Government of the
Kingdom of Swaziland

STRATEGY BRIEF FOR NATIONAL FOOD SECURITY AND AGRICULTURE DEVELOPMENT

HORIZON 2015

SWAZILAND

Food and Agriculture Organization of the United Nations and the
Ministry of Agriculture and Co-operatives

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TABLE OF CONTENTS

LIST OF ANNEXES

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ACP	African, Caribbean & Pacific (Countries)
AEZ	Agro-ecological Zone
AfDB	African Development Bank
AGOA	Africa Growth and Opportunity Act
AIDS	Acquired Immunodeficiency Syndrome
ARD	Agricultural Research Division
ARV	Anti-retroviral (Drugs)
BSAP	National Biodiversity Strategy and Action Plan
CAADP	Comprehensive Africa Agriculture Development Programme
CASP	Comprehensive Agricultural Sector Policy
CBS	Central Bank of Swaziland
CCM	Country Coordinating Mechanism (to administer the Global Fund for HIV/AIDS)
COMESA	Common Market of Eastern and Southern Africa
EDF	European Development Fund
EIU	Economist Intelligence Unit
EC	European Community
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FDM	Foot and Mouth Disease
GDP	Gross Domestic Product
GMO	Genetically Modified Organism
GNI	Gross National Income
GOS	Government of Swaziland
GSP	General System of Preferences
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
KDDP	Komati Downstream Development Project
LDP	Livestock Development Policy
LUSIP	Lower Usuthu Smallholder Irrigation Project
MDG	Millennium Development Goal
MEE	Ministry of Enterprise and Employment
MEPD	Ministry of Economic Planning & Development

MHSW	Ministry of Health & Social Welfare
MHUD	Ministry of Housing & Urban Development
MNRE	Ministry of Natural Resources & Energy
MOAC	Ministry of Agriculture & Co-operatives
MPWT	Ministry of Public Works & Transport
MTEC	Ministry of Tourism, Environment & Communications
MTEF	Medium Term Expenditure Framework
NDS	National Development Strategy
NDTF	National Disaster Task Force
NEPAD	New Partnership for Africa's Development
NERCHA	National Emergency Response Council on HIV/AIDS
NFP	National Forest Policy
NFSP	National Food Security Policy
NGO	Non-governmental Organisation
NMC	National Maize Corporation
NMTIP	National Medium Term Investment Programme
NPDP	National Physical Development Plan
NPFS	National Programme for Food Security
NRRP	National Rural Resettlement Policy
OVCs	Orphaned and Vulnerable Children
PRSAP	Poverty Reduction Strategy and Action Plan
REPA	Reciprocal Economic Partnership Agreement
RPDP	Regional Physical Development Plan
PSMP	Public Sector Management Programme
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAFEX	South Africa Futures Exchange
SEA	Swaziland Environment Authority
SEAP	Swaziland Environment Action Plan
SHIES	Swaziland Household Income and Expenditure Survey
SIPA	Swaziland Investment Promotion Authority
SME	Small & Medium Enterprises
SNL	Swazi Nation Land
SPEED	Smart Programme on Empowerment and Economic Development
SPS	Special Preferential Sugar
SSA	Swaziland Sugar Association
TCP	Technical Cooperation Project (FAO)
TDL	Title Deed Land
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNISWA	University of Swaziland
USD	United States Dollar
VAC	Vulnerability Assessment Committee
WFP	World Food Programme
WFS:fyl	World Food Summit: five years later

WHO	World Health Organization

CURRENCY EQUIVALENTS

Currency Unit	=	Swaziland Lilangeni (SZL); plural = Emalangeni (E)
USD 1.00	=	SZL 6.70 (28 October 2005)

CHAPTER 1 THE SETTING

1.1 The Macro Context

Swaziland covers a land area of 17,364 km^2 and has an elevation range of 60-1860 m above sea level. The country is landlocked and borders the Republic of South Africa and Mozambique. Swaziland is ruled by a King, with legislative powers vested in Parliament. A Cabinet of Ministers and a National Council, whose members are drawn from among the country's traditional leaders, advise the King. Western and traditional Swazi systems of government converge in Parliament, which consists of the House of Assembly and the Senate[1]. The country is divided into four administrative regions: Hhohho, Manzini, Shiselweni and Lubombo. An Administrator, advised by a Regional Council representing the Tinkhundla, heads each regional administration and reports to the Deputy Prime Minister.

Swaziland has a population of 1.1 million, of which 76 percent is rural; approximately 53 percent of the population is female and 47 percent male, while the proportion of those under 15 years is 42.1 percent (2003)[2]. The population size and structure have been significantly affected by the rapid spread of HIV/AIDS. As a result of the pandemic, the population is projected to decline over the next decade[3] : the HIV/AIDS corrected projected population for 2015 is estimated at 1,022,000, which is about 25 percent lower than without correction and still lower than the present population.

Swaziland belongs to the medium human development countries with a Human Development Index (HDI) in 2003 of 0.498 and a HDI rank of 147 in the world. With a Gross National Income (GNI) per capita of USD 1,245 (2002), Swaziland is classified by the World Bank as a lower middle-income economy[4]. Although classified as a middle-income country, it is estimated that 69 percent of the population lives below the poverty line. The average per capita income of the poorest 40 percent of the population is less than USD 230 annually.

Macroeconomic indicators of the performance of the economy over the period from 1990 till 2002 give an overall unsatisfactory picture (Table 1). Swaziland's economy witnessed rapid growth from the early 1970s to the early

1 The House has 55 Inkhundla representatives (or constituency Members of Parliament) and 10 members appointed by the King-in-Council. The Senate consists of 30 members – 10 elected by the House of Assembly and 20 appointed by the King-in-Council. About 360 chiefs provide traditional leadership at the local level, with each chief having his own council (libandla) of deputies (tindvuna). Each Inkhundla represents a number of chiefdoms and has its own council – which includes both elected members and chiefs.

2 CSO Projections based on 1997 Housing and Population Census

3 Population estimates and projections based on the 1997 census have to be corrected, increasing to two percent in 2015 as a result of the combined effect of lower fertility and higher mortality rates due to the high spread of HIV/AIDS. The AIDS related death in 2015 is estimated at 20,000 annually (World Bank 2001), however there are indications that this figure has already been reached. The World Bank in 2001 estimated life expectancy at 38.3 years for the year 2001, compared to the 59.7 years it would have been in the absence of AIDS. The 2004 sero-prevalence study projects that if current trend in HIV infection continues, life expectancy in Swaziland will fall below 30 years by 2010.

4 World Bank Development Indicators 2005

1990s. After the emergence of South Africa from economic isolation and relocation of investments from Swaziland to South Africa, the economic performance has deteriorated. Gross Domestic Product (GDP) grew by an annual average of 7.6 percent in the decade 1968-1978 and 5.8 percent in the period 1979-1989. In the period 1990-2000 the rate declined to 3.4 percent5, with the downward trend continuing to 1.7 in 2001. After a temporary growth of 3.6 percent in 2002, the expansion of economic activity again lost momentum, with growth dropping to 2.9 percent in 2003 and 2.1 percent in 2004. According to the Central Bank of Swaziland (CBS)6 the downward trend is a reflection of the low growth rate in Foreign Direct Investment (FDI), diminished output by the manufacturing sector and a slump in agricultural production resulting from three consecutive droughts. The poor economic development exacerbated the already severe problem of high unemployment, income inequity and poverty. The overall unemployment rate has increased from 15 percent in 1992 to 29 percent in 20017 and 34 percent in 2003. Consumer inflation during the period 1996 -2003 has fluctuated between six and twelve percent, dropped to 3.4 percent average in 2004 and increased again to over 6 percent in 2005. Despite the establishment in 1997 of the Swaziland Investment Promotion Authority (SIPA) to attract and facilitate FDI, the level of inflow to the country remains low. After a period of annual growth in FDI during the 1990s - reaching levels of over USD 100 million -, net FDI inflow decreased to USD 90.2 million in 2000 and to 43.5 million in 20038.

Table 1: Selected Macroeconomic Indicators

	Indicators	1990	1992	2002	2004
1	GDP (constant LCU) (USD million)	1,301	1,355	1,834	2,400
2	Population (thousands)	847	881	1069	1083
3	Per Capita GDP (constant LCU) (1/2=3)	1,536	1,538	1,716	2,161
4	Export of goods and services/GDP (%)	74.8	73.6	60.6	83.1
5	Imports of goods and services/GDP (%)	74.0	98.6	71.4	93.4
6	Trade/GDP (4+5=6)	148.9	172.2	132.0	176.5
7	Total expenditures/GDP (%)	25.5	n.a.	30.0	n.a.
8	Total debt/GDP (%)	27.5	22.1	28.3	n.a.
9	Economically active population (%)	33.2	n.a.	29.0	28.9
10	Unemployment (%)	n.a.	15.0	34.0	n.a.
11	Human Development Index	0.61	n.a.	0.52	0.50

Sources: WB development indicators; FAOSTAT; UNDP (Human Development Report); World Fact Book.

Swaziland's indicators on social development are generally not satisfactory. Public health expenditure in Swaziland, as a proportion of GDP, increased from 1.9 percent in 1990 to 3.0 percent in 2000. Over the same period, per capita total spending increased from USD 33 to USD 56. The allocation from the Ministry of Finance to the Ministry of Health and Social Welfare increased from 6.0 percent of the total government budget in 2000/01 to 7.4 percent in

5 CBS Annual Reports, Quarterly Bulletins, CSO Annual Statistics Bulletin, quoted from Swaziland Development Report (2000)

6 CBS Annual Report 2005

7 Swaziland Household Income and Expenditure Survey (SHIES) 2001

8 WB development indicators

2002/039, which is still lower than the recommendation of the Abuja Declaration that calls for at least 15 percent of the national budget to be allocated to health. Access to proper sanitation and safe water has improved over the past 20 years, but not rapidly. It is estimated that currently about 60 percent of the population has access to safe water and sanitation; however in rural areas this is lower than the average.10

In 2003, an IMF report cited that widening macroeconomic imbalances are straining the country's resources and threatening macroeconomic stability, with an urgent need to restore fiscal discipline and reorient spending toward social sectors to address high rates of poverty, HIV and AIDS and unemployment, which threaten to jeopardize the socioeconomic situation.11

Government has embarked on a number of strategies to address the deteriorating fiscal situation with strategies to strengthen budget formulation and execution, public sector reform and fiscal restructuring. In 2002 the government launched a fiscal restructuring project that seeks to restructure Swaziland's financial system through fiscal and economic reforms that promote economic development. The major process of transformation of the civil service towards increased efficiency, cost effectiveness and productivity took place through the Public Sector Management Programme (PSMP). In 2003/04 the government introduced the Medium Term Expenditure Framework (MTEF), which requires ministries to prepare their budgets on a three year rolling plan instead of only one year. Although the government is exerting an effort, the picture is still very bleak and much more will need to be done if Swaziland is to attain the Millennium Development Goals (MDGs).

1.2 Food Security and Poverty

1.2.1 Food Access

The Annual Vulnerability Monitoring Report 2004 of the Swaziland Vulnerability Assessment Committee (VAC) pointed to increasing vulnerability to food insecurity and livelihood decline problems across larger sections of the country, in particular the Lowveld. The report indicates that up to 348,000 people are vulnerable and food insecure in the country. Food access at household level in Swaziland is undermined by fluctuations in production and price of food, high and increasing level of poverty, skewed income distribution, unemployment and other uncertainties affecting income stream, and the high spread of the HIV/AIDS pandemic. The continuing poor level of maize production further jeopardise food access by vulnerable households. The monitoring of maize meal prices between January 1998 and December 2003 indicates that consumers have had to face a sustained 45 percent increase in the price of the staple food since February 2002. The upward shift in maize prices continues to erode the purchasing power especially of poor households and reduced access to food.

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9 World Bank 2003 as quoted in HSRC 2003.

