB	=	Native Land Settlement Board
NNLC	=	Ngwane National Liberatory Congress
ODA	=	Overseas Development Agency (British)
OPAS	=	Operational Assistance
OSAS	=	Overseas Aid Service Scheme
PFL	=	Prevention of Food Losses Programme
RDA	=	Rural Development Area
RDAP	=	Rural Development Areas Programme
RDO	=	Rural Development Officer
RDC	=	Rural Development Committee
SBS	=	Swaziland Broadcasting Service
SDSB	=	Swaziland Development and Savings Bank (Swazi Bank)

SEB = Swaziland Electricity Board
SEDCO = Small Enterprises Development Corporation
SIDA = Swedish International Development Agency
SIEC = Swaziland International Education Centre
STBC = Swaziland Television and Broadcasting Company
SNC = Swaziland National Council
SNF = Swazi Nation Farms
SNL = Swazi Nation Land
TCP = Technical Cooperation Programme
TDL = Title Deed Land
UBS = University of Botswana and Swaziland
UK = United Kingdom
UN = United Nations
UNDP = United Nations Development Programme
UNDTCD = United Nations Department for Technical Cooperation Development
UNFPA = United Nations Fund for Population Activities
UNHCR == United Nations High Commissioner for Refugees
USA = United States of America
USAID = United States Agency for International Development
VIF = Vuyulane Irrigated Farms
WFP = World Food Programme.

Annex 2: Swaziland's Political Structure



Notes:

- 1) Important issues or questions may be referred directly to the King. However in practice the SNC is always consulted first.
- 2) The procedure of electing/appointing members of Parliament, SNC etc. is set out in Section 3 Chapter I.

Annex 3: Cabinet Ministers, Deputy Ministers, Assistant Ministers
and Civil Servants

Cabinet, Deputy and Assistant Ministers

H.E. Prince Mabandla	Prime Minister
Hon. B.M. Nsibandze	Deputy Prime Minister
Hon. P.L. Dlamini	Minister for Justice
Hon. A.K. Hlophe	Minister for Agriculture
Hon. Prince Gabheni	Minister for Home Affairs
Hon. Prince Nqaba	Minister for Commerce, Industry, Mines and Tourism
Hon. J.L.F. Simelane	Minister for Finance
Hon. Cannon S.D.P. Dlamini	Minister for Education
Hon. Dr. S. Hynd	Minister for Health
Hon. Dr. V.G. Leibrandt	Minister for Works, Power and Communications
Hon. R.V. Dlamini	Minister without Portfolio
Hon. L.M. Mncina	Minister of State for Foreign Affairs
Hon. E.B. Simelane	Minister of State for Establishments and Training
Hon. B.A. Dlamini	Deputy Minister in Deputy Prime Minister's Office
Hon. W.M. Magongo	Deputy Minister for Education
Hon. J. Masson	Deputy Minister for Finance
Hon. Prince Mahhomu	Deputy Minister for Agriculture
Hon. D.H. Nhlabatsi	Assistant Minister for Works, Power and Communications

Permanent Secretaries

Dr. E.V. Dlamini	Secretary to Cabinet
Mr. S.J.S. Sibanyoni	Director of Personnel and Head of the Civil Service.
Mr. A.R. Shabangu	Permanent Secretary, Deputy Prime Minister's Office.
Mr. A.R.V. Khoza	Permanent Secretary, Ministry of Agriculture and Co-operatives.
Mr. G.M. Mabila	Permanent Secretary Works, Power & Communications.
Mr. V.E. Sikhondze	Permanent Secretary, Finance
Mr. S.Z.S. Dhlamini	Permanent Secretary, Foreign Affairs.
Mr. T.M.J. Zwane	Permanent Secretary, Economic Planning.
Mr. M.N. Dlamini	Permanent Secretary, Health

Permanent Secretaries (cont's)

Mr. M.J. Nsibandze	Permanent Secretary, Education.
Mr. M.A. Khumalo	Permanent Secretary, Home Affairs.
Mr. J.S.F. Magagula	Permanent Secretary, Justice.
Mr. J.D. Mngomezulu	Deputy Director of Personnel and Head of the Civil Service.

Under-Secretaries

Mr. E.E. Kunene	Foreign Affairs
Mr. A.S. Hadebe	Establishments & Training
Prince Sulumlomo	Deputy Prime Minister's Office
Mr. G.F. Dlamini	Agriculture
Mr. P.H. Mtetwa	Agriculture
Mr. Ray Straydom	Finance
Mr. S.J. Magagula	Civil Service Board
Mr. R. Kirker	Finance
Mr. V. Dlamini	D.P.M.'s Office
Mr. P.L. Nsibandze	Justice
Mr. C.M. Mkhonza	Works, Power and Communications
Mr. R.M. Mdluli	Tinkhundla Council
Mr. P. Bhengu	Home Affairs
Mr. A.V. Kunene	Commerce
Mr. Z.L. Mkhonza	Foreign Affairs
Mr. E. Bhembe	Economic Planning

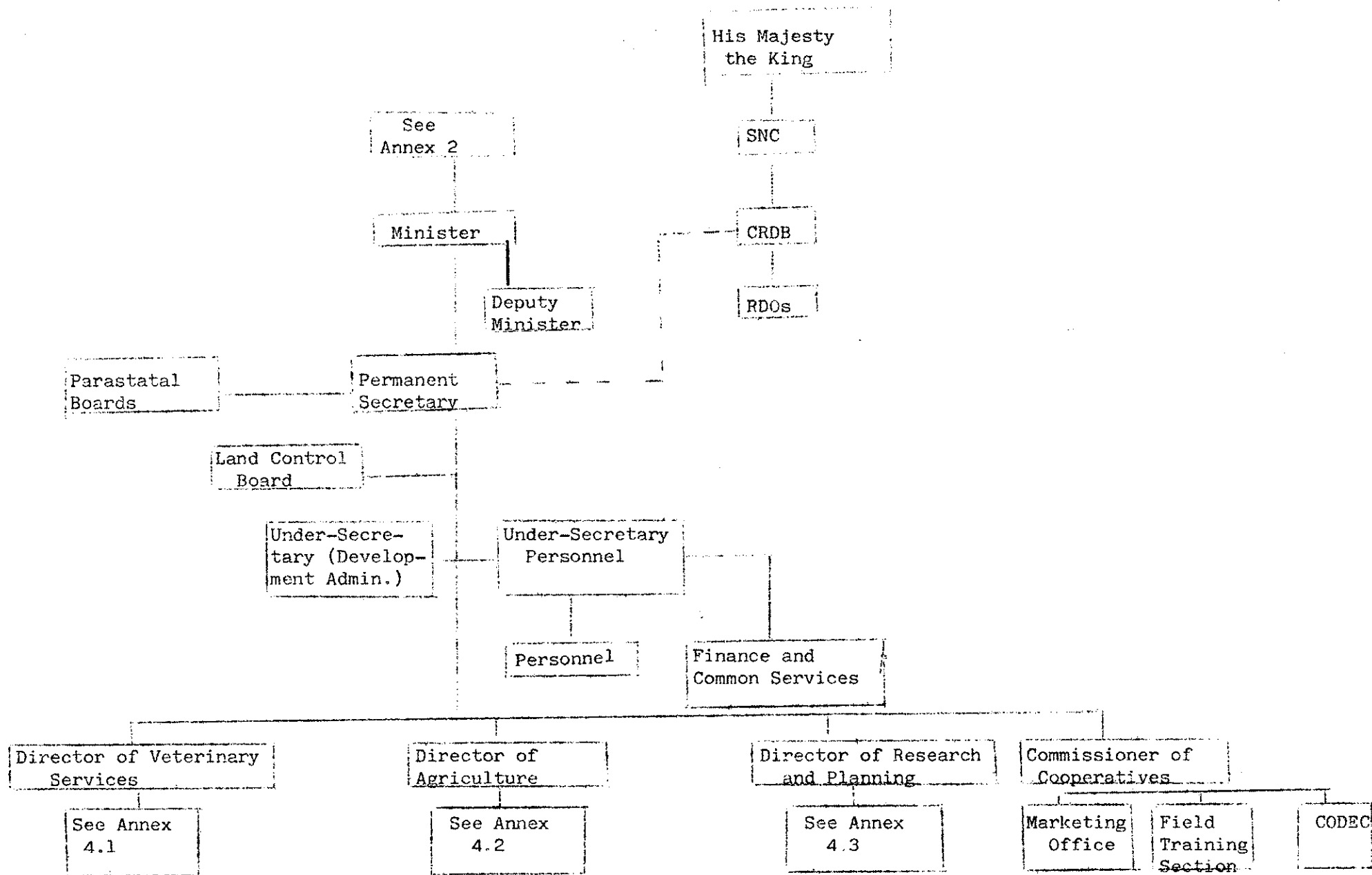
Heads of Departments

Mr. T.V. Mtetwa	Commissioner of Police
Mr. T. Msibi	Deputy Commissioner of Police
Mr. D. Lukhele	Hon. Justice
Mr. C.J. Nathan	Hon. Chief Justice
Mr. D. Cohen	Hon. Justice
Lieut Col. Dube	Chairman Civil Service Board
Mr. R. Mkhathshwa	Commissioner of Prisons
Mr. G.P. Dlamini	Auditor General
Mr. A.M. Fakudze	Accountant General
Mr. S. Masilela	Commissioner of Taxes
Mr. M.P. Mkhonza	Chief Customs Officer
Mr. J. Bhembe	Labour Commissioner
Prince Jwabu	Chief Immigration Officer