10 Draft PRSAP 2005

11 Swaziland: Preliminary Conclusions of the 2003 Article IV Consultation Mission (8.10.03).

Although Swaziland is placed amongst the middle-income economies, gains do not benefit everyone equally. With the overall consumption Gini coefficient for 2003 is 61 percent, income distribution is very unevenly distributed (Table 2). In fact, the pattern of accumulation of wealth indicates that only a small percentage of national income is used by the majority of the population. The 2001 Household Income and Expenditure Survey (SHIES) reflects that the richest 20 percent of the population control 56.4 percent of national income, whilst the poorest 20 percent account for only 4.3 percent.

Table 2: Inequality in Income Distribution

Countries/Regions	Gini Coefficient
Swaziland	60.9
Southern African countries range (min-max)	39.6 - 70.7
Sub-Saharan African countries range (min-max)	28.9 - 62.9
North-African Countries range (min-max)	34.1 - 41.0
Asian Countries range (min-max)	24.9 - 49.2
Latin-American countries range (min-max)	37.9 - 60.7
European Union countries range (min-max)	24.4 - 38.5
United States of America range (1998)	40.7

Source: UN Human Development Report 2003

According to the SHIES 2001, 69 percent of the population were absolutely poor, increasing from 66 percent in 1995.12 Poverty incidence was much higher in rural than urban areas, the poverty heads count indices being 76 and 50 percent, respectively. Chronic drought and consequent water shortages resulting in death of animals and crop failures, lack of adequate agriculture land and isolation from markets and limited income generating opportunities and gender restrictions for women to access land and resources were identified by impoverished persons as causes of poverty.13 Poverty is further exacerbated by escalating unemployment, high incidence of HIV/AIDS and widening gaps in rural-urban development.

Employment and remittances have played a vital role sustaining rural and urban livelihoods in Swaziland and indeed are important determinants of food access. While it is difficult to obtain up to date statistics on employment, particularly on the informal sector, it is clear that employment opportunities, while desperately important for livelihoods throughout Swaziland, have been depressed. Over the period 1995-2001 employment opportunities for Swazis in South Africa have declined by 54% and this trend has continued since.

Swaziland's HIV/AIDS prevalence rate amongst 15-49 year old women increased more than ten-fold between 1992 and 2004 from 3.9 percent to 42.6 percent14 . Over 200,000 people are living with HIV out of a population of 1.1 million. As AIDS decimates a whole generation in the 20-49 year age group, extended family relations which provided social safety nets through past crises have been stressed to the breaking point, and in many families only the vulnerable elderly and the children are left alive. Dependency ratios

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12 Methodology differences have cautioned direct comparisons between the 1995 and 2001 SHIES

13 Participatory Poverty Assessment (PPA) of 1997

14 Government of Swaziland, 2004, 9th HIV Sentinel Serosurveillance Report, Ministry of Health and Social Welfare, Mbabane

have grown, with 48 percent of the population now under 18 years. Numbers of orphans in the country have increased from an estimated 20,000 in 2000 to 69,000 in 2004 and are expected to rise to 120,000 in 2010. Community surveys consistently find one-third or more of children in the category of "orphaned and vulnerable" (OVCs), whose numbers are currently estimated at over 150,000. OVCs are food insecure, and cut off from basic services of education and health.

The increased HIV/AIDS infection rate is having a significant impact on the welfare of households, which are expected to become increasingly impoverished as a result of reduced income and the cost of caring for sick family members. According to a MOAC/FSE/UNAIDS study15, the impact of prolonged morbidity and increased mortality on households and productivity on farms through HIV/AIDS has severe ramifications for the subsistence-agriculture sector in Swaziland. The study found that more male heads of households were dying than women - in the ratio 3:2. Under Swazi communal tenure, this has implications for food security in terms of security of tenure of female-headed households and the loss of agricultural knowledge and financial and other resources in terms of gender-based task differences, as women take over as head of household. The study noted a significant reduction of 51 percent of area under cultivation in households that experienced AIDS-related deaths, and 34 percent in household that were HIV/AIDS affected. From the above analysis it is evident that the ability of most households to generate sufficient income to acquire their food requirements is limited.

Persistent shortages and difficulties in accessing it appear to have translated into a significant proportion of the population, particularly in the rural and peri-urban areas, suffering from under-nutrition. According to recent emergency food security assessments, approximately 40 percent of all children are stunted (chronic malnutrition), more than two percent wasted (acute malnutrition) and 14 percent undernourished. At national level, 19 percent of the population is considered malnourished (Table 3). This will have significant long-term effects upon their productivity.

Table 3: Selected Food Security and Poverty Indicators

Indicators	**1992**	**2002**	**% increase 1992-2002**
Total population (millions)	0.88	1.07	22
Number of undernourished (millions)	0.13	0.20	54
Undernourished population (%)	14	19	36
Underweight children 0-5 years old (%) (W/A) *, **	10	14	40
Chronically malnourished children 0-5 years old (%) H/A - stunting*; **	30	40	30
Acute malnourishment (% children under 5) W/H -wasting *,**	0.9	2.2	140
Poverty incidence (people below the poverty line) **	40	69	70

Source: WHO, FAOSTAT; *Last survey 1983/4; **Last regional (four agro-ecological zones) survey 2002; 1992 approx. estimates

15 Ministry of Agriculture and Co-operatives, the Federation of Swaziland Employers and UNAIDS (December 2002) 'The impact of HIV/AIDS on Agriculture and the Private Sector in Swaziland', Jubilee Printers, Matsapha, Swaziland

1.2.2 Food Availability and Nutritional Needs

Before the 1980s Swaziland was largely self-sufficient in its cereal production. In the1990s Swaziland produced 60 percent of its own staple food (maize) requirements, but since 2001 and with the effects of drought and the impact of HIV/AIDS this low figure has further fallen to only 40 percent.16 Maize production varies from year to year, depending on overall and regional rainfall patterns. Production is normally higher in the Highveld and Upper Middleveld areas where rainfall is higher and more reliable compared to the Lower Middleveld and Lowveld. In some years the higher farm-gate prices encourage farmers to plant more area to maize than in other years. Food availability is also increased when regional maize surpluses are available for purchase at low prices, which is helped by a strong Swazi currency.

The 2004 Vulnerability Assessment Committee report estimated the total domestic cereal requirement for the 2004/2005 marketing year17 at 228,000 Mt (5.8% higher than the 215,500 Mt of the year before) and the total domestic cereal availability at 95,900 Mt. This leaves the country with a domestic shortfall of at least 132,100 Mt of cereals. Total planned cereal imports for the same period by the major grain handlers stand at 74,400 Mt. This reduces the deficit to 57,700 Mt. Food assistance for vulnerable households has been a reality in Swaziland in recent years, with an estimated 262,000 people (25 percent of the population) receiving over 28,000 Mt of food aid during 2004/05. During 2005 an estimated 227,000 people in the country were classified as vulnerable and food insecure and food aid requirements for 2005/06 were assessed at about 27,000 Mt.

A measure for nutritional needs and supply is given by the per caput Dietary Energy Supply (DES).

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16 Vulnerability Assessment Committee (VAC) 2004

17 The marketing year starts on 1st April and ends on 31st March of the following year.

Table 4 shows a 4.2 percent DES increase over the period 1993-2001 from 2489 kcal/day in 1993 to 2593 kcal/day in 2001, which increase is almost entirely due to the increase of animal products. Within the group of vegetable products relative strong increases are shown for rootcrops, pulses, oilcrops and alcoholic beverages, whereas cereals and fruits have decreased. The DES Swaziland is one of the highest in Africa, much higher than the average DES of 2150 for sub-Saharan Africa, and not far from the average DES of 2850 of the group of countries in transition to the top group of industrial countries hat have an average DES of 3340 kcal/day18. However, the proportion of the population below minimum energy requirements increased from ten percent in 1990 to twelve in 2000, with 16 percent recorded in between. In view of the recurrent droughts of the early 2000s it is likely that this percentage has again increased.

18 FAOSTAT

Table 4: Per Caput Dietary Energy Supply (DES) 1993-2001 and Targets 2015

DES Components (kcal/day)	DES 1993	DES 2001	% increase 1993-2001	% share 1993	% share 2001	DES aim 2015	DES increase required 2001/15	% increase required 2001/15	% share 2015 aim
Total Availability	**2489**	**2593**	**4.2**	**100**	**100**	**3000**	**407**	**12**	**100**
Total Animal Products	***289***	***378***	***30.8***	***11.6***	***14.6***	***750***	***372***	***98***	***25***
Total Vegetable Products	***2200***	***2215***	***0.7***	***88.4***	***85.4***	***2250***	***35***	***2***	***75***
Cereals & products	1234	1166	-5.5	49.6	45.0	850	-316	-17	28
Rootcrops & products	34	45	32.4	1.4	1.7	150	105	233	5
Pulses & products	42	57	35.7	1.7	2.2	100	43	75	3
Treenuts & products	0	10	100	0.0	0.4	30	20	200	1
Oilcrops (ex. products)	30	47	56.7	0.4	1.0	70	23	49	2
Fruits & products	67	58	-13.4	2.7	2.2	150	92	159	5
Vegetables & products	19	19	0	0.8	0.7	100	81	426	3
Sugar & sweeteners	530	544	2.6	21.3	21.0	350	-194	-36	12
Alcoholic beverages	92	139	51.1	3.7	5.4	100	-39	-28	3
Vegetable oil & products	147	116	-21.1	5.9	4.5	300	184	159	10
Animal fat & products	21	19	-9.5	0.8	0.7	50	31	163	2

Source: FAOSTAT and 2015 crude targets Home Economics Section, MOAC

Although Swaziland does not have official DES targets, the general strategy is to increase overall energy supply and in particular the share of protein-rich and other healthy components that improve and diversify diets. The supply and consumption of some components, notably sugar and alcoholic beverages, are currently very high in Swaziland, roughly twice the global and South African average. There is general consensus in Swaziland that the DES components that should increase include vegetable oil (low compared to South Africa), fruits, vegetables, and animal products. An ideal dietary composition of the DES would be based on roughly 25 percent of cereals, 25 percent of animal products, such as meat, eggs, fish, and milk, 10-15 percent of vegetable oil, 10-15 percent sugar, 5-10 percent of rootcrops and pulses, 5-10 percent of fruit and vegetables, with other minor components making up the balance.

Table 4 gives an approximate indication of provisional 2015 targets and the required changes in the DES components.

1.3 The Agricultural Sector

1.3.1 Agriculture in the Economy

Agriculture is the backbone of the Swazi economy and is critical for achieving the overall development objectives of the country (

Table 5). The agriculture sector of Swaziland is acutely dualistic. A dynamic commercial sub-sector established on Title Deed Land (TDL) that occupies 26 percent of the land, holds an estimated 90 percent of available irrigation infrastructures, and uses modern technologies to produce mainly cash crops. A traditional sub-sector, based on communal tenure in the Swazi Nation Land (SNL) involves semi-subsistence smallholder agriculture with communal grazing. The majority of the population in Swaziland live in farm households located on communal Swazi Nation Land (SNL) and most of them are engaged in low-productivity subsistence agriculture and animal husbandry.

The agricultural sector's share of GDP decreased from about one-third at independence to less than nine percent in 2003. Agriculture is far more important for Swaziland's population and for national economic development than its contribution to GDP suggests. Crucially, agriculture plays a key role in the lives of the majority of the population, since over 70 percent of the population and households rely on agricultural output as a major source of income and food security, either as small-scale producers or as recipients of income from employment on medium and large-scale farms and estates.

Commercial TDL agriculture remains the principal catalyst for agricultural economic development and income generation. Commercial estates generate more than 70 percent of all agricultural output. The share of crop production on SNL of total agricultural output has dropped from 33 percent in 1996 to 14 percent in 2003. Commercial estates employ about 20,000 people, whereas about 650,000 people depend to a greater or lesser extent on the traditional subsistence sector. The contribution from animal production to agriculture is relatively minor, in the order of 10-15 percent. Coming under increased pressure, SNL agriculture that has generally met its own food requirements in the past is increasingly unable to cope. The challenge now is how to increase productivity and promote increasing cash-income opportunities on SNL so that it contributes to meeting the food, income, employment, and export earnings of the people.

Although the contribution of agriculture to GDP is substantially less than the 35 % of the manufacturing sector, agricultural output forms the raw material base for about one third of value added within the manufacturing sector. Agriculture and agriculturally-based manufacturing also contribute substantially to national export earnings, thereby allowing increased government expenditure through their contributions to the direct and indirect tax base. Furthermore, agriculture also underpins much of the service sector.