Heads of Departments (cont'd)

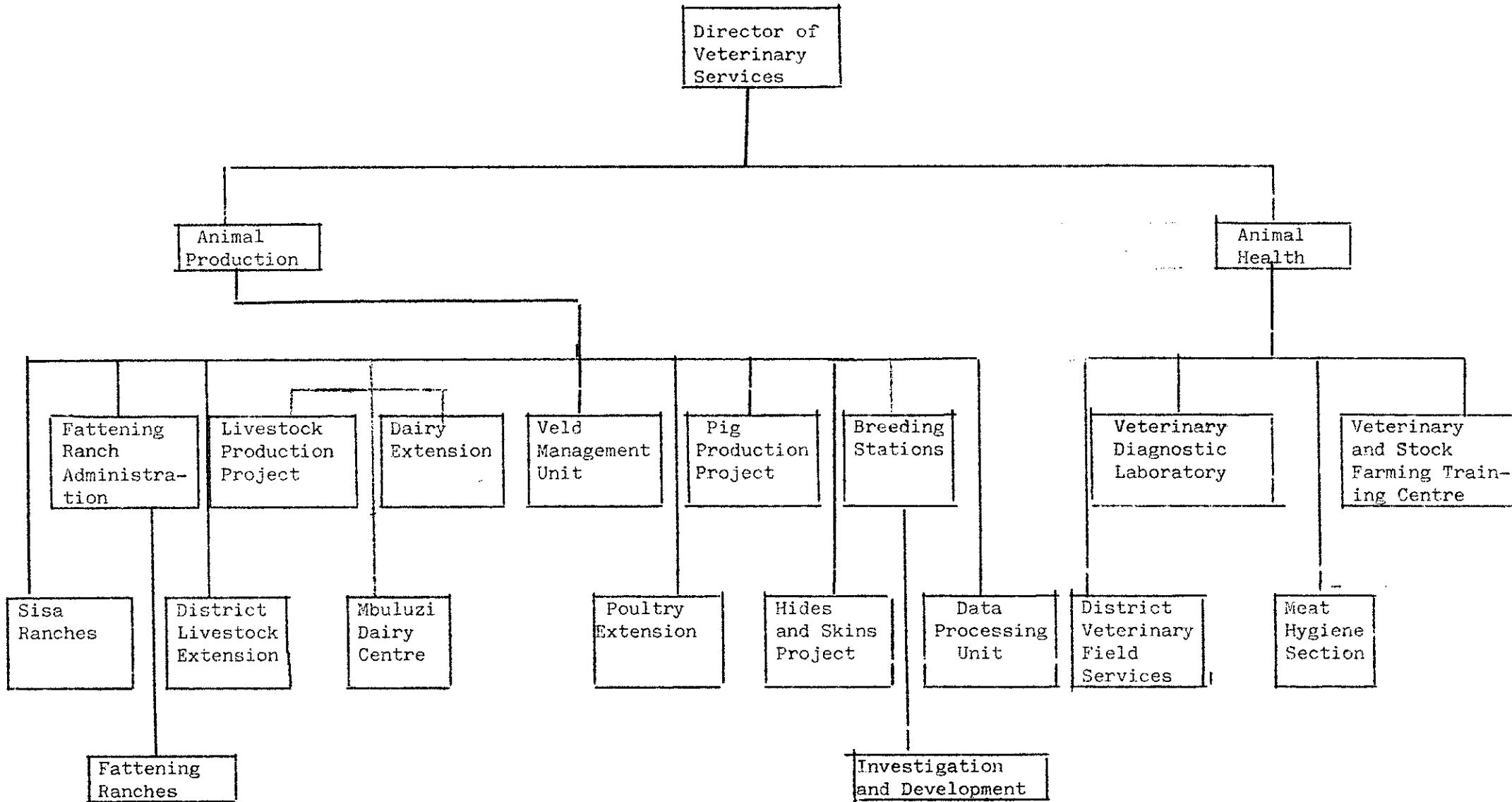
Mr. A. Dlamini	Director or Geological Survey & Mines
Mr. J. Vilakati	Director of Broadcasting and Information
Mr. S.S. Mahlalela	Actg. Director of Education
Mr. V. Phungwayo	Director of Agriculture
Mr. R. Shabalala	Government Security Officer
Dr. M. Dlamini	Director of Medical Services
Mr. J.A. Hassanali	Director of Public Prosecutions
Mr. Miller	Principal SCOT
Mr. Nithianandan	Actg. Attorney General
Mr. D. Sandall	Adviser Customs Officer
Mr. M.B. Mdziniso	Private Secretary to His Majesty
Mr. J.B.J.S Dhlamini	Vice Principal, SCOT
Mr. M.M.P. Mnisi	Senior Liaison Officer
Mr. Z.L. Mkhonza	Chief of Protocol
Prince Charles	Judicial Commissioner
Mr. R. Mabila	D.C. Hhohho
Mr. R. Nxumalo	D.C. Lubombo
Mr. I. Mbuli	Swaziland Milling Company
Mr. Mavimbeia	D.C. Manzini
Prince Mbilini	D.C. Shilelweni
Dr. N. Gumedze	Director of Veterinary Services (a.i.)
Dr. J.A. Menz	Director of Research and Planning
Mr. E. Mbingo	Commissioner of Cooperatives

Annex 4: Organizational Chart of the Ministry of Agriculture and Cooperatives
and The Central Rural Development Board