The contribution of agriculture to total exports and imports decreased over the period 1990-2002 by 7 and 70 percent respectively (

Table 5). The value of agricultural exports in 2003 decreased by 55 percent compared to 1990 and imports registered a decrease of 15 percent in 2003 compared to its value in 1990. The agricultural trade balance changed from a surplus status of about USD 244 million in 1990 to only USD 71 million in 2003. The main agricultural products imported by Swaziland are maize, wheat, vegetables, dairy products and other food commodities. In a normal year, roughly 60 percent of the food consumed in the country is imported. For maize, the main staple food, imports averaged about 30,000 Mt over the last six years. The main agricultural products exported are sugar, citrus, canned fruits and meat.

Table 5: Importance of the Agricultural Sector to the Economy

	1990	2000	2001	2002	2003	% growth 1990-2002/3
Agriculture, value added (% of GDP)	13.3	15.6	16.8	n.a.	12.2	-8.3
Agricultural population (Livelihood from agric.)/total pop.	39.7	34.0	33.5	32.8	32.2	-17.9
Economically active in agriculture (% of total active pop.)	39.5	33.9	33.3	32.9	32.3	-17.8
Agricultural Products, Total Exports (Value in USD million)	345	303	270	141	157	-54.5
Agricultural Products, Total Imports (Value in USD million)	101	208	166	164	86	-14.9
Agricultural export/Total export	14.6	17.2	n.a.	13.6	n.a.	-6.9
Agricultural import/Total import	56.9	32.1	n.a.	14.7	n.a.	-69.6
Agriculture export (% of GDP)	39.1	21.7	21.5	11.9	n.a.	-59.6
Agriculture expenditure/Total expenditure	n.a.	6.1	7.0	5.9	5.2	

Source: FAOSTAT, World Bank Indicators

About 75 percent of the country's population lives in rural areas, and approximately 35 percent of the population depends for its livelihood on agriculture (Table 6). The projected population growth over 2000-2010 is only 17 percent of the 1990-2000 growth; rural growth will almost come to a standstill. The number of people economically active in agriculture and the number active in other sectors have increased over the period 1990-2000 by 9 and 39 percent respectively, but over the period 2000-2010 the growth of people economically active in agriculture will be negative and the growth of numbers active in other sectors reduced to an increase of only 17 percent. The ratio of economically active in agriculture to economically active in other sectors has decreased with 21 percent over the period 1990-2000 and is projected to decrease by a further 23 percent over 2000-2010.

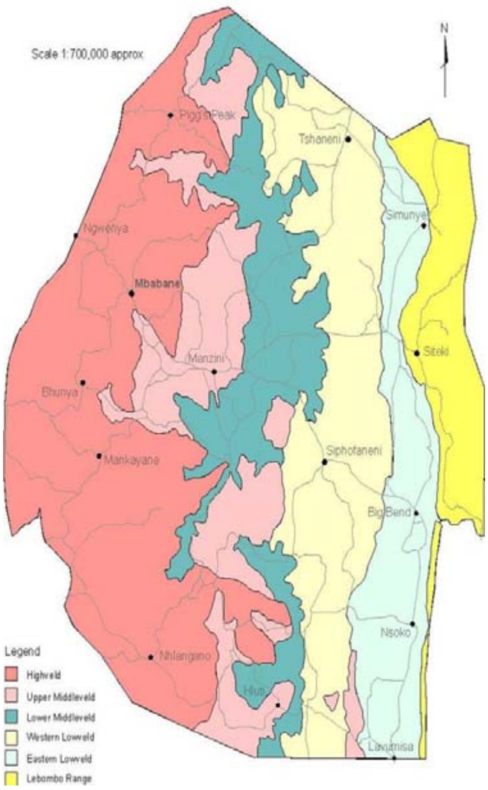
Table 6: Population Structure and Livelihood from Agriculture

Components of Population	1990	2000	2010	% growth 1990-00	% growth 2000-2010
Total population (000)	847	1044	1084	23.3	3.8
Rural population (000)	653	802	812	22.8	1.2
Urban population (000)	194	242	272	24.7	12.4
Rural/Total population (%)	77.1	76.8	74.1	-0.4	-3.5
Total economically active population (000)	281	357	386	27.0	8.1
Economically active in agriculture (000)	111	121	109	9.0	-10.0
Economically active in other sectors (000)	170	236	277	38.8	17.4
Economically active population/Total population (%)	33.2	34.2	35.6	3.0	4.1
Economically active agriculture/Active other sectors (%)	65.3	51.3	39.4	-21.4	-23.2
Economically active agriculture/Total active (%)	39.5	33.9	28.2	-14.8	-16.8
Agricultural population (livelihood from agriculture)	336	355	304	5.7	-16.4
Non-agricultural population (livelihood other sectors)	509	688	780	35.2	13.3
Agricultural population (agric. livelihood)/Total pop. (%)	39.7	34.0	28.0	-14.4	-17.6

Source: FAOSTAT

1.3.2 Land Use, Farming Systems and Institutions

Figure 1: Agro-ecological Zones of Swaziland



Swaziland has diverse physical features that cause a great variety of climatic conditions corresponding with six agro-ecological zones[19]: the Highveld, the Upper and Lower Middleveld, the Eastern and Western Lowveld and the Lubombo Range. The agricultural productivity potential of the different agro-ecological zones under rainfed conditions varies widely due to the large variation in rainfall between the zones. Areas suitable for cultivation are rather limited – estimated at about 15 to 20 percent - due to the terrain conditions and the types and qualities of soils.

Soils suitable for crop production occur in all agro-ecological zones, but distribution and soil types vary strongly, as it is related to slope and terrain conditions. Suitable soils in the Highveld and Upper Middleveld are found in basins and other relatively level parts. The basalt-derived soils of the Eastern Lowveld are generally much more suitable for irrigated crop production than the sandstone and claystone-derived soils of the Western Lowveld, which include a high percentage of duplex soils (Planosols) with poor chemical and physical properties. Soils under sugarcane in the Eastern Lowveld give generally less problems and higher yields compared to the soils of the Western Lowveld. Crop production in the Lubombo Range is restricted to the non-eroded plateau remnants with very suitable deep soils, whereas the incised valleys with shallow soils are unsuitable.

The water that Swaziland can extract from its five main river basins is limited by agreements with South Africa and Mozambique. As a member state, Swaziland recognises the 1995 and 2004 revised SADC Protocol on Shared Watercourse Systems, which resulted from the Dublin Conference and Agenda 21. The availability of groundwater is constrained by the physical characteristics of the aquifers, and virtually all irrigation in Swaziland is based on surface water.

The main land use in Swaziland is extensive grazing: communal extensive grazing covers 50 percent of the country and commercial ranching 19 percent. Grazing takes places on natural grasslands, savannas and woodlands, which areas are also used for community forestry. Small-scale subsistence rainfed agriculture - including grass-strips, homesteads and

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19 FAO/MOAC, 1994. Land Use Planning for Rational Utilization of Land and Water Resources. Various Field Documents. FAO/UNDP/GOS Project SWA 89/001.

infrastructure - covers about 12 percent, whereas large-scale irrigated and rainfed crop production cover approximately 4 and 2 percent respectively. Plantation forestry (including infrastructure) covers about 8 percent, and the remaining 5 percent is made up of national parks and urban areas (Table 7).

Table 7: Main Land Uses in Swaziland

Code	Groupings of main land uses	ha	%
SA	Small-scale subsistence crop agriculture (rainfed annual field cropping)	214,000	12.3
LA	Large-scale commercial crop agriculture (irrigated and rainfed field/tree cropping)	104,000	6.0
CH	Extensive communal grazing	867,000	50.0
RH	Ranching	332,000	19.1
F	Plantation Forestry	140,000	8.1
P	Parks, Wildlife Management	67,000	3.9
S	Residential, Industry, Recreation	8,000	0.5
W	Water Reservoirs	4,000	0.2
Total		1,736,000	100

Source: FAO/MOAC, 1994: Land Use Planning for Rational Utilization of Land and Water Resources. Various Field Documents, FAO/UNDP/GOS Project SWA 89/001.

The net arable area of Swaziland is estimated between 180,000 and 240,000 ha (Table 8). However, the total cultivated area in 2002 is estimated at only 131,000 ha, which indicates that a large proportion of potentially arable land is fallow, currently not used, or never used. The total cultivated rainfed Swazi Nation Land (SNL) in 2002 is estimated at about 80,000 ha, of which maize covered 68,000 ha and all other crops about 12,000 ha, including 1,000 ha of fruit trees. The areas of irrigated SNL and rainfed TDL are relatively minor[20]. Almost all crop production on TDL is irrigated, of which in 2002 about 46,500 ha of sugarcane, including smallgrowers, and about 2,500 ha of citrus. Small-scale irrigation is expanding and is increasingly using improved sprinkler and micro-irrigation technology.

Table 8: Arable and Cultivated Land in Swaziland (ha)

AE Zone	Total area	Estimated net arable area		Total rainfed 2002 (mainly SNL)	Total irrigated 2002 (mainly TDL)	Total cultivated 2002
		FAO1994	FAO 2003			
Highveld	555,200	28,000	27,800	26,500	400	27,000
Middleveld	486,100	67,000	58,300	28,700	5,500	34,000
Lowveld	538,200	127,000	80,700	21,600	44,500	66,000
Lubombo	156,500	14,000	15,400	3,700	100	4,000
Total	1,736,000	236,000	182,000	80,500	50,500	131,000

Sources: FAO/MOAC 1994; FAO-CASP 2003; Central Statistical Office 2004; Swaziland Sugar Association Annual Report 2003.

The land tenure system in Swaziland is divided into two main categories: communal land held in trust by the King, called Swazi National Land (SNL), which amounts to about 74 percent of the area, and land that is under Title

20 The irrigated area of SNL in 2002 according to agricultural statistics is 1,700 ha, but this seems a low estimate, as the SNL smallgrowers area under sugarcane is already recorded at 3,000 ha (SSA, 2002/03). The remaining irrigated SNL area (small-scale and micro non-sugarcane) is estimated at no more than 1,500 ha (Lankford, 2001: The Rise of Large-scale Formal Smallholder Irrigation Schemes; an Issues Paper for Swaziland, School of Development Studies, University of East Anglia, UK). The total of rainfed crops (cotton, pineapple, tobacco) on TDL is statistically assessed at less than 1,000 ha (some 400ha of pineapple in the Middleveld and 400 ha of cotton in the Lowveld). No estimates are available of commercial TDL planted to maize; the FAO/WFP annual food security mission uses an estimate of only 1000 ha.

Deed (TDL), accounting for the remaining 26 percent. However, not all land under SNL is communally used: about 25 percent is controlled by the MOAC, used by parastatals, or leased to companies. The TDL area is held as freehold and located mainly in the Highveld and Eastern Lowveld. The TDL area is mainly used for commercial tree plantations and livestock production, as well as for the cultivation of sugarcane, citrus, pineapple, vegetables, and fodder crops. Proportionally, there is less grazing on TDL than SNL, but ranching is still the main land use on TDL

Table 9: Land Tenure Types in Swaziland

Land Tenure Type	ha	%
Swazi Nation Land, *sensu stricto*		
- controlled by chiefs, communal	847,000	48.8
- controlled by chiefs, non-communal	14,000	0.8
- controlled by Tibiyo	8,000	0.5
- leased to companies or individuals	14,000	0.8
Subtotal	883,000	50.9
Swazi Nation Land, purchased		
- controlled by chiefs, communal	101,000	5.8
- controlled by Tibiyo	42,000	2.4
- controlled by National Trust Commission	46,000	2.6
- leased to companies or individuals	98,000	5.7
- controlled by Ministry of Agriculture	118,000	6.8
Subtotal	405,000	23.3
Title Deed Land, urban area	13,000	0.7
Title Deed Land, rural area	424,000	24.4
Crown Land	7,000	0.4
Water Reservoirs	4,000	0.2
Total	**1,736,000**	**100**

Source: FAO/MOAC, 1994: Land Use Planning for Rational Utilization of Land and Water Resources. Various Field Documents, FAO/UNDP/GOS Project SWA 89/001.

The Ministry of Agriculture and Cooperatives (MOAC) is responsible for overall policy and development of the agriculture and livestock sectors. The Ministry is organized into three departments: Agriculture, Veterinary and Livestock Services, and Cooperatives and Marketing.

The Agriculture Department comprises three major divisions: Extension, Research and Technical; separate divisions include the Land Use Planning Section and the Economic Planning and Analysis Section. The Agricultural Extension Service is organized on the basis of four administrative regions, each broken down into a number of Rural Development Areas, and further down into Extension Areas. Agricultural research coverage focuses on applied and adaptive research on crops and livestock production (mainly on pasture), as well as socio-economic issues. The Land Use Planning Section provides services relating to land use planning, including soil survey and land suitability assessments, and is also responsible for the engineering design of small dams, conservation works and planning for small irrigation schemes, which is overlapping with the Irrigation Section. The Land Development Section is responsible for undertaking minor works involved in conservation structures, rural roads and small-scale irrigation schemes. The Economic Planning and Analysis Section is mandated to appraise and monitor agricultural development programmes and to provide planning support.

The Veterinary and Livestock Services include disease control and prevention, diagnostics and investigations, meat hygiene, veterinary education, as well as livestock husbandry. Field organization in the four regions is around dip-tank areas, where the dipping of animals is provided as a free service and the incidence of diseases and livestock activities is monitored.

The aim of the Department of Cooperatives and Marketing is to stimulate and increase people's participation in the cooperative movement using the resource mobilisation capacity of the cooperatives as a vehicle. The establishment of viable cooperative societies will enhance income generation and increase employment opportunities resulting in poverty alleviation and economic growth. The functions of the department are to educate and train members, carry out audits, inspections, dispute settlements and other regulatory functions, register cooperatives, and provide marketing services to both cooperatives and individuals.

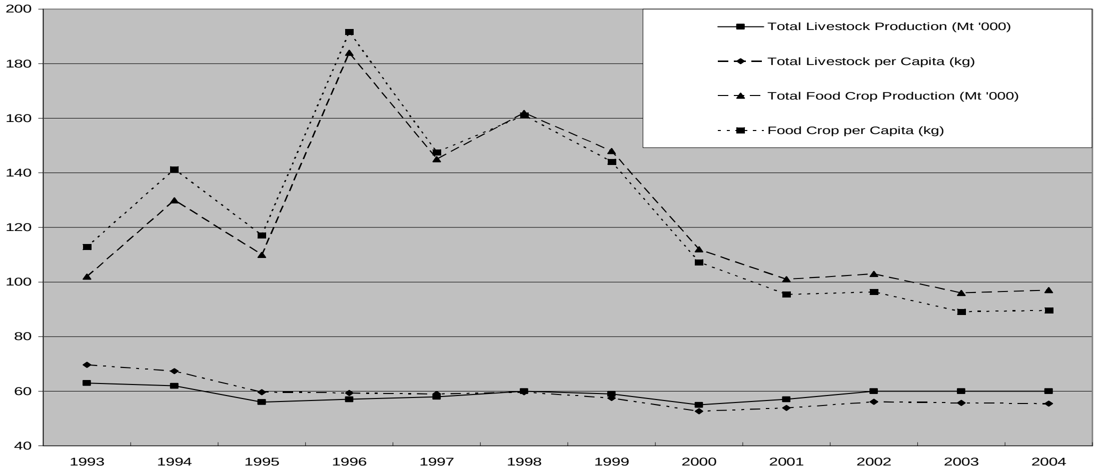
A study completed in February 2001 recommended an organizational re-structuring of MOAC into the following departments: Land Use Planning and Development, Crop Production and Extension, Livestock Production and Extension, Veterinary Services, Policy Development and Planning, and Human Resources and Administration. With the suggested transfer of the existing Department of Cooperatives and the Home Economics Section to the Office of the Deputy Prime Minister, the Ministry would be re-named Ministry of Agriculture.

1.3.3 Domestic Agricultural Production

Agricultural production is very much dependent on climatic conditions and water availability. Overall rainfall in recent years (2001-2004) has been below normal levels and the resulting droughts in parts of the country have been responsible for a generally poor agricultural performance. Crop production mainly consists of sugarcane (the main cash crop on TDL) and maize (the main staple crop on SNL). Other important cash crops include citrus and pineapple. Cotton used to be widely grown on both TDL and SNL, but has very much declined in the last few years, as has tobacco.

Figure 2 shows the strongly fluctuating total and per capita food crop and livestock production. Food crops do not include the commercial sugarcane and fruit production (citrus and pineapple), which would distort the picture as the production of sugarcane is about 20 times larger than all other crops together. Also fruit production alone is larger than the combined grain, rootcrops, pulses, oilseeds and vegetables production. The per capita agricultural production index of 2003 (FAO) is 95.4 compared to the reference level 100 in 1999/2001. The drop is even more significant when comparing with the 142.5 index of 1989/91.

Figure 2: Total and per Capita Food Crop and Livestock Production 1993-2004



Source: FAOSTAT

Table 10 shows the production and value of major crops on SNL and TDL. The cultivated areas of citrus, which includes grapefruit, orange, soft citrus and lime, dropped from over 3,000 ha in 1996 to less than 2,000 ha in 2003. Citrus is an important nutritious crop that currently faces problems due to drought, occurrence of pests and unfavourable foreign exchange rates. Groundnuts, pumpkins, beans, sweet potatoes and vegetables follow maize as the most important subsistence crops on SNL. Sorghum, cowpeas, melons, watermelons, cassava, bananas, peaches and avocados are also produced, but in limited quantities. Although most of these crops are economically not very important, they contribute to the agricultural diversification pattern in Swaziland and hence to food security and nutrition.

Table 10: Production of Major Crops on TDL and SNL

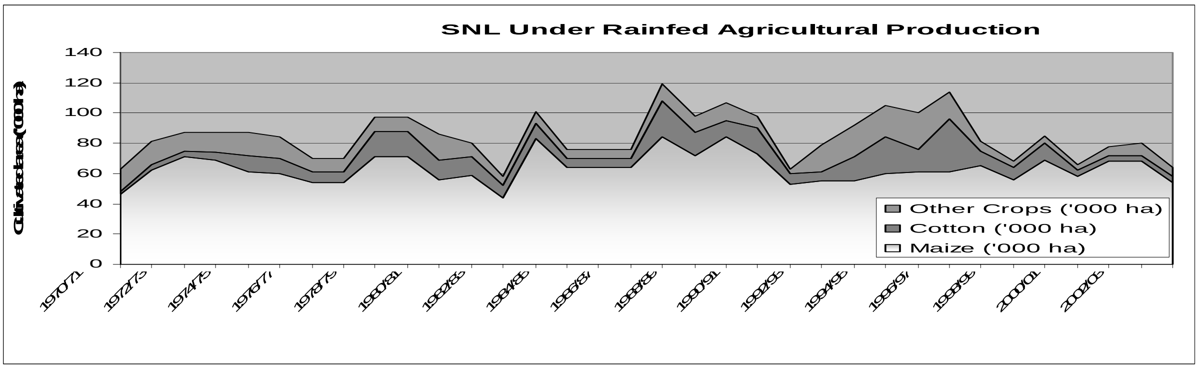
Crop	Year	Area harvested (ha)	Product (Mt)	Total Value (E'm)
TDL				
Sugarcane*	1997/98	38,494	3,885,574	888.0
	1998/99	40,474	3,887,010	1,013.1
	1999/00	42,606	4,322,618	1,086.2
	2000/01	43,547	4,441,907	1,095.1
	2001/02	43,855	4,178,867	1,396.0
	2002/03	45,126	4,608,933	1,714.6
	2003/04	48,061	5,046,525	1,699.1
	2004/05	49,727	4,883,961	1,584.3
Citrus**	2000	2,616	100,977	80.8
	2001	2,514	100,072	99.7
	2002	2,516	89,854	84.4
	2003	1,920	74,618	99.8
	2004	1,875	70,955	97.8
Pineapple	1997/98	184	8,439	2.4
	1998/99	210	13,581	5.5
	1999/00	271	13,608	5.0
SNL				
Maize	1997/98	65,149	125,205	n.a.
	1998/99	55,969	107,340	n.a.
	1999/00	68,533	112,779	n.a.
	2000/01	57,851	82,436	n.a.
	2001/02	67,898	67,639	n.a.
	2002/03	71,500	62,500	n.a.
	2003/04	61,000	71,000	n.a.
Cotton	1997/98	9,627	16,885	n.a.

Crop	Year	Area harvested (ha)	Product (Mt)	Total Value (E'm)
	1998/99	8,168	14,930	n.a.
	1999/00	10,654	7,469	n.a.
	2000/01	3,783	6,000	15.4
	2001/02	3,598	3,959	1.,9
	2002/03	3,500	1,221	4.8
	2003/04	2,800	3,209	9.9

Sources: Annual Statistical Bulletin 2000; Swaziland Citrus Board; Swaziland Cotton Board; Central Bank of Swaziland Annual Report 2005; * Value of Sugar and by-products (molasses); ** No complete records available for Citrus 1997/2000.

Figure 3 shows the agricultural land used for rainfed production on SNL divided in three components: maize, cotton and other crops. The statistical records on SNL also include the land used for agricultural production from squatters on TDL, which amounts to about ten percent of the SNL total . The records show systematic and incidental errors and inconsistencies, in particular with respect to the estimates of land under cotton,. However, the most significant fluctuations are to a large extent related to drought, e.g. the decrease in 1991/92. The recent decrease since 1998 is largely due to the decline of cotton.

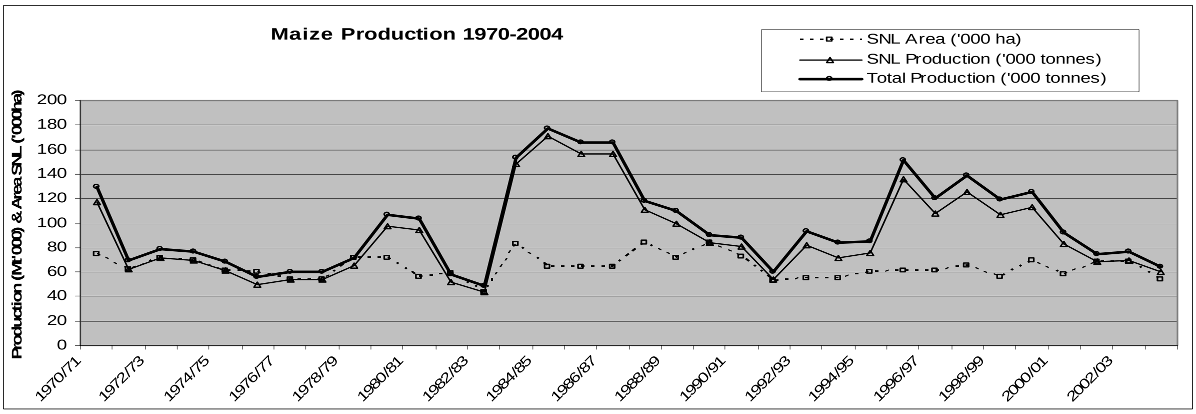
Figure 3: SNL under Rainfed Agricultural Production 1970-2004



Sources: GOS-Central Statistical Office: Annual Statistical Bulletins 1970-2000; Annual Agricultural Survey 1980-2003; FAO/WFP Crop and Food Supply Assessment 2004; Swaziland Cotton Board Assessment 2003/04.

Maize is the traditional subsistence crop of Swaziland and is mainly grown rainfed on SNL. It shows wide variation in annual yields, which are significantly higher and more reliable in the high rainfall zones of the Highveld and Upper Middleveld.