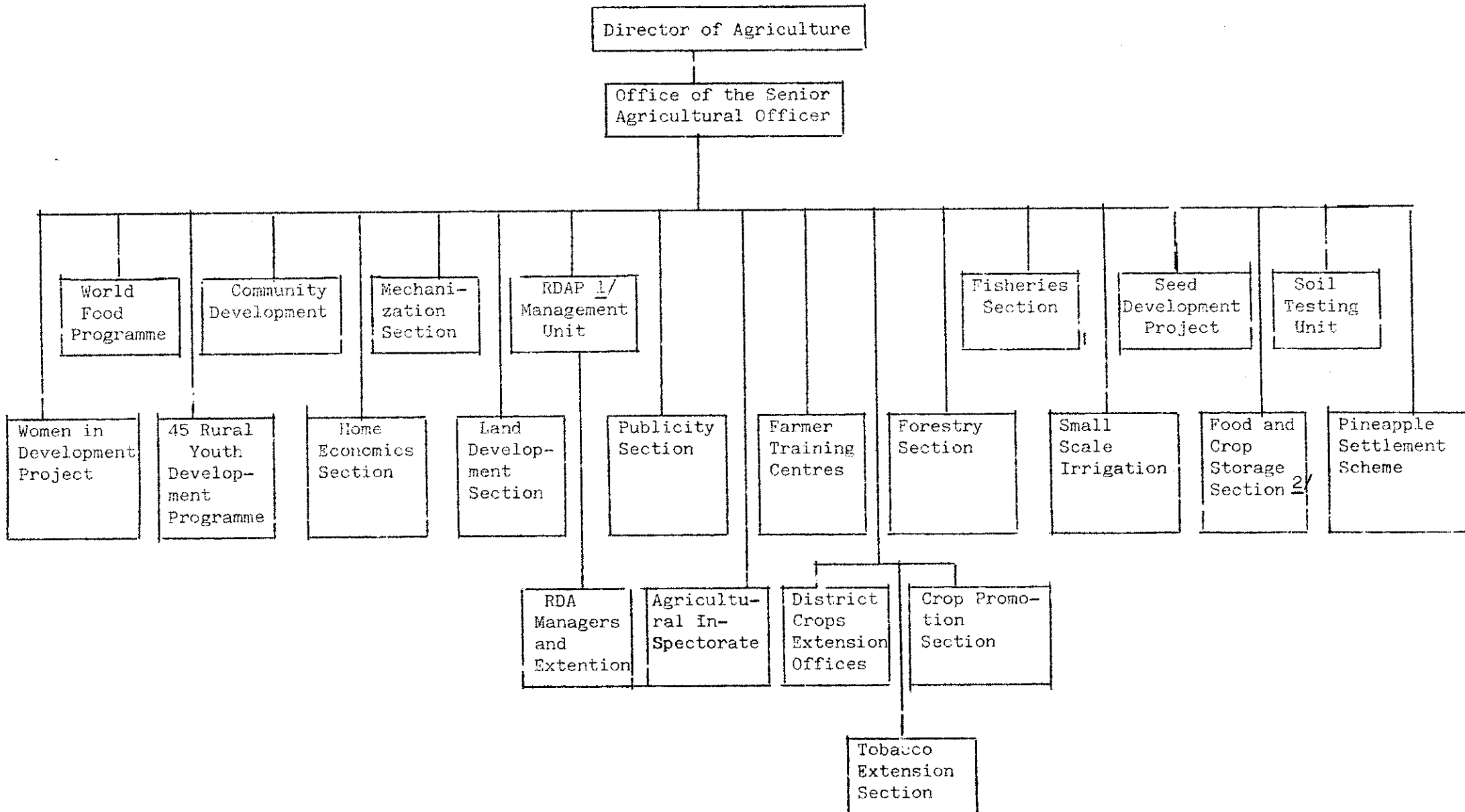


Note: The CRDB has to agree to all plans affecting Swazi Nation Land. The CRDB includes the King's Chiefs in the Tinkundlas - i.e. the most important chiefs - and a chairman appointed by the King. The RDOs are the link to local people.

Annex 4.1: Organizational Chart of the Department of Veterinary Services

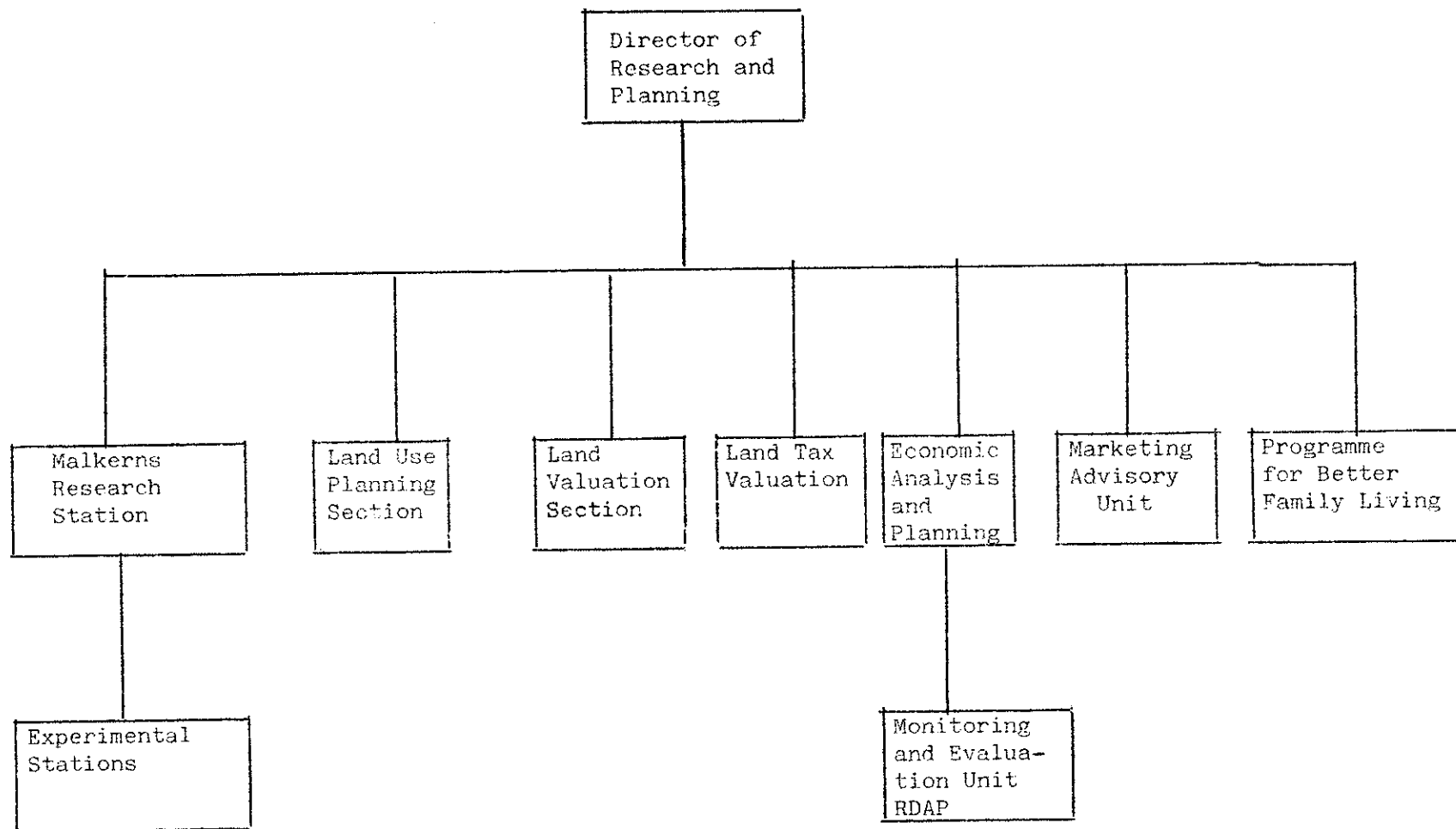


Annex 4.2: Organizational Chart of the Department of Agriculture



- Notes: ^{1/} The RDAP Management Unit reports via the Senior Agricultural Officer's Office on Operational Matters. On policy-matters reporting is directly to the Director of Agriculture.
- ^{2/} The former grain storage section, now called the Food and Crop Storage Section.

Annex 4.3: Organizational Chart of the Department of Research and Planning

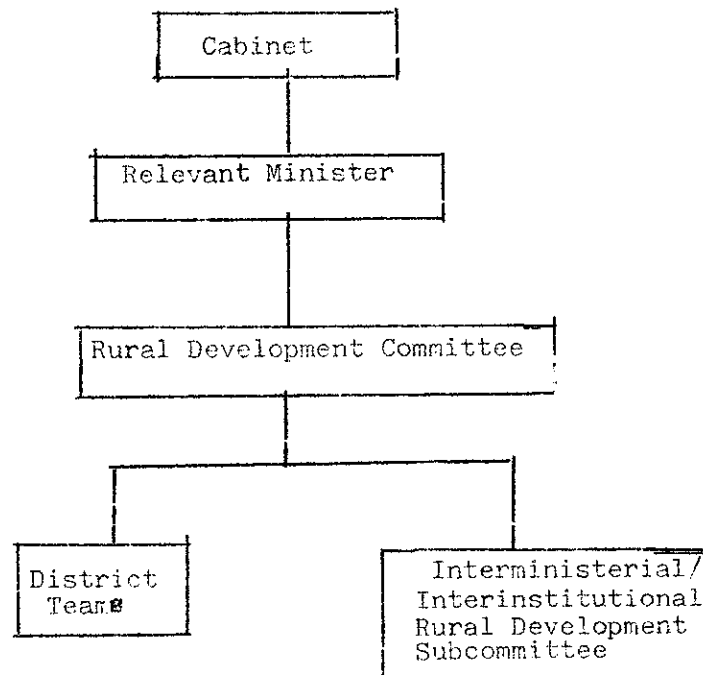


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Note:

The Monitoring and Evaluation Unit of the RDAP is financed under the RDAP Management Unit but reporting is through the Senior Agricultural Economist and Director of Research and Planning to the Permanent Secretary.

Annex 5: Interministerial Coordination and Rural Development



Notes:

- 1) All Permanent Secretaries are members of the RDC. The Chairman is presently the Secretary to the Cabinet.
- 2) Professional Officers from relevant Ministries make-up the RD-Subcommittee which is headed by the Permanent Secretary, Ministry of Agriculture and Cooperatives.
- 3) District Teams consist of all Heads of respective departments, RDO's etc in each district. The Chairman is the District Commissioner, and meetings are convened once a month.

HEAD 20 - AGRICULTURE AND COOPERATIVES (Continued)

Controlling Officer - Permanent Secretary

Ministry of Agriculture and Cooperatives

OBJECTIVES

Development of the Agricultural Economy

To increase productivity in the fields of agriculture and animal husbandry and to increase the disposable cash income available to persons engaged in agriculture and animal husbandry.

Improved Nutrition

To provide home economics services in rural areas in order to improve the standard of living through better utilization of foods for better nutrition.

ACTIVITY DESCRIPTION

Ministry Administration - Executive direction and common services for the Ministry; including administration, planning, finance and publicity.