Figure 4: Maize Production 1970-2004

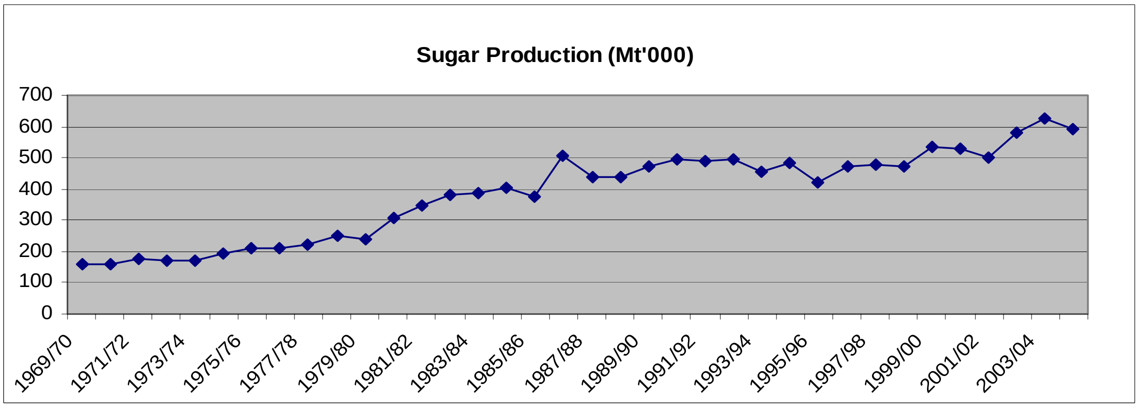


Sources: GOS-Central Statistical Office: Annual Statistical Bulletins 1970-2000; Annual Agricultural Survey 1980-2003; FAO/WFP Crop and Food Supply Assessment 2004.

Levels of maize production over the last four years (2001-2004) have dropped to around 70,000 Mt/annum from more than 110,000 Mt/annum average over the period 1995/2000. Imports over last ten years have been in the order of 20-50,000 Mt/annum. Figure 4 shows the maize production over the period 1970-2004. The production figures consist of the traditional production on SNL (inclusive of squatters on TDL), and the commercial production on TDL. The existing statistical record of production on TDL is scanty, and covers only the period from 1983 till 1994, where it contributes between 7 and 15 percent of the total maize production. For the other years of the period shown it is generally assumed that ten percent of the total maize production is derived from commercial TDL. Although the record shows inconsistencies, it suggests that the SNL area planted to maize has decreased from around 70-80,000 ha in the 1980s to around 60,000 ha in the 1990s and has remained at that level. The maize yield on SNL over the period from 1993 till 2003 varied from 1.0 Mt/ha (in 2002 and 2003) to 2.2 Mt/ha (in 1996), with an average of 1.6 Mt/ha.

Cotton has always been one of the major rainfed cash crops, in particular in the Drylands of the country, the Lower Middleveld and the Lowveld. In the late 1980s, output was between 25,000 and 30,000 Mt/annum with most of the production coming from large-scale producers. Production declined in the early 1990s, mainly as a result of drought and reductions in production by large-scale farmers. However, output increased again in the mid to late 1990s, driven mainly by the small-farmer production. In the last couple of years there has hardly been any cultivation of cotton on TDL. The SNL area planted to cotton has decreased to less than 5,000 ha, after the closing down in 2002 of the only ginnery in the Lowveld. Although production has declined, cotton still plays a role in the food security of households in the Lower Middleveld and Lowveld. The decline of the cotton production is probably a reflection of the lack of profitability of rain-fed cropping. The development of irrigated cotton should allow for more consistent yields, but there are a number of issues that will have to be addressed, such as labour availability, willingness to work on commercial cotton plantations, and the high cost of labour in Swaziland, which will be a significant cost disadvantage when compared with countries as Mozambique or Zambia.

Figure 5: Sugar Production 1969-2005



Source: Swaziland Sugar Association: Annual Reports 1970-2005

Sugar is the most important agricultural produce of Swaziland and the area under sugarcane has continuously increased since the sixties. In 2004 the milestone of 50,000 ha under irrigated sugarcane was achieved. 2004 also saw the production of sugarcane reaching 5 million Mt. All sugarcane is processed in Swaziland and sugar products form a very important export commodity (Figure 5).

The contribution of the livestock sub-sector to the agricultural sector GDP is about ten percent. Beef and other livestock products contribute about one percent to total exports. In Swaziland there are two broad livestock production systems, namely the commercial system and the traditional system. The commercial TDL sector manages about 14 percent of the total cattle and 5 percent of the small stock whereas the traditional SNL system carries the rest, 86 percent of all cattle and 95 percent of all small stock. The production of small ruminants, pigs and poultry is a still neglected part of livestock production, but showing potential. Until recently almost 50 percent of the livestock and livestock products sold in the formal market was imported, mainly from South Africa. The SNL rangeland is overstocked and deficient in protein, resulting in low fertility, high mortality, poor animal performance and stunting. The number of livestock has been declining in recent years due to droughts and overgrazing of rangelands resulting in less productivity, and to some extent also because of allocation of land for human settlement and agricultural schemes. Increased pressure on traditional grazing land will force animal husbandry to become more intensive and commercially oriented requiring more expenditure on labour, better technology and inputs. The development of the cattle population in Swaziland has shown a continuous increase from less than 500,000 in 1966 to a peak of 753,000 in 1992, followed by a decrease to 600,000 in 2003.

Swaziland Meat Industries, which is the only processor licensed for export, is operating well below capacity due to cattle supply scarcity. As a result, it can only supply a small proportion of the 3,360 Mt EU beef quota under the Lomé Protocol - despite being exempt from customs duty and a 90 percent levy rebate. The outbreak of foot and mouth disease (FMD) at the end of 2000, led to a temporary suspension of exports to the lucrative European market, for the better part of 2001. As a result of a change in the EU requirements, Swaziland is now able to import weaner cattle and, provided that they meet the appropriate veterinary standards and follow certain rules including a fattening period in Swaziland, these cattle are eligible to meet the Swaziland EU quota. In any event, in order to meet the quality standards of the EU market, imported cattle for slaughter are required to have been through a feedlot. Table 11 present the currently strongly fluctuating trend of production and exports.

Table 11: Beef Production and Export 2000-2004

Beef Production and Sales	2000	2001	2002	2003	2004
Production (Mt)	7,210	3,047	5,383	9,023	4,116
Exports (Mt)	1,247	479	742	780	223
Value of Exports (E'1000)	19,109	3,722	15,400	29,914	7,612
Domestic Sales (Mt)	2,034	4,590	5,158	8,249	6,023

Source: Swaziland Meat Industries

Efforts to improve the SNL livestock industry need to address production and marketing issues concurrently. If the two aspects are not closely integrated, producers will not have incentives to produce more. In addition the industry must be able to respond to market forces as they occur both regionally and internationally. The supply chain between producers and consumers is quite clear and regular for the TDL production system, but the same cannot be said for SNL producers. The latter do not seem to be conversant with marketing strategies and honouring contracts. As a result much of the time they are anxious about markets issues and start to operate on the basis of short lived and weak market signals that lead to cyclic gluts and shortages.

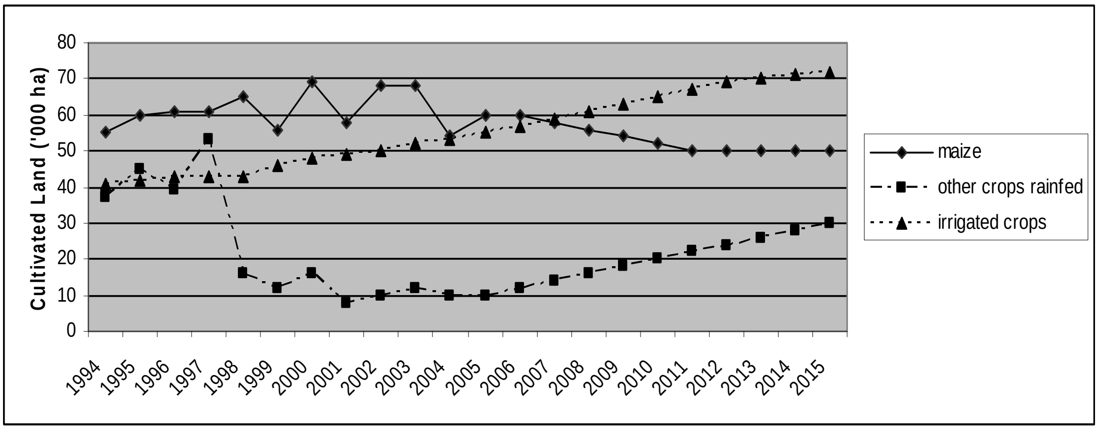
Agricultural development and food security in the period 2006 to 2015 will depend on a number of factors that can only be partially controlled or contained. These include: (1) the impact of HIV/AIDS on agricultural development, (2) effects of drought and climate change, (3) government commitment to invest in the agricultural sector, (4) availability of an agricultural policy and efficient action plan, (5) improvements in agricultural practices such as ploughing and weeding, (6) improvements in range management and animal production, and (7) improvements in marketing and credit.

In order to identify the most likely scenario, several assumptions have to be made with respect to the above factors. It is assumed that an enabling environment is created in which conducive policies are developed, and investment and marketing are promoted. It is further assumed that the development of commercial smallholder irrigated agriculture will continue under the large Komati Downstream Development Project (KDDP) and Lower Usuthu Smallholder Irrigation Project (LUSIP) irrigation schemes. Current KDDP development is behind schedule and 3,500 ha or two-thirds of the total downstream development was still outstanding at the end of 2004. The first phase of LUSIP will add 6,500 ha to the total irrigated land. Apart from these two large schemes there will also be development of smaller schemes. It is therefore assumed that the increase of irrigated land will continue the same rate as in recent years, about 2,000 ha per annum. It is assumed that from about 2013 the increase will flatten out to 1,000 ha per annum when the major LUSIP works will have been completed. As a result of this continuous increase, the total irrigated area is expected to reach 72,000 ha in 2015. It is assumed that the large majority of this land will still be under sugarcane, but it is not excluded that a substantial proportion of the total irrigated land will be under other crops, e.g. cotton.

The next assumption is an overall reduction of SNL cultivation and production of maize and most other rainfed crops, as the effects of HIV/AIDS combined with the effects of drought and climatic change will be too dramatic to be fully coped with. Apart from a reduction of the area cultivated, a yield reduction is also expected due to the weakened labour force. It is assumed that this effect will be most severe in the first five years, and will level out after 2010 when the HIV/AIDS situation may show the first signs of recovery. With respect to cotton, it is assumed that measures will be taken to enable a modest revival of the rainfed cotton production, with a functioning ginnery, appropriate arrangements for credit, and satisfactory price levels. Based on these assumptions, the most likely scenario is that irrigated crops and rainfed cotton increase, but maize and other rainfed crops decrease (

Figure 6).

Figure 6: Likely Scenario of Changes in Cultivated Land 2005-2015



1.4 Rural Infrastructures and Support Services

Selected indicators of rural infrastructure are presented in Table 12. The Government has identified transport as a priority area to complement and support its development plans set out in the NDS. As a landlocked country, the transport sector comprises of roads, railways (300 km inside Swaziland and important to the sugar industry exports) and civil aviation. In terms of contribution to the national GDP, the transport sector contributed six percent in 2003. Expenditure on transport infrastructure has averaged 37 percent of the national budget. In general Swaziland has a good network of roads and most of the main road to South Africa has been upgraded to dual carriageway standard. The proclaimed road network, of which 37 percent is paved and comprising main and district roads, totals 3167 km (2004) with a further un-proclaimed network comprising 1,560 km of agricultural feeder roads. These roads are generally "farm-to-market" roads, and serve as the only available means of access for a significant portion of the rural population. Provisions to maintain feeder roads did previously not exist, but now the Ministry of Public Works and Transport (MPWT) does periodical grading and other maintenance, and there are proposals to establish a dedicated feeder roads budget. The number of registered vehicles increases annually with about five to six percent, which increase is also benefiting the rural areas. Currently, motor cars form 40 percent of all vehicles and light duty vehicles 30 percent.

Table 12: Selected Indicators of Rural Infrastructure

Selected Indicators of Rural Infrastructure	**1991**	**1995**	**Last available data**
Access to improved sanitation (% of rural population)	28	35	*40 (2005)
Access to improved functional water supply (% of rural population)	42	46	54 (2005)
Access to improved sanitation & water supply (% of population)**	n.a.	43	52 (2002)
Proclaimed roads, total network (km)	2817	2896	3167 (2004)
Proclaimed roads, total paved (tarred) roads (km)	750	828	1171 (2004)
Paved roads, (% of total proclaimed roads)	27	35	37 (2004)
Feeder roads (un-proclaimed, mostly rural roads)	n.a.	n.a.	1560 (2004)
Vehicles (licensed, all categories, incl. government)	57,877	70,066	126,755 (2004)

Selected Indicators of Rural Infrastructure	1991	1995	Last available data
Vehicles (per 1000 people)	67	75	117 (2004)
Vehicles (per km of proclaimed road)	21	24	40 (2004)
Telephone mainlines (per 1000 people)	17	23	44 (2003)
Cellular subscribers (per 1000 people)	0	0	84 (2003)
Internet users (per 1000 people)	0	0	26 (2003)
Rural electrification (% of rural households)	n.a.	< 5	< 20 (2004)

Sources: WB development indicators; UN Human Development Reports; 1997 Census; CSO; MPWT; MNRE; MHSW; SEB;* approximate estimate, ** UNICEF/WHO 2002

The main elements of telecommunications in the country are radio, television and telephone. About 79 percent of all households possess a radio and 32 percent a television set21. The figure for the latter in the rural areas is significantly lower; however national television network cover is 55 percent. The estimated coverage of the population by a telephone landline is 44 percent. The number of people with access to cell-phones has strongly increased in recent years and it is assumed that this includes a significant proportion of rural households. Coverage of the cellular network has increased to 75 percent of the country's geographical area. Local newspapers have a wide distribution and frequently contain relevant information and updates on agriculture and the food security situation.

One of the major constraints with respect to institutional infrastructure and support services is market infrastructure, which is insufficiently developed and not efficient in catalysing improvements in production. Coordination of marketing activities and market information systems are not adequate, and information is not readily available to producers. The availability of affordable credit opportunities is a major problem in agricultural development, although facilities are provided by the government-owned Swazi Bank, three commercial banks and several other financial institutions and NGOs, of which the outstanding loans are for 90 percent restricted to growing sugarcane. Despite these institutions, there is a need to facilitate access to credit services for small farmers and develop economically viable mechanisms for the private sector to confidently lend to smallholders. There is limited research and extension capacity, and weak linkages exist for research and technology transfer among research institutions, extension services, the private sector and farmers.

1.5 Agro-industrial Activities

The major agro-industrial activities in Swaziland are the sugar industry, the production of pulpwood and the processing of fruit (canned fruit and liquid concentrates). These activities take place in the private sector, with high technology and management levels. The main orientation of agro-industrial activities is on the export market, which accounts for more than 90 percent of all agro-industrial output. About 50 percent is exported to South Africa. Foreign exchange earnings of the three major component of the sector in 2004 amounted to more than E 1300 million, about the same as in 2003.22 The

21 SHIES, 2001

22 CBS Annual Report 2005.

sector accounts for approximately 15 percent of total export earnings. Agricultural raw materials form the basis of about one third of value adding in the manufacturing industry, which percentage contribution to GDP was 35.2. The value added by the agro-industries was 13.3 percent of GDP in 1990, 15.6 in 2000 and 12.2 in 2003. The agro-industrial estates employ about 20,000 people, of which the majority in the sugar industry. Smallholders have in recent years increasingly contributed to the raw material base for the sugar industry, and are benefiting from the industry. Timber outgrower schemes have been initiated, however on a very modest scale. Contributions from smallgrowers to the fruit processing industry are very minor.

Apart from the above mentioned activities, any other significant agro-industrial developments have not taken place, although the MEE and SIPA have developed incentives and credit facilities to stimulate new agro-industrial activities. Also the Swazi Bank has credit facilities available. In the past the production and processing of cotton has played an important role of providing cash for both SNL and TDL farmers. However, ginnery operations were closed because of the lack of profitability exacerbated by the poor repayments of seasonal loans to the farmers. It is estimated that a minimum throughput of 10,000 Mt is required to make a ginnery viable.

Until now virtually all efforts in agro-industrial development have focused on expanding sugar production, in particular increasing smallholder production. In the next few years this is expected to dramatically change due to major changes in price levels. There will be a need to diversify commercial agricultural production and processing. Table 13 shows the sugar sale per segment over the past seven years, over which period total sales have increased by more than 30 percent. The EU Sugar Protocol segment has been fixed at 120,000 Mt per annum, whereas the EU agreement on Special Preferential Sugar (SPS) segment has decreased in 2001 from 50,000 to 30,000 Mt, and will cease to exist in 2006. The US Tariff Rate Quota has been fixed at 16,500 Mt per annum and the current total of preferential trade at 166,500 Mt. Table 13 also shows that two other markets, namely SACU and the world market have absorbed all of the production increase. The world market figures include the regional market outside SACU, which is mainly COMESA. Although in an irregular pattern, the world market share has sharply increased and reached the same volume as the EU Sugar Protocol quota. The SACU share has also increased and accounts for more than half of the total market.

Table 13: Sugar Sales by Segment 1998-2005 (Mt'000)

SEGMENT	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
EU Sugar Protocol	121.2	130.4	120.5	140	106.1	116.5	120.9
EU SPS	53.5	65.4	49.4	24.5	46.1	30.5	36.7
US Tariff Rate Quota	22.7	16	16.3	16.3	16.0	16.3	15.7
Subtotal Preferential	***197.4***	***211.8***	***186.2***	***180.4***	***168.1***	***163.3***	***173.2***
SACU	***246.9***	***174.7***	***255.4***	***296***	***280.9***	***331.9***	***311.3***
World Market	***23.2***	***39.5***	***110.8***	***27.7***	***111.5***	***116.3***	***122.1***
Total Sales	**467.5**	**426**	**552.4**	**504.5**	**560.6**	**611.5**	**606.6**

Source: Swaziland Sugar Association 2005 and previous

Price differences between the market segments are considerable. The current highest segment price is € 523.70/Mt (EU Sugar Protocol) and the lowest in the order of € 140.00 per ton (world market, average 2003/04 season). The EU sales prices are fixed for an agreed period. The US Tariff Rate Quota prices are tendered and roughly estimated to be in the order of €400.00/t. Sales price to SACU is based on the market structure within the SACU market and together with the quota negotiated every year. The 2004 SACU price level is close to Rand 2,000/t (about €160.00). World market prices have dropped over the past four years by some 25 percent and more than 40 percent over the past ten years. The EU is currently reviewing their pricing and quota policy, which is expected to have a severe economic impact on Swaziland, having the largest EU quota among the southern African countries.23 As a result of lower sales prices, cane growers in less favourable situations further from the mill may be forced by the market to change to other crops. This development will also have an impact on the KDDP and LUSIP. The result may be that not all of the originally planned KDDP area of 5,500 ha will be brought under irrigated sugarcane. Similarly, also the LUSIP plans for the cultivation of sugarcane may have to be scaled down from the originally planned total of 11,500 ha.

23 As part of ongoing reform, the EU has proposed reducing the price of sugar in its domestic market to international levels. Sugar is currently sold in EU countries at three times the international price, and the proposed reduction will affect the price at which the EU buys sugar from ACP countries. According to a proposal by the European Commission, ACP countries will continue to enjoy duty-free access to the EU, but the purchase price under the Sugar Protocol will be reduced by 37 percent between 2005 and 2008. The EU will also shift quota in favour of the least developed countries under the Everything but Arms Agreement. Swaziland's sugar industry is expected to lose more than USD 23 million in 2005/06 and more than 39 million in 2007/08 as a result of the price cut. The EU has stated that they remain committed to providing support to the ACP countries, hence the commission has proposed the European Development Fund (EDF) to help the sugar industry in the affected countries adapt to the new market condition.

CHAPTER 2 REQUIREMENTS FOR ACTION: SCENARIOS FOR WFS-FYL FOLLOW-UP

2.1 Challenges, Opportunities and Constraints

2.1.1 Challenges

The food security and poverty situation in Swaziland is deteriorating. More than 30 percent of all Swazi are food insecure and about 70 percent of the population are poor. This magnitude reflects the extent of the challenge ahead, which the government has to address. Although there are many contributing factors, the poor performance of the agricultural sector lies at the heart of the problem. The increasing unemployment levels have been accompanied by the spread of HIV/AIDS which are taking tremendous toll on public social services, labour productivity and household savings, and major political and economic changes that have occurred in the region,.

Strengthening smallholder agriculture in Swaziland is central to addressing the root causes of poverty and food insecurity. A major challenge for attaining food security and reducing poverty is, therefore, to create an enabling environment for diversifying, intensifying and commercializing smallholder agriculture to increase productivity and competitiveness, provide income and employment opportunities for rural population, and conserve natural resources.

2.1.2 Opportunities

Swaziland has the potential and opportunities to reduce poverty and improve food security. Swaziland has relatively diverse physical features with a variety of climatic conditions, which agro-biodiversity allows the country to grow a variety of annual and perennial crops and sustain pastoral activities. The country has good water resources that provide a big irrigation potential. Swaziland has large numbers of livestock population. Despite the huge size and inherent potential, the livestock industry remains underdeveloped. However, under better management the productivity of the livestock sub-sector can be significantly improved. These opportunities, together with the new market opportunities in the global economy, can maximize the benefits to farmers of increased agricultural productivity.

2.1.3 Constraints

However, there should be no illusion of quick paths towards agricultural development. Achievement of a productive and competitive agriculture will require addressing a complex set of constraints. Swaziland is one of the Sub-Saharan African countries where the HIV/AIDS infection is high. There is no doubt that the HIV/AIDS pandemic has the potential to seriously increase poverty and hunger and reduce the capacity for accelerating economic growth. At the macroeconomic level, it seriously reduces the quantity of skilled labour through both death and morbidity and reduces private savings. At the household level, the impact can be severe. Poor households have little margin in terms of savings and income. An AIDS illness can result in increased time spent on caring for the sick person, the loss of labour from the AIDS-infected family member, increased expenditures on health care and on funerals.

The land resource of Swaziland is being denuded of its top soil at a very fast rate as a result of poor land management, overgrazing and soil erosion. This has exposed the country to a very serious ecological and environmental degradation. Increasing agricultural productivity depends, among other factors, on reliable access to water. Water shortage, however, is a serious impediment to intensifying and diversifying agriculture and bringing new land into production, particularly on SNL. The most reliable means of water supply is irrigation; however it's potential in the country is constrained by international obligations and high demand on financial, water and human resources.

To varying degrees, both irrigated and rainfed agriculture are also under threat from current and predicted climate changes. However, the land tenure in TDL holding gives a potential for refinancing, land consolidation, sale or other measures to address lean years, while SNL holdings are severely constrained in that context. TDL also has some advantages over SNL regarding infrastructure to address water supplies for livestock. While the value of the national herd on SNL is a significant asset, it is currently subject to inappropriate and unsustainable livestock practices. Small-holder agriculture, which is the predominant source of livelihood for most of the population, is characterised by limited access to mechanization and technology. A similar situation exists in the livestock sub-sector, the large number of livestock, with sub-standard quality, together with land mismanagement, has a deleterious effect on grazing land. Overgrazing has no doubt created soil erosion. Feed and fodder are in short supply, productivity of the indigenous breed is very low, and health conditions are low. This situation has also adverse consequences on the quality of livestock and livestock products.

The insufficiently developed infrastructure of the country has been one of the constraints to agricultural development. This leaves most of farmers poorly connected to markets. Many farmers can neither procure agricultural inputs at affordable prices nor market their own products effectively. Similarly, poor access to health and education services diminishes agricultural productivity, contributes to the spread of infectious diseases, and locks rural people into a poverty trap. The present institutional set up is inadequate to support accelerated agricultural growth. Rural and agricultural institutions have not yet effectively developed and have limited capacities. The institutions for research, extension and credit lack adequately qualified staff, facilities and logistical support. In addition, coordination between institutions leaves much to be desired. Furthermore, Swaziland will also need to improve the restrictive (marketing and pricing) policy and regulatory framework for agriculture to make it more supportive of both local community participation in rural areas and commercial private sector operations.