Livestock Development - Facilities and services to improve livestock quality; veterinary services; breeding services; dip tanks; animal husbandry and training services.

Crop Development - Facilities and services to improve crop production including new crops; mechanisation training and other training facilities for farmers.

Fisheries Development - Policy and plans for improving the harvesting of fish from rivers and introducing new species as a source of food.

Forestry Development - Policy and plans for the greater utilisation of marginal land for forestry purposes and development of the forest industry.

Rural Development Areas and Settlement Schemes - Decentralisation of rural communities for better utilisation of farming land.

Land Use - Survey of land areas to determine best agricultural use; policy, planning and direction for maximising land use; valuation of land and buildings for sale or purchase by Government; control of sale of land to non-citizens to avoid land speculation.

Economic Analysis and Planning - Evaluation of agricultural plans and market surveys to determine viability of proposals.

HEAD 20 - AGRICULTURE AND COOPERATIVES (Continued)

ACTIVITY DESCRIPTION (Continued)

Home Economics - Training facilities in improved nutrition and sanitation methods in rural areas.

Cooperatives - Advising on the formation of cooperatives including training in their administration and operation; registration of cooperatives; assistance in organising marketing facilities for small farmers engaged in horticulture and animal husbandry.

EXPENDITURE ESTIMATES (Thousands of Emalangeni)

PART I SUMMARY EXPENDITURE ESTIMATES

<u>ACTIVITY</u>	<u>RECURRENT</u>	<u>CAPITAL</u>		<u>TOTALS</u>
		<u>GOVT.</u>	<u>OTHER</u>	
<u>CODE</u> <u>DESCRIPTION</u>				
11 Minister	76	-	-	76
12 Ministry Administration	1 230	291	955	2 476
21 Livestock	2 868	350	733	3 951
22 Crops	1 206	452	912	2 570
23 Fisheries	93	30	-	123
24 Forestry	121	128	-	249
25 Rural Dev. Areas	640	1 887	7 645	10 172
26 Land	529	-	-	529
27 Research	648	468	-	1 116
31 Home Economics	232	84	-	316
43 Economic Planning	96	-	-	96
51 Cooperatives	257	220	-	477
<u>HEAD TOTALS</u>	<u>7 996</u>	<u>3 910</u>	<u>10 245</u>	<u>22 151</u>

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART II RECURRENT EXPENDITURE COMPARATIVE SUMMARY

<u>ACTIVITY</u>		<u>1980/81</u>		<u>1979/80</u>		<u>1978/79</u>	
<u>CODE</u>	<u>DESCRIPTION</u>	<u>POSTS</u>	<u>ESTS.</u>	<u>POSTS</u>	<u>ESTS.</u>	<u>POSTS</u>	<u>ACTUAL</u>
11	Minister		76	5	29	3	33
12	Ministry Administration		1 230	166	837	101	481
21	Livestock		2 868	439	2 540	439	2 486
22	Crops		1 206	148	878	155	828
23	Fisheries		93	2	86	2	70
24	Forestry		121	16	108	6	44
25	Rural Dev. Areas		640	141	517	139	462
26	Land		529	50	381	49	279
27	Research		648	74	601	-	354
31	Home Economics		232	39	200	42	144
43	Economic Planning		96	21	79	21	51
51	Cooperatives		257	54	-	54	204
<u>HEAD TOTALS</u>			<u>7 996</u>	<u>1 155</u>	<u>6 256</u>	<u>1 011</u>	<u>5 436</u>

PART III RECURRENT EXPENDITURE BY TREASURY CONTROL ITEMS

<u>ACTIVITY</u>		<u>01</u>	<u>02</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>10</u>	<u>11</u>	<u>TOTALS</u>
<u>CODE</u>	<u>DESCRIPTION</u>	<u>PERSONNEL</u>	<u>TRANSPORT</u>	<u>SERVICES</u>	<u>RENTALS</u>	<u>CONSUMABLES</u>	<u>DURABLES</u>	<u>TRANSFERS INTERNAL</u>	<u>TRANSFERS EXTERNAL</u>	
11	Minister	57	16	-	-	1	2	-	-	76
12	Ministry Admin.	656	260	224	-	33	21	1	35	1 230
21	Livestock	2 163	370	41	-	250	42	-	2	2 868
22	Crops	683	325	16	-	105	11	66	-	1 206
23	Fisheries	50	21	2	-	17	3	-	-	93
24	Forestry	102	15	1	-	1	2	-	-	121
25	Rural Dev. Areas	493	64	7	-	8	2	-	66	640
26	Land	309	205	3	-	7	4	-	1	529
27	Research	416	127	22	-	65	18	-	-	648
31	Home Economics	177	39	3	-	12	1	-	-	232
43	Economic Planning	74	21	2	-	1	1	-	-	96
51	Cooperatives	150	62	9	-	20	4	2	-	257
<u>HEAD TOTALS</u>		<u>5 337</u>	<u>1 525</u>	<u>330</u>	<u>-</u>	<u>520</u>	<u>111</u>	<u>69</u>	<u>104</u>	<u>7 996</u>

HEAD 20 - AGRICULTURE AND COOPERATIVES (Continued)

Details of Grants, Subsidies and Other Transfer Payments

		<u>1980/81</u>	<u>1979/80</u>	<u>1978/79</u> <u>ACTUAL</u>
12	<u>Ministry Administration</u>			
	10103 Natural Resources Board	1	1	1
	11005 Food and Agricultural Organisation	17	17	9
	11011 International Red Locust Control	9	9	12
	11013 International Office of Epizootics	9	9	13
21	<u>Livestock</u>			
	11102 Commonwealth Agricultural Bureau	2	2	2
22	<u>Crops</u>			
	10701 Show Grants and Prizes	66	6	10
25	<u>Rural Development Areas</u>			
	10401 Vuvulane Irrigation Scheme	66	60	55
	10403 Pineapple Settlement Scheme	1	6	5
51	<u>Cooperatives</u>			
	10801 Grants to Students	2	1	1

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART IV: CAPITAL EXPENDITURE BY TREASURY CONTROL ITEMS (PROJECTS)

<u>Projects</u>	<u>Estimated</u>	<u>Estimated</u>	<u>ESTIMATES FOR 1980/81</u>			<u>Estimate</u>		
			<u>Total Cost</u>	<u>Expenditure</u>	<u>APPROPRIATION TO:</u>		<u>For Future</u>	
<u>Activity 12</u>	<u>Ministry Administration</u>		<u>to 31.3.80</u>	<u>AGRICULTURE</u>	<u>WORKS</u>	<u>TOTAL</u>	<u>Years</u>	
08.070	C	Publicity and Extension Equipment	104	31	73	-	73	-
08.080	C	Warehouse for World Food Programme Supplies	113	50	63	-	63	-
05.061	C	Outstation Housing for Community Development	155	-	-	155	155	-
08.301	B	Land Purchase	1 550	-	750	-	750	800
05.060	A	Community Self-Help Projects	780	105	205	-	205	470
		ACTIVITY TOTALS	2 702	186	1 091	155	1 246	1 270
		Of which from local funds	372	81	136	155	291	-
<u>Activity 21</u>	<u>Livestock</u>							
		(Livestock Production)						
08.500	A	Extension to Vet and Stock Farmers' Training Centre	40	-	-	40	40	-
08.513	A	Shiselweni Cattle Breeding Station	110	95	15	-	15	-
08.514	C	Nguni Cattle Purchase	35	11	12	-	12	12
08.519	C	Fencing of Cattle Ranches	30	15	15	-	15	-
08.527	A	Nyonyane Sisa Ranch	518	35	279	124	403	80
08.528	A	Lavumisa Fattening Ranch Extension	265	93	47	5	52	120
08.790	C	Electrical Installation Croydon	13	9	-	4	4	-
08.580		Dairy Cattle Multiplication	567	398	169	-	169	-
	C		(150)	-	(150)	-	(150)	-
	R		(417)	(398)	(19)	-	(19)	-
08.801		Lundzi Piggery	190	-	164	26	190	-
	C		(49)	-	(23)	(26)	(49)	-
	J		(141)	-	(141)	-	(141)	-

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART IV CAPITAL EXPENDITURE BY TREASURY CONTROL ITEMS (PROJECTS)(Continued)

<u>Projects</u>		<u>Estimated Total Cost</u>	<u>Estimated Expenditure to 31.3.80</u>	<u>ESTIMATES FOR 1980/81</u>			<u>Estimate For Future Years</u>	
				<u>APPROPRIATION TO:</u>		<u>TOTAL</u>		
			<u>AGRICULTURE</u>	<u>WORKS</u>				
<u>Activity 21 Livestock (Continued)</u>								
(Livestock Production)								
08.600	C	Mbuluzi Dairy Centre	123	12	17	79	96	15
08.630	A	Bush Control	588	573	15	-	15	-
(Veterinary Services)								
08.700	A	Diptank Construction	198	100	48	-	48	50
08.760	C	Brucellosis Control	50	35	5	-	5	10
08.770	C	Radio Communications	18	12	6	-	6	
08.780	C	Rabies Control	87	45	13	-	13	29
<u>ACTIVITY TOTAL</u>			<u>2 832</u>	<u>1 433</u>	<u>805</u>	<u>278</u>	<u>1 083</u>	<u>316</u>
Of which from local funds			555	139	241	109	350	66
<u>Activity 22 Crops</u>								
08.020	C	Young Farmers' Club	94	28	18	48	66	-
08.100	C	Small Scale Irrigation	297	167	88	-	88	42
08.110	C	Paddy Rice Extension	179	109	25	-	25	45
08.120	A	Crop Promotion	277	202	30	-	30	45
08.151	C	Lowveld Farmer Training Centre	369	302	27	20	47	20
08.153	C	Nhlangano Farmer Training Centre	100	37	19	-	19	44
08.160	D	Maize Storage	747	-	747	-	747	-
08.190		Seed Multiplication	841	499	292	50	342	
	C		(476)	(269)	(157)	(50)	(207)	
	D		(365)	(230)	(135)	-	(135)	
<u>ACTIVITY TOTAL</u>			<u>2 904</u>	<u>1 344</u>	<u>1 246</u>	<u>118</u>	<u>1 364</u>	<u>196</u>
Of which from local funds			1 515	912	334	118	452	151

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART IV CAPITAL EXPENDITURE BY TREASURY CONTROL ITEMS (PROJECTS)(Continued)

Projects	Estimated Total Cost	Estimated Expenditure to 31.3.80	ESTIMATES FOR 1980/81			Estimate For Future Years
			APPROPRIATION TO:		TOTAL	
			AGRICULTURE	WORKS		
<u>Activity 23 Fisheries</u>						
08.340 C Fisheries Development	187	132	30		30	25
ACTIVITY TOTAL	187	132	30		30	25
All from local funds						
<u>Activity 24 Forestry</u>						
08.350 C Forestry Development	388	112	87	41	128	148
ACTIVITY TOTAL	388	112	87	41	128	148
All from local funds						
<u>Activity 25 Rural Development Areas (RDAs)</u>						
08.302 A RDA Overheads	384	240	71	-	71	73
08.303 A Northern RDA	707	430	179	-	179	98
08.304 A Central RDA	764	420	213	58	271	73
08.305 A Southern RDA	535	360	121	-	121	54
08.306 A Mahlangatsha RDA	753	620	50	-	50	83
08.307 A Ebulandzeni RDA	371	60	166	12	178	133
08.309 RDA Management Services	2 808	550	264	-	264	1 994
X	(925)	(181)	(86)	-	(86)	(658)
K	(1 095)	(215)	(102)	-	(102)	(778)
C	(788)	(154)	(76)	-	(76)	(558)
08.311 Mahamba Zombodze RDA	2 528	543	517	117	634	1 351
X	(754)	(163)	(186)	-	(186)	(405)
K	(180)	(38)	(47)	-	(47)	(95)
P	(910)	(195)	(147)	(82)	(229)	(486)
C	(684)	(147)	(137)	(35)	(172)	(365)
08.312 Lubombo-Mpolonjeni RDA	3 874	653	775	181	956	2 265
X	(1 044)	(176)	(256)	-	(256)	(612)
K	(111)	(20)	(24)	-	(24)	(67)
P	(1 663)	(281)	(281)	(127)	(408)	(974)
C	(1 056)	(176)	(214)	(54)	(268)	(612)

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART IV CAPITAL EXPENDITURE BY TREASURY CONTROL ITEMS (PROJECTS)(Continued)

Projects Activity 25	Rural Dev. Areas (RDAs) (Continued)	Estimated Total Cost	Estimated Expenditure to 31.3.80	ESTIMATES FOR 1980/81			Estimate For Future Years
				APPROPRIATION TO:		TOTAL	
				AGRICULTURE	WORKS		
08.313	Hluti RDA	607	186	140	12	152	269
	X	(30)	(9)	(8)	-	(8)	(13)
	K	(248)	(76)	(62)	-	(62)	(110)
	P	(244)	(75)	(52)	(9)	(61)	(108)
	C	(85)	(26)	(18)	(3)	(21)	(38)
08.314	Bhekinkosi-Mliba RDA	607	156	139	12	151	300
	X	(31)	(8)	(8)	-	(8)	(15)
	K	(260)	(67)	(64)	-	(64)	(129)
	P	(237)	(61)	(50)	(9)	(59)	(117)
	C	(79)	(20)	(17)	(3)	(20)	(39)
08.315	Hawane Farm Resettlement	33	24	9	-	9	-
08.316	Sandleni-Luqolweni RDA	607	150	141	23	164	293
	X	(42)	(11)	(11)	-	(11)	(20)
	K	(207)	(51)	(56)	-	(56)	(100)
	P	(267)	(66)	(55)	(17)	(72)	(129)
	C	(91)	(22)	(19)	(6)	(25)	(44)
08.317	Sithobela-Madubeni RDA	607	150	155	23	178	279
	X	(37)	(9)	(11)	-	(11)	(17)
	K	(152)	(38)	(44)	-	(44)	(70)
	P	(316)	(78)	(76)	(17)	(93)	(145)
	C	(102)	(25)	(24)	(6)	(30)	(47)
08.318	Siphofaneni/Maphobeni RDA	607	130	128	35	163	314
	X	(38)	(8)	(11)	-	(11)	(19)
	K	(164)	(35)	(44)	-	(44)	(85)
	P	(303)	(65)	(55)	(26)	(81)	(157)
	C	(102)	(22)	(18)	(9)	(27)	(53)

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART IV CAPITAL EXPENDITURE BY TREASURY CONTROL ITEMS (PROJECTS)(Continued)

<u>Projects</u>	<u>Activity</u>	<u>Rural Dev. Areas (RDAs)</u> (Continued)	<u>Estimated</u> <u>Total Cost</u>	<u>Estimated</u> <u>Expenditure</u> <u>to 31.3.80</u>	<u>ESTIMATES FOR 1980/81</u>			<u>Estimate</u> <u>For Future</u> <u>Years</u>
					<u>APPROPRIATION TO:</u>		<u>TOTAL</u>	
					<u>AGRICULTURE</u>	<u>WORKS</u>		
08.320	J	Agricultural Plant	6 400	1 300	3 400	-	3 400	1 700
08.360	C	Land Development Units	8 642	1 542	1 100		1 100	6 000
08.400	A	Mayiwane-Herefords RDA	873	142	278	126	404	327
08.401	A	Madulini-Mahlalini RDA	589	172	148	47	195	222
08.402	A	Ngwempisi RDA	935	534	258	12	270	131
08.404		Masala-Vikisijula RDA	500	-	63	23	86	414
	X		(15)	-	(3)	-	(3)	(12)
	K		(65)	-	(11)	-	(11)	(54)
	P		(326)	-	(39)	(17)	(56)	(270)
	C		(94)	-	(10)	(6)	(16)	(78)
08.405		Nkambeni-Madlangempisi RDA	660	-	205	47	253	407
	X		(87)	-	(34)	-	(34)	(53)
	K		(164)	-	(62)	-	(62)	(102)
	P		(296)	-	(80)	(33)	(113)	(183)
	C		(113)	-	(30)	(14)	(44)	(69)
08.406		Siphocosini/Motshane RDA	660	-	186	47	233	427
	X		(98)	-	(34)	-	(34)	(64)
	K		(199)	-	(71)	-	(71)	(128)
	P		(257)	-	(57)	(33)	(90)	(167)
	C		(106)	-	(24)	(14)	(38)	(68)
08.403	C	RDA Tractor Pool	91	20	50	-	50	21
<u>ACTIVITY TOTAL</u>			<u>35 142</u>	<u>8 382</u>	<u>8 757</u>	<u>775</u>	<u>9 532</u>	<u>17 228</u>
<u>Of which from local funds</u>			<u>12 033</u>	<u>2 154</u>	<u>1 737</u>	<u>150</u>	<u>1 887</u>	<u>7 992</u>

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

PART IV CAPITAL EXPENDITURE BY TREASURY CONTROL ITEMS (PROJECTS)(Continued)