However, the political and economic realignments caused by globalization over the past decade have caused many changes in Swaziland that offer new opportunities for agricultural development and food security. Firstly, the country is more firmly committed to reducing hunger and poverty than at any other time in the past. Secondly, the country is experiencing institutional reforms to improve the efficiency and the cost effectiveness of the public services and finance. Thirdly, the country is committing to more liberal trade and marketing policies, and have begun to create the conditions necessary for private sector involvement. These opportunities, together with the new market opportunities in the global economy, can maximize the benefits to Swazi farmers of increased agricultural productivity.

2.2 Country Policy Processes and Government Objectives

Swaziland has formulated and adapted several policies, programmes, strategies and action plans that aim at creating an enabling environment for achieving food security, alleviation poverty and attaining economic development. Key policies and strategies that are relevant and closely related to agriculture are reviewed under the following headings: (1) national development strategies and programmes, (2) policies on the environment including bio-diversity, and (3) policies on renewable natural resources, including forestry and livestock.

2.2.1 National Development Strategies, Plans and Programmes

Vision 2022 aims to build a truly Twenty-First Century Kingdom of Swaziland, culturally united, integrated and stable, economically prosperous and socially well organised with equal opportunities for all, irrespective of gender, and responsibility from all. Vision 2022 has been incorporated into the national development planning process through the development of the *National Development Strategy* (NDS) which intends to inspire and direct long-term socio-economic development of the country. The goal of the NDS is that by the year 2022, the Kingdom of Swaziland will be in the top ten percent of the medium human development group of countries founded on sustainable economic development, social justice and political stability. NDS gives directions for the development of various economic sectors including agriculture. The NDS highlights the need to raising the capability of the agricultural sector to generate a higher volume of goods and services for given factors of production, without destroying the environment. It emphasizes the importance of food security at the household and community levels, commercialisation of agriculture on Swazi Nation Land, efficient water resource management and usage, and rational land allocation and utilization.

The implementation of a *Poverty Reduction Strategy and Action Plan* (PRSAP) is seen as crucial in achieving the goals of the NDS. As poverty is more prevalent in rural areas, smallholder agricultural development is vital to its alleviation. The revised 2005 draft PRSAP presents a poverty reduction framework which consists of six pillars: (1) rapid acceleration of economic growth based on broad participation, (2) empowering the poor to generate income and reduce inequalities, (3) fair distribution of the benefits of growth through public expenditure, (4) ensuring food security, (5) improving the quality of life of the poor, and (6) strengthening good governance. The most essential parts of the PRSAP are consolidated under the empowerment of the poor to generate income through improving access to land, increasing income from agriculture, and reducing unemployment. The strategies proposed under the human capital development focus on education, health, food security and nutrition, and safe water and sanitation.

As a matter of urgency for implementing the NDS, the Prime Minister in 2004 has launched the *Smart Programme on Empowerment and Economic Development* (SPEED). The programme provides a short- to medium-term framework for prioritizing development interventions in the country. It focuses on development of a sustainable economy and enhancing economic growth though expanding the private sector, encouraging foreign direct investment (FDI), the growth of small and medium enterprises (SMEs), industrialisation, the provision of infrastructure and regional development. Government and public sector reform are considered essential preconditions. SPEED includes elements and sub-programmes for achieving food security through increasing agricultural production, increasing the maize and cotton production, improving veterinary and livestock services, and maximising land use planning.

While the NDS envisions what should happen and how, the *National Physical Development Plan 1996-2006* specifies where development should happen. Its main purpose is to spatially interpret national economic planning and implementation driving all major developments in the country, and to strengthen inter-sectoral coordination of the overall development within a spatial framework and ensuring balanced use of land and natural resources. Plan proposals have been formulated for six sectors: the physical environment, rural land use and agriculture, non-agricultural productive sectors, human sector hierarchy, infrastructure and community facilities. Each of the plan proposals has a goal and a set of objectives. In 2004 the Government has initiated the preparation of *Regional Physical Development Plans* (RPDP), which seek to bridge the gap in the planning hierarchy that exist between the NPDP and local town planning schemes. The RPDP is an instrument to integrate the planning of urban centres and rural districts.

The guiding vision of the *National Rural Resettlement Policy* (NRRP), which has been approved in 2003, is to establish a durable, practical and participatory framework for the planning and sustainable management of land, and the appropriate application of resettlement strategies in rural Swaziland, in order to increase agricultural production, promote the sustainable utilisation of natural resources and improve livelihoods. Key institutions involved in the formulation and implementation of this policy are MOAC and the Rural Planning, Development and Resettlement Board. Policy objectives focus on transparent, orderly, legitimate and equitable land allocation in both social and legal contexts, fair compensation and appropriate treatment of displaced and other people affected by resettlement, and an effective legislative framework for resettlement, resolution of land disputes and sustainable land management. In addition it emphasizes the promotion of optimal and sustainable land use and the identification of suitable land use strategies for local communities and their full participation and involvement.

The goal of the *Decentralisation Policy* of 2005 is to provide an enabling environment for promoting and enhancing sustainable and participatory local and national economic, political and social development within a decentralised governance framework.

A *National Multi-sectoral HIV and AIDS Policy* is currently being drafted as part of the overall strategy to combat HIV and AIDS. The 2005 draft policy identifies policy measures to address the spread and impact of HIV and AIDS, defines an implementation framework, and presents a monitoring and evaluation system. Matters related to food security form an important element of this policy.

2.2.2 Policies on Environment and Bio-Diversity

The **National Environment Policy *has been formulated*** to promote the enhancement, protection and conservation of the environment to attain sustainable development. The *Swaziland Environment Action Plan* (SEAP) was officially approved and endorsed by the government in 1997. The Swaziland Environment Authority (SEA), which is an autonomous body within the Ministry of Tourism, Environment and Communications (MTEC), is entrusted with the implementation of the SEAP. The main objectives of the SEAP are to provide an overview of the Swaziland environment, prioritise environmental issues and problems, suggest solutions to these problems, establish a clear indication of the government's priority areas with respect to the environment, establish a framework with coherent direction for future planning and monitoring, and provide a framework for continuous development and policy dialogue. The **Environmental Management Act, 2002** turned the SEA into a body corporate and established the Swaziland Environment Fund.

Although emerging from the International Convention on Biodiversity, the draft **National Biodiversity Strategy and Action Plan** (BSAP) is an integral part of the SEAP. The purpose of the BSAP is to conserve the biodiversity of Swaziland, encourage the sustainable use of biodiversity, and ensure that the benefits accrued from the use of biodiversity are shared equitably. The BSAP establishes six goals, and makes recommendations towards their achievement. The goals are to: conserve a viable set of representative samples of natural ecosystems, sustainably use of biological resources of natural ecosystems outside protected areas, conserve the genetic base of Swaziland's crop and livestock breeds, minimise risks associated with the use of modified organisms, establish effective institutional, policy and legal frameworks, and enhance public awareness and support for biodiversity conservation.

2.2.3 Policies on Renewable Natural Resources Including Forestry and Livestock

A draft *National Land Policy* (NLP) was prepared in 1999 with a view to improving access to land and security of tenure on SNL including tenure on irrigation schemes, as well as clarifying roles and responsibilities for land administration. The draft policy considers the possibility of leasehold arrangements and transferable user rights for individual farmers and farmer groups on SNL. It proposes that the 99-year leasehold concept, already being applied on SNL by the Ministry of Housing and Urban Development (MHUD) in an urban context, be also applied to rural SNL. It also proposes changes to systems of land allocation to allow women to have equal access. However, further development of the NLP has been temporarily suspended pending the finalisation of the Constitution.

The *National Irrigation Policy* is currently being drafted. The overall goal is to ensure that the irrigated agriculture sub-sector in Swaziland contributes fully to economic growth and poverty alleviation. It has three specific objective: to optimize the productivity of water in the country's agricultural sector and broaden the scope for agricultural intensification and diversification; to establish an irrigation sector institutional landscape characterised by transparent regulation and strong, participatory and/or responsive and accountable institutions in Swaziland; and to enhance the structure of the irrigated sub-sector by promoting new public and private investment opportunities for emerging farmers. The *Water Act of 2003* is developed to harmonise the management of water resources in the country through the establishment of a National Water Authority and formulation of a Water Resources Master Plan.

The *National Forest Policy* (NFP) was approved in 2002. The Vision of the NFP is "to achieve efficient, profitable and sustainable management and utilisation of forest resources for the benefit of the entire society, and to increase the role of forestry in environmental protection, conservation of plant and animal genetic resources and rehabilitation of degraded land". The policy objectives include the development of forest resources and its sustainable balance with other land and water uses, the improvement of forest productivity, to improve living conditions and alleviate poverty, to conserve the biodiversity of forest resources and to enhance forest management. Its action plan, called the *National Forestry Programme*, which is awaiting approval, proposes six action programmes covering industrial forestry, community forestry, urban forestry and natural forests and woodlands.

The goal of the *Livestock Development Policy* (LDP), which was approved in 1995, is to achieve an efficient and sustainable livestock industry contributing to economic development. The policy objectives relate to improving the national herd and animal health, nutrition, meat hygiene standards, marketing, processing industries, commercialisation and promotion of entrepreneurship, range management, research, legislation and communication. Proposed strategies for achieving these objectives focus on improving livestock extension, raising off-take levels, promoting marketing, commercialising the livestock industry on a cost recovery basis, promoting entrepreneurship, maintaining good range and pasture management practices, ensuring adequate research, improving the nationals herd, raising livestock nutrition levels, developing competent manpower, guaranteeing meat hygiene standards and sanitary requirement, preventing diseases through animal health care, developing appropriate legislation, and branding cattle. The *Livestock Identification Act of 2001* provides for the compulsory marking of livestock with registered identification marks. It is potentially necessary for livestock development. However, difficulties are encountered in its implementation particularly with respect to the required training and equipment for marking.

2.3 Strategic Priorities and Targets

2.3.1 International Commitments

Rome Declaration on World Food Security: The Rome Declaration emanating from the 1996 *World Food Summit* committed its signatories world-wide to 'achieving food security for all with an immediate view to reducing the number of undernourished people to half their present level no later than 2015'. Swaziland was present at the Summit and pledged her unwavering political and moral support to the commitments. To check on progress being made, nations met again at the 2002 *World Food Summit: five years later* (WFS:fyl). The 2002 Declaration reaffirmed its signatories' commitment to the 1996 Rome Declaration of the right of everyone to have access to safe and nutritious food. It further noted that, despite the efforts of many signatories, improvements are not happening at a rate that will achieve Rome's goal of a halving of the number of the world's undernourished people by 2015.

UN Millennium Development Goals: In September 2000, Swaziland was among the 191 United Nations (UN) Member States to adopt the UN Millennium Development Goals (MDGs), an unprecedented international commitment to accelerate sustainable human development. The MDGs made up of eight goals, each comprising targets to be achieved by 2015. Appropriate indicators have been selected to monitor progress and to ensure a common assessment and understanding of the status of the MDGs at global, regional and national levels. The MDGs represents an opportunity for Swaziland to achieve the vision 2022 embraced in the National Development Strategy (NDS.) The eight goals and the associated targets and indicators for Swaziland - as well as progress achieved - are shown in Table 14.