<u>Projects</u>	<u>Estimated</u>	<u>Estimated</u>	<u>ESTIMATES FOR 1980/81</u>			<u>Estimate</u>
			<u>Total Cost</u>	<u>Expenditure</u>	<u>APPROPRIATION TO:</u>		For Future
		<u>to 31.3.80</u>	<u>AGRICULTURE</u>	<u>WORKS</u>	<u>TOTAL</u>	<u>Years</u>
<u>Activity 27 Agricultural Research</u>						
08.200 C Agricultural Research	1 260	-	144	290	434	825
08.201 C Research on Fungal Contaminants	34	-	34	-	34	-
ACTIVITY TOTAL	1 294	-	178	290	468	825
All from local funds						
<u>Activity 31 Home Economics</u>						
08.060 C Workshop at Big Bend Farmer Training Centre	63	14	6	43	49	-
08.061 C Nutrition Rehabilitation Centre	35	-	7	28	35	-
ACTIVITY TOTAL	98	14	13	71	84	-
All from local funds						
<u>Activity 51 Cooperatives</u>						
12.060 C Central Cooperativa Union Warehouse	120	-	-	120	120	-
12.061 C Codec Dining Room Extension	100	-	-	100	100	-
ACTIVITY TOTAL	220	-	-	220	220	-
All from local funds						
HEAD TOTALS	46 247	11 603	12 207	1 948	14 155	20 009
Of which from local funds	16 662	3 544	2 756	1 154	3 910	9 208

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

Notes

Activity 12 Ministry Administration

08.070 Publicity and Extension Equipment

Purchase of a landrover completely equipped for a Film-Mobile Unit, a caravan for the operator and an offset printing machine. The publicity unit is responsible for bringing relevant information to the rural community by means of publications, posters and pamphlets.

08.080 Warehouse For World Food Programme Supplies

Construction of an additional warehouse and an ablution block at Matsapha W.F.P. Stores.

05.060 Community Self-Help Projects

U.K. loan funds will be requested to finance the construction of feeder roads, community schools and potable water supply schemes in rural areas on a self-help basis. Communities provide labour while U.K. loan funds are used to purchase material.

05.061 Outstation Housing

Construction of thirteen two bedroom houses in rural areas for field staff of the community development unit. Each house will cost E12 250.

Activity 21 Livestock

(Livestock Production)

08.500 Extension to Veterinary and Stock Farmer Training Centre

U.K. loan funds will be requested to finance the construction of extensions to the kitchen, storeroom, office, hostel and the construction of three small junior staff houses for a clerk, cleaner and a visiting lecturer.

08.513 Shiselweni Cattle Breeding Station

U.K. loan funds will be used to purchase fencing material for the ranch and to purchase a five ton tipping trailer.

08.514 Nguni Cattle Purchase

Local funds will be used to purchase one hundred male Nguni Cattle in order to increase the National Nguni Stud.

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

Notes (Continued)

Activity 21 Livestock (Continued)

- 08.527 Nyonyane Sisa Ranch
U.K. loan funds will be used to finance the construction of houses for a Ranch Manager, Farm Foreman, Clerk, drivers and labourers at the Ranch. U.K. loan funds will also be used to purchase farm equipment and vehicles and fencing material.
- 08.528 Lavumisa Fattening Ranch Extension
U.K. loan funds will be used to finance the construction of two earth dams, labourers quarters and to purchase one seven-ton truck for the ranch.
- 08.600 Mbuluzi Dairy Centre
Construction of one three bedroomed house, two two bedroomed houses for field officers, one five roomed block with ablution and purchase of dairy equipment.
- 08.630 Bush Control
U.K. loan funds will be requested to purchase chain saws and prefabricated storage facility for the saws.
- 08.760 Brucellosis Disease Control
Continuation of the vaccination of all female calves in the country in order to eradicate the disease in cattle.
- 08.780 Rabies Control
Vaccination of dogs against rabies.

Activity 22 Crops

- 08.020 Young Farmers' Clubs
Construction of one two bedroomed house and purchase of two vehicles.
- 08.100 Small scale Irrigation Schemes
Construction of a field officer's house at Zakhe and various improvements to irrigation schemes at Mankantshane, Magwanyane at Velezizweni.
- 08.110 Paddy Rice Extension
Purchase of a rotarvator, a disc plough, harrows and a vehicle. The project is managed by Chinese technical assistance experts.

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

Notes (Continued)

Activity 22 Crops (Continued)

- 08.120 Crop Promotion
U.K. loan funds will be requested to purchase laboratory equipment for the grain storage laboratory at Malkerns Research Station and soil testing equipment.
- 08.151 Lowveld Farmer Training Centre
Purchase of a twenty-five seater bus and farm machinery, and construction of an additional hostel.
- 08.153 Nhlangano Farmer Training Centre
Purchase of a refrigerator, tractor-trailer, a double row planter and a double furrow plough.
- 08.160 Maize Storage
Danish loan funds will be requested to finance the construction of maize silos at strategic places in the country.
- 08.190 Seed Multiplication
Local funds will be used to finance the construction of eleven staff houses and a laboratory extension.
Danida funds will be used to purchase a processing plant and miscellaneous seed processing equipment.

Activity 23 Fisheries

- 08.340 Fishery Development
Purchase of new fishing equipment and technical books on inland fisheries.

Activity 24 Forestry

- 08.350 Forestry Development
Construction of seed-sheds, and purchase of nursery equipment and a three ton truck.

Activity 25 Rural Development Areas RDAs

08.302, 08.303, 08.304, 08.305, 08.306, 08.307, 08.400, 08.401 and 08.402:

RDA General Overheads, Northern, Central, Southern, Mahlangatsha, Ebulandzeni, Mayiwane-Herefords, Madulini-Mahlalini, and Ngwempisi RDAs.

U.K. loan funds will be requested to finance the continuation of agricultural development programmes in the RDAs. The programmes include land development and conservation works, fencing of livestock grazing camps, construction of project centres and houses for agricultural extension staff.

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

Notes (Continued)

Activity 25 Rural Development Areas RDAs

08.309 RDA Management and Services

Loan funds from the African Development Bank, the World Bank, grant funds from the European Development Fund, and local funds will be used to purchase additional vehicles and equipment for the RDA Management Unit. These funds will also be used to finance technical assistance, training, studies, monitoring and evaluation of RDAs.

08.311, 08.312, 08.313, 08.314, 08.315, 08.316, 08.317, 08.318, 08.404, 08.405 and 08.406:

Mahamba/Zombodze, Lubombo/Moolenjavi, Hluŕi, Mliba/Bhekinkosi, Sandleni/Lucolweni, Sithobela/Madubeni, Siphofane/ Maphobeni, Masala/Vikisijula, Ntshobeni/Madlangeni, Siphocosini/Motshane RDAs.

Loan funds from the African Development Bank, the World Bank, grant funds from the European Development Fund and local funds will be used to finance RDA activities which will include the construction of project centres, strengthening of agricultural extension services, the construction of roads and other infrastructural structures in these areas.

08.315 Hawane Farm

U.K. loan funds will be used to finance the completion of resettlement of families at Hawane Farm.

08.320 Agricultural Plant

Loan funds from the Government of the United States of America will be used to purchase additional heavy earthmoving equipment to increase the capacity of Land Development Units to carryout infrastructural work in Rural Development Areas.

Activity 27 Research

08.200 Agricultural Research

Construction of four semi-detached houses at the lowveld experimental station, six junior staff houses at Malkerns Research Station and an extension to a chemistry laboratory at Malkerns Research Station; purchase of miscellaneous pieces of equipment for the farm and laboratories at Malkerns Research Station.

HEAD 20 - AGRICULTURE & COOPERATIVES (Continued)

Notes (Continued)

Activity 27 Research (Continued)

08.201 Research on Fungal Contaminants

Local funds will be used to finance staff houses at Malkerns Research Station as a contribution to a research project which is funded by the International Agency for Research on Cancer, World Health Organisation and the Food and Agriculture Organisation.

Activity 31 Home Economics

08.060 Workshop

Construction of a workshop for sewing and weaving at the Lowveld Farmer Training Centre and purchase of sewing machine.

PART B: EXTERNALLY FINANCED TECHNICAL CO-OPERATION PROJECTS AND ACTIVITIES 1979

COUNTRY RECEIVING ASSISTANCE: SWAZILAND SECTOR: AGRICULTURE, Forestry and Fisheries

(1) PROJECT ACTIVITY (TITLE)	(2) SOURCE OF ASSISTANCE	(3) ASSISTANCE COMMITTEED FOR 1979* (US \$ EQUIVALENT)	(4) DURATION OF TOTAL PROJECT BEGIN-END DATES	(5) NATURE OF ASSISTANCE AND LOCATION, COMMENTS (WHERE NO PLACE INDICATED = MBABANE)
SWA/78/014 - Assistance in Marketing for Rural Development	UNDP (FAO)	6,337 (215,852)	Dec. 79 - Dec. 81	A Marketing Adviser, 5 months. Consultancies and equipment Ministry of Agriculture and Cooperatives.
Associate Expert (Marketing Intelligence) to SWA/78/014	BELGIUM (FAO)	9,067	Sept. 79 - Aug. 80	- " -
SWA/78/015 - Research for Rural Development	UNDP (FAO)	7,208 (384,993)	Nov. 79 - Aug. 83	Two advisors, 9 man/months of consultancies and equipment. Malkerns Research Station.
SWA/78/021 - Assistance to Agricultural Research and Planning	UNDP (FAO)	60,608 (205,974)	Jan. 79 - Dec. 81	A Director of Research and Planning (OPAS), one secretary equipment. Ministry of Agriculture & Cooperatives
Associate Expert to SWA/78/021 (Programme Officer)	DENMARK (FAO)	27,200 (54,400)	Nov. 78 - Nov. 80	One associate expert attached to the FAO Officer-in-Charge, UNDP Office.
TCP/SWA/8801 - Preinvestment study for Processing of Tropical Fruits	FAO-TCP	11,000 (22,000)	Jan. 79 - Dec. 80	One Consultant, equipment (\$3,500). Ministry of Agriculture & Cooperatives.

* For calendar year 1979 or for specified fiscal year beginning or ending in 1979. Figures in parenthesis indicate total budget for life of project.

(1) PROJECT ACTIVITY (TITLE)	(2) SOURCE OF ASSISTANCE	(3) ASSISTANCE COMMITTED FOR 1979* (US \$ EQUIVALENT)	(4) DURATION OF TOTAL PROJECT BEGIN-END DATES	(5) NATURE OF ASSISTANCE AND LOCATION, COMMENTS (WHERE NO PLACE INDICATED = MBABANE)
MMP/SWA/001 - Establishment of Home and Village Technology Centre	FAO-MMP	15,000	1979	Equipment for centre at University College of Swaziland, Luyengo Campus.
PFL/SWA/001 - Prevention of Food Losses	FAO-PFL	28,540	1979	Preparatory Assistance related to formulating a project on prevention of food losses. Ministry of Agriculture & Cooperatives.
Associate Expert (Horticulture) to SWA/72/015 - Crop Production	SWEDEN (FAO)	9,067	Jan. 78 - Apr. 79	Ministry of Agriculture and Cooperatives.
GCP/SWA/005 (DEN) - Development of Quality Seed Production	DENMARK (FAO)	162,291 (543,333)	Oct. 78 - Sept. 82	One expert, equipment (\$96,000). Malkerns Research Station.
Associate Expert (Seed Production and Processing) to GCP/SWA/005 (DEN)	NETHERLANDS (FAO)	27,200 (54,400)	Oct. 78 - Oct. 80	- " -
Associate Expert (Seed Quality Control) to GCP/SWA/005 (DEN)	DENMARK (FAO)	27,200 (54,400)	Nov. 78 - Nov. 80	- " -
GCP/SWA/014(SWE) - Assistance to Faculty of Agriculture (Phase I)	SWEDEN (FAO)	466,175 (3,451,000)	Jan. 79 - June 83	Nine experts, ten fellowships, equipment(\$30,000). University College of Swaziland, Luyengo Campus.
Associate Expert (Animal Production) to GCP/SWA/014 (SWE)	NETHERLANDS (FAO)	27,200 (54,400)	Oct. 78 - Sept. 80	- " -

* For calendar year 1979 or for specified fiscal year beginning or ending in 1979. Figures in parenthesis indicate total budget for life of project.

(1) PROJECT ACTIVITY (TITLE)	(2) SOURCE OF ASSISTANCE	(3) ASSISTANCE COMMITTED FOR 1979* (US \$ EQUIVALENT)	(4) DURATION OF TOTAL PROJECT BEGIN-END DATES	(5) NATURE OF ASSISTANCE AND LOCATION, COMMENTS (WHERE NO PLACE INDICATED = MBABANE)
Associate Expert (Animal Health) to GCP/SWA/014 (SWE)	DENMARK (FAO)	11,333 (54,400)	Aug. 79 - Aug. 81	University College of Swaziland Luyengo Campus.
Associate Expert (Nutrition) to GCP/SWA/014 (SWE)	SWEDEN (FAO)	27,200 (54,400)	Jan. 79 - July 81	" "
Associate Expert (Textiles) to GCP/SWA/014 (SWE)	SWEDEN (FAO)	27,200 (54,400)	Aug. 77 - July 80	" "
Associate Expert (Agricultural Education) to GCP/SWA/014 (SWE)	NETHERLANDS (FAO)	27,200 (74,400)	Oct. 78 - June 81	" "
SWA/78/SIDA/001 - Adviser to the Dean, Faculty of Agriculture	SWEDEN (FAO)	40,300 (53,733)	Oct. 78 - Sept. 79	One expert, University College of Swaziland, Luyengo Campus.
18 OSAS Officers	UK	360,000	Continuing	Ministry of Agriculture and Cooperatives. (vets, etc.)
RDA Project Manager	UK	48,000	1975 - 1981	" " (Whlangano)
Chief Coordinator RDA's	UK	50,000	1978 - 1981	" "
BESS Officer	UK	20,000	1975 - 1982	National Trust Commission
Senior Economist	UK	48,000	1975 - 1980	Ministry of Agriculture and Cooperatives.
Economist	UK	40,000	1979 - 1981	" " "

* For calendar year 1979 or for specified fiscal year beginning or ending in 1979. Figures in parenthesis indicate total budget for life of project.

(1) PROJECT ACTIVITY (TITLE)	(2) SOURCE OF ASSISTANCE	(3) ASSISTANCE COMMITTED FOR 1979* (US \$ EQUIVALENT)	(4) DURATION OF TOTAL PROJECT BEGIN-END DATES	(5) NATURE OF ASSISTANCE AND LOCATION, COMMENTS (WHERE NO PLACE INDICATED = MBABANE)
Ranch Manager	UK	28,000	May 1979 - 1981	Ministry of Agriculture(Nyonyane)
Rural Sociologist	UK	48,000	1978 - 1980	" "
Chief Research Officer	UK	24,000	1976 - 1979 (June)	" " (Malkerns)
Cotton Entomologist	UK	36,000	1976 - 1979	" " (Big Bend)
Post Harvest Storage Officer	UK	20,000	1973 - May 1979	" " (Malkerns)
Community Development Officer	UK	40,000	1972 - Oct. 1979	" "
CCU Accountant	UK	12,000	May 79 - Dec. '81	CCU Manzini
645-0055 Cooperatives and Marketing	USA	634,000	1976 - 1981	To assist in developing a viable producer-oriented cooperative structure providing production related inputs and marketing services to rural farmers. Technical assistance - Chief Technical Advisor, Advisor in Credit Marketing, Advisor in Fertilizer Supply and Transporta- tion, and Six District Coops. Advisors.

* For calendar year 1979 or for specified fiscal year beginning or ending in 1979. Figures in parenthesis indicate total budget for life of project.

(1) PROJECT ACTIVITY (TITLE)	(2) SOURCE OF ASSISTANCE	(3) ASSISTANCE COMMITTED FOR 1979* (US \$ EQUIVALENT)	(4) DURATION OF TOTAL PROJECT BEGIN-END DATES	(5) NATURE OF ASSISTANCE AND LOCATION, COMMENTS (WHERE NO PLACE INDICATED = MBABANE)
645-0068 Rural Development Areas Infrastructure Support	USA	695,000	1978 - 1984	To strengthen the Ministry of Agriculture's capacity to carry out land development activities in the rural development area program. Technical assistance - four Land Planning Officers, Resource Economist, Range Ecologist, two Construction Engineers, Equipment Operations Advisor, Manager Supplies/Advisor, Computer Programmer, Senior Mechanic Instructor, Mechanical Field Superintendent and a Management Systems/Administration Advisor.
Dairy Production	CANADA	682,353 (2,976,471)	1976 - 1983	Cooperants and dairy cattle.
Agricultural Demonstration Project and Experiments	REPUBLIC OF CHINA	Not available	Ongoing	Matsapha Area.
Agricultural Extension Projects	REPUBLIC OF CHINA	Not available	Ongoing	Northern and Southern RDA
Expert in Agricultural, Extension and Training	ISRAEL	Not available	Not available	Ministry of Agriculture and Cooperatives.
Training in Marketing of Agricultural Produce	ISRAEL	Not available	Not available	Not available

* For calendar year 1979 or for specified fiscal year beginning or ending in 1979. Figures in parenthesis indicate total budget for life of project.

(1) PROJECT ACTIVITY (TITLE)	(2) SOURCE OF ASSISTANCE	(3) ASSISTANCE COMMITTED FOR 1979* (US \$ EQUIVALENT)	(4) DURATION OF TOTAL PROJECT BEGIN-END DATES	(5) NATURE OF ASSISTANCE AND LOCATION, COMMENTS (WHERE NO PLACE INDICATED = MBEABANE)
Training in Cattle Breeding & Modern System of Milk Production	ISRAEL	Not available	Not available	Not available
Training in Community Services in Rural Development	ISRAEL	Not available	Not available	Not available
Training in Fish Culture	ISRAEL	Not available	Not available	Not available
Training in Agricultural Extension Systems and Methodology	ISRAEL	Not available	Not available	Not available
Training in Bee-keeping	ISRAEL	Not available	Not available	Not available
Volunteers	U.S. PEACE CORPS	Not available	1968 -	Two Volunteers in fisheries, 2 in Cooperatives, one in extension work and one in fruit tree nursery. Ministry of Agriculture & Cooperatives
Assistance to the Ministry of Agriculture and Cooperatives	NETHERLANDS	50,000	1977 - 1980	One Forestry Officer
Rural Development Areas (RDA)	EDF	60,000	Sept. 79 - July 82	One field liaison and evaluation Officer, two annual missions, one vehicle.
Fellowships	EDF	75,000	1977 - 1981	Each year 40 fellowships, duration one year. Faculty of Agriculture, University College of Swaziland.
Gilgal Community Development Project	MCC	1,488	1978 - 1980	Provide assistance to one agriculturalist in this community.
Leprosy Hospital Agriculture Project	MCC	496	1978 - 1979	Provide assistance to one agriculturalist working with Leprosy patients.

* For calendar year 1979 or for specified fiscal year beginning or ending in 1979. Figures in parenthesis indicate total budget for life of project.

PART B: CAPITAL INVESTMENT

In this report, capital assistance is defined to include loans, grants and credits from external sources as distinguished from technical assistance and pre-investment activities. It should be noted that an unidentified portion of the funds earmarked for capital expenditure by the Government is used for recurrent purposes normally classified as technical assistance.

Of the total proposed Government capital expenditure of \$127,257,000 during the fiscal year 1979/80, \$49,400,000 was earmarked for funding from Government sources and \$77,857,000 from external sources. The distribution of these funds on major sectors is as follows:

	<u>Government</u>	<u>External Sources</u>	<u>Total</u>
	\$000	\$000	\$000
General Development	15,006	2,191	17,197
Natural Resources	1,218	1,736	2,954
Agriculture	5,371	26,658	32,029
Industry and Mining	9,458	16,960	26,418
Transport & Communications	12,260	13,468	25,728
Human Settlements	1,843	397	2,240
Health	490	3,099	3,589
Education	3,754	13,348	17,102
	<u>49,400</u>	<u>77,857</u>	<u>127,257</u>
	=====	=====	=====

Capital aid from bilateral and multilateral sources to major sectors has been projected as follows:

Bilateral	Education	Health	Agri- culture	Industry & Mining	Trans- port & Comm.	Other	Total
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Canada	71	43	504				618
Denmark		253	1,771				2,024
Finland		5					5
Holland	203						203
Japan				229			229
Sweden	1,291			570			1,861
U.K. (Grants)			949	95			1,044
U.K. (Loans)	1,123	1,880	2,454	361	1,112	1,215	8,145
U.S.A.	625	918	8,697				10,240
Federal Republic of Germany			6,889	462	62		7,413
Sub-Total	3,313	3,099	21,264	1,717	1,174	1,215	31,782
Multilateral							
ADB			1,570	6,835	2,286	64	10,755
ADF					2,570		2,570
EEC - STABEX	3,797		722			398	4,917
EDF	2,958		2,128	1,709	38	1,519	8,352
IBRD	2,562		943	6,646	7,400	309	17,860
UN Agencies	148		31	53		262	494
UNHCR	570					557	1,127
Sub-Total	10,035		5,394	15,243	12,294	3,109	46,075
TOTAL	13,348	3,099	26,658	16,960	13,468	4,324	77,857

The bulk of capital aid (in the form of loans) extended to Swaziland in 1979, was directed towards Natural Resources (US \$26 million), Agriculture (US \$9.1 million) and Industry (US \$2.2 million).

The only reported major multilateral assistance in the form of credit was from the International Development Association in support of the First and Second Educational Projects. \$1.9 million is reported to have been expended during the period April 1979 to March 1980 on building new schools and extending existing schools and furnishing them throughout the country.

The major sources of capital aid in 1979 were the World Bank, the African Development Bank, the European Investment Bank, the European Development Fund, United Kingdom, United States of America, Federal Republic of Germany, Canada and Sweden.

The World Bank provided capital aid to the Rural Development Area project involving machinery, equipment and supplies and for establishing a management unit and monitoring activities. The total expended amount was in the neighbourhood of US \$0.8 million.

An amount of \$2.2 million was expended in 1979 by the National Industrial Development Corporation of Swaziland from the World Bank loan of \$5 million. In addition, approximately US \$0.1 million was expended on the Third Highway project.

The African Development Bank provided assistance to the Rural Development Area project and to the Third Sugar Mill amounting to US \$0.5 million and US \$6.85 million respectively during the period April 1979 to March 1980.

Out of the U.K. soft loan of \$17.6 million \$1.8 million was expended in 1979, on assistance to major sectors with a focus on rural development.

Out of the U.S.A. soft loan of \$7.4 million \$50,000 was expended in 1979 within the agricultural sector, in particular on rural development including nutrition support.

The FRG made a financial contribution of \$6.22 million to the Royal Swaziland Sugar Corporation Ltd. (Agricultural Sector) and provided a loan of \$23.3 million for the construction of the Mnjoli Dam (Natural Resources Sector).

Out of a Canadian soft loan of \$1.65 million, \$396,470 was expended in 1979 within the Agricultural Sector on Dairy Production.

The European Investment Bank provided a loan of \$13.3 million for the Third Sugar Mill. The amount expended in 1979 is not available. Out of a soft loan of \$4.75 million from the European Development Fund, \$2,325,000 was expended in 1979 on an irrigation canal for the Sugar Industry. Several grants have been made by the EDF and the expenditure in 1979 was as follows: \$4.5 million for the purpose of stabilization of export earnings in relation to iron ore (total grant \$12 million). \$322,000 within the Agricultural Sector on rural development (total grant \$3.2 million). \$360,000 within the Educational Sector for construction of buildings for the university and a new Teacher Training College (total grant \$5.1 million). The EDF also provided \$23,500 out of a total credit of \$204,000 as risk capital, aiding small and medium scale enterprises.

Memorandum

From:	PERMANENT SECRETARY, MIN. OF AGRICULTURE AND CO-OPERATIVES.	To:	PERMANENT SECRETARY, ECONOMIC PLANNING AND STATISTICS DEPARTMENT.
Date	5th November, 1980.	Attn:	Mr. T. Nkonyane.
Our Ref.	4	Your Ref.	

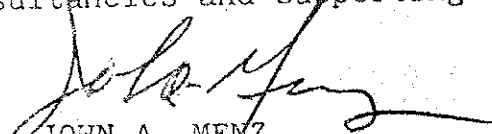
THE THIRD UNDP COUNTRY PROGRAMMING CYCLE (IPF)
1982-86

Attached are briefs of four projects to be executed by FAO and financed out of the UNDP IPF which we wish to be included in the Third UNDP Country Programming Cycle for the five-year period 1982-86. The amount forthcoming from the IPF for the four projects, over the five-year period, amounts to approximately US\$1.84 million.

Three of the four are continuations of on-going projects. These are as follows:

- i. Research for Rural Development SWA/78/015 (Phase II). Phase I of this project terminates September 1982. The proposed Phase II consists of one expert for 39 man-months; supplemental assistance to this project would be forthcoming from the proposed US/AID Inter-cropping Research and Extension Project. IPF cost component - US\$378,840.
- ii. Assistance in Marketing for Rural Development, SWA/78/014 (Phase II). Phase I of this project terminates 31/12/81. With the addition of a Credit Advisor and a Marketing Services Expert (a total of three experts), it is proposed to continue this project half-way through the cycle, or until end June 1984, at which time it will have been localized. IPF cost component - US\$572,800.
- iii. Assistance to the development of Quality Seed Production, GCP/SWA/005-DEN (Phase II). Phase I of this project has been financed by DANIDA trust funds through FAO; it now appears that DANIDA will continue its support through September 1984. Thus, UNDP/IPF funding is requested to finance two Seed Technologists for 27 man-months each, or until the end of the planning cycle. IPF cost component - US\$431,140.
- iv. Cooperative Development Project. This is a new project requesting one advisor to provide assistance to the Department of Cooperative Development and the CCU for a period of five years.

In all the above projects provision has been made for training, fellowships, consultancies and supporting services.


JOHN A. MENZ
FOR PERMANENT SECRETARY

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