Table 14: Millennium Development Goals and Swaziland's Progress towards Achievement

Millennium Development Goal	Target	Indicator	1. Will the Goal-Target Be Met? 2. State of Supportive Environment
1. Eradicate extreme poverty and hunger	Reduce by half the proportion of people living in extreme poverty by 2015	-Proportion of the population below the national poverty line of E71 per month	1. Unlikely 2. Fair
2. Achieve universal primary education	Achieve universal access to primary education by 2015	-Net primary enrolment rate -Proportion children starting grade 1 and reach 5 -Literacy rate	1. Unlikely 2. Weak but Improving
3. Promote gender equality and empower women	Eliminate gender disparity in primary and secondary education by 2005 and in all levels of education by 2015	-Ration of girls to boys primary education	1. Potentially 2. Weak but Improving
4. Reduce child mortality	Reduce under-five mortality by two thirds by 2015	-Under-five mortality rate	1. Unlikely 2. Weak but Improving
5. Improve maternal health	Reduce maternal mortality ration by three quarters by 2015	-Maternal mortality rate	1. Unlikely 2. Weak but Improving
6. Combat HIV/AIDS, malaria and other diseases	Reverse the spread of HIV/AIDS and other diseases by 2015	-HIV/AIDS prevalence (15-49) rate -Number of HIV positive anti-natal care clients -Death rates associated with tuberculosis -Number of children orphaned by HIV/AIDS	1. Unlikely 2. Fair
7. Ensure environmental sustainability	Integrate the principles of sustainable development into the country policies and programmes and reverse the loss of environmental resources	-Development and implementation of a national strategy for sustainable development by 2015 -Proportion of land covered by forest -Ration of area protected to maintain biological diversity to surface area -Proportion of population using solid fuel as major source of energy -Proportion of population with access to improved water sources(urban/rural) -Proportion of the population with improved sanitation (urban/rural)	1. Unlikely 2. Weak but Improving

Millennium Development Goal	Target	Indicator	1. Will the Goal-Target Be Met? 2. State of Supportive Environment
		-Proportion of households with access to secure tenure	
8. Develop a global partnership for development	Address the special needs of landlocked countries and small islands developing countries	-Proportion of exports admitted free of duties and quotas -Proportion of overseas development assistance provided to help build trade capacity	1. Unlikely 2. Weak but Improving

Source: Millennium Development Goals Country Report, December 2003

The *2006-2010 United Nation Development Assistance Framework* (UNDAF) identified five key priority areas of cooperation, in line with the Millennium Development Goals and other important international and national priorities. Government and stakeholders involved in the UNDAF prioritization workshop identified five priority areas of cooperation for the UNDAF (2006-2010). These were based on a joint review of issues arising out of the common country assessment, the NDS, and the national commitments related to the Millennium Declaration and Millennium Development Goals. The five areas are: HIV and AIDS; Poverty Reduction; Food Security; Basic Social Services; and Governance. The UNDAF outcomes identified in relation to the above are to achieve, by the year 2010: (1) A strengthened and intensified multi-sectoral national response to HIV and AIDS; (2) Reduction of poverty levels by 25 percent from the current level of 69 to 52 percent through the formulation and implementation of pro-poor policies, strategies and programmes. (3) Improved food security for the Swazi population; (4) Improved access to basic social services especially for vulnerable/disadvantaged groups; and (5) Enhanced/strengthened capacity of key national and local level institutions for improved governance. Total target for resource mobilisation for the UNDAF is approximately USD106 million over the 2006-2010 period of the cooperation, broken down by agency, and by priority area (Table 15)24.

Table 15: Proposed UNDAF Funding Levels for Resource Mobilisation Period 2006-10 (USD)

AGENCY	HIV and AIDS	Poverty	Food Security	Basic Services	Governance	Agency Total
FAO	3,500,000	1,000,000	2,750,000	-	-	7,250,000
UNICEF	9,600,000	450,000	1,200,000	5,995,000	500,000	17,745,000
UNDP	1,150,000	2,832,000	250,000	-	2,094,000	6,326,000
UNESCO	35,000	76 500	50,000	280,000	20,000	385,000
UNFPA	1,050,000	250,000	-	705,000	905,000	2,910,000
WFP	15,000,000	750,000	25,000,000	20,000,000	-	60,750,000
WHO	3,500,000	250,000	-	4,650,000	-	8,400,000
UNAIDS Secretariat	2,100,000					2,100,000
Total (USD)	**35,935,000**	**5,532,000**	**29,250,000**	**31,630,000**	**3,519,000**	**105,866,000**

Source: 2006-10 UNDAF

24 Figures are indicative only, and levels of projected commitments (subject to continuous need assessment and availability of funds) will only be formally made in country programme or project documents developed by the individual agencies with Government, and according to the procedures and approval mechanisms of the agencies. Government and other stakeholders' financial and other commitments are not included

2.3.2 Continental and Regional Priorities and Agreements

Maputo Declaration on Agriculture and Food Security in Africa, 2003: The signing of this Declaration by Swaziland is a commitment to the NEPAD/CAADP process to revitalise the agricultural sector including livestock, forestry and fisheries through special policies and strategies targeted at small scale and traditional farmers. This includes a commitment to allocate at least 10% of national budgetary resources for their implementation within five years, to participate in a regional food reserve system, and to help establish the African Investment Bank, which is to give priority to investment in agricultural production.

Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development on Agriculture and Water in Africa, 2004: Taking note of CAADP, the African Water Vision for 2025, and the unsatisfactory present situation of integrated water and agriculture programmes in Africa, this Declaration made in Sirte, Libya makes a total of 25 commitments. As well as confirming those above, the Sirte Declaration's commitments concern the development of centres of (research) excellence for matters within its purview, and the support of the African Ministerial Council on Water re water resource management. It lays particular emphasis upon improvement of networking on the continent in all areas towards establishment of an African Common Market for agricultural products, but lays particular emphasis upon electronic networking, Early Warning Systems, and transport infrastructure.

Dar Es Salaam Declaration on Agriculture and Food Security in the SADC Region 2004: Swaziland is a member of the Southern Africa Development Community (SADC) created in 1992. Under the Dar Es Salaam Declaration, Swaziland is committed to "promote agriculture as a pillar in its national and regional development strategies and programmes in order to attain short, medium, and long-term objectives, on agriculture and food security". Short-term objectives are: to ensure the provision of key agricultural inputs, agro-industrial development, control of crop and livestock pests and diseases, greater crop, livestock and fisheries production, and improved water management and irrigation. Medium- to long-term objectives are: to ensure sustainable use and management of its natural resources, and better disaster preparedness, research, technology development and dissemination, ensure greater private sector involvement in agriculture and rural development, better market access, agricultural financing and investment, and training and human resource development, ensure gender equality, and enhancing human health and mitigation of HIV and AIDS, and other chronic diseases. Swaziland has undertaken to review progress on the implementation of this Declaration at the end of every two years from the date of signature.

SADC Protocols: At the SADC summit held in August 2003 in the United Republic of Tanzania, Heads of State and Government noted with concern that member states were slow in ratifying or acceding to protocols. By 23 June 2004, 15 protocols had been ratified and entered into force. In August 2003, 12 protocols had been ratified and were ready for implementation. The last three protocols that have come into force are the Revised Protocol on Shared Watercourses, the Protocol on Politics, Defence and Security Cooperation, and the Protocol on Wildlife Conservation and Law Enforcement. Eight protocols still need to be ratified by the required two-thirds in order for them to enter into force. The most relevant Protocols include: the Protocol on Energy, the Protocol on Transport, Communication and Meteorology, the Protocol and Amendment Protocol on Trade, the Protocol on Fisheries, the Protocol on Forestry, the Declaration on Gender and Development, the Declaration on HIV and AIDS, and the Declaration on Agriculture and Food Security.

Regional and International Trade Agreements: Swaziland has signed up various regional free trade agreements and preferential trade agreements. Swaziland is a member of the Southern African Customs Union (SACU) created in 1969 and renegotiated in October 2002 (New Agreement signed by the SACU Heads of State and Governments on the 21st October 2002). Swaziland is also a member of the Common Market of Eastern and Southern Africa (COMESA). Nonetheless, regional trade with countries other than South Africa remains small (one percent of total trade). Swaziland benefits also from the preferential trade agreements with the Lomé-Cotonou Convention and the Generalized System of Preferences (GSP) of the USA, which govern most of the sugar exports, and the US Africa Growth and Opportunity Act (AGOA), under which most clothing and textiles are exported.

These agreements have policy implications for Swaziland's rural development policy, in particular with respect to sugar and beef production. Any changes to the present system of subsidies in the sugar industries of the EU and the USA would have implications for the prices received by Swaziland on these markets. The Cotonou Agreement will provide access for Swaziland to the EU market until 2008, but a Reciprocal Economic Partnership Agreement (REPA) will probably govern thereafter trade relations, including sugar. Beef is the only livestock product of international significance for Swaziland. The country has never been able to fulfil its EU quota because of the low cattle off-take. Government has not been successful in persuading Swazi farmers to commercialise beef production on Swazi Nation Land. Cattle remain important socially, and an attempt by the Government to pass a Dipping Chemicals Bill, which would force farmers to pay for chemicals for dipping their cattle, backfired because of the outcry, and the subsidy consequently remained in operation.

2.3.3 National Strategic Priorities

The NDS document provides a long-term framework (25 years) with eight key macro strategic development priorities: Sound Economic Management; Economic Empowerment; Human Resource Development; Agricultural Development; Industrialisation; Research for Development; and Environmental Management. Each macro strategic priority encompasses a number of more focussed strategic considerations. The strategic options are not presented in any order of priority. The prioritisation is done in the context of medium-term national development plans through which the national long-term development strategies are implemented.

For agricultural development, priority is given essentially to raising the capability of the agricultural sector to generate a higher volume of goods and services for given factors of production, without destroying the environment. Important elements are food security and poverty alleviation, livestock development, efficient water resource use and management; rational land allocation and utilization, and strengthening of rural institutions and infrastructure. Table 16 lists strategic priorities for agricultural sector development in Swaziland as formulated in the NDS and other relevant documents such as MDGs country report, UNDAF, PRSAP, SPEED, CASP and the Government Estimates 2005/08[25]. The priority development programmes are arranged in broad categories according to the five pillars of NEPAD/CAADP (see next section 2.4), with several programmes crosscutting to other pillars.

The Priority Development Programmes for Food Security and Agriculture as presented in Table 16 summarises the national strategic priorities arranged according to the CAADP Pillars. The priority programme is further worked out in Annex 1, including details of programmes listed in CASP, PRSAP, Government Estimates 2005/08, SPEED and UNDAF, and providing a basic framework to improve food security and reduce poverty in order to reach the millennium goals.

Table 16: Priority Development Programmes for Food Security & Agricultural Development

CAADP Pillar	Priority Programmes	GOVT. EST.	SPEED	PRSAP	UNDAF
1. Expansion sustainable land management and water systems	Increasing water use efficiency and access: (a) strengthening capacity of water institutions (b) multipurpose water harvesting infrastructure (c) expansion of land under irrigation	x x x	x	x	x x
	Promoting sustainable land use and management: (a) strengthening capacity of land institutions (b) development and implementation of land use plans		x x	x	
2. Rural infrastructures & market access	Expansion of trade and improvement of market access: (a) improvement of marketing and trade capacity (b) improvement of rural infrastructure	 x x	x	x	x
3. Enhancing food supply and reducing hunger	Increase and diversification of crop production: (a) in areas with reliable rainfall (a) in dryland areas, (b) irrigated crops	 x x x	x	x	x x x
	Increasing food access, utilisation and nutrition: (a) nutritious food production at household level (b) value-adding activities in agriculture (c) alternative non-agriculture rural livelihoods (d) emergency relief and drought mitigation	 x x x x	x	x	x x x x x
4. Agricultural research	Establishment of efficient and integrated research service: (a) reorientation/integration of research & extension (b) reorientation towards improving food security	 x		x	

25 GOS-MEPD, 2005. Government Estimates 2005/08

CAADP Pillar	Priority Programmes	GOVT. EST.	SPEED	PRSAP	UNDAF
5. Integration of livestock, fisheries, forestry and environment	Sustainable communal natural resource management: (a) combating desertification and land degradation (b) sustainable range management (c) sustainable exploitation natural forest/woodlands (d) managing biodiversity	x		x	
	Commercialisation of the livestock industry: (a) improving animal quality and health (b) beef production (c) dairy production (d) small-stock production (e) sustainable feed and fodder production (f) fish and aquaculture production		x	x	

A national priority of the highest order is the fight against HIV and AIDS, which is crosscutting to virtually all sectors. In 1999 the King declared HIV/AIDS a national disaster: a Cabinet Committee on HIV/AIDS and a Crisis Management and Technical Committee were established. In 2002 the National Emergency Response Committee on HIV/AIDS (NERCHA) was formed to replace the first committee and co-ordinate the government's response.26

2.4 Role and Perspectives of NEPAD

African Heads of State have adopted the New Partnership for Africa's Development (NEPAD) as an overall framework for achieving development in Africa. NEPAD aims at eradication of poverty, sustainable economic development, and exit from economic marginalisation. To achieve these objectives, Africa's leaders have set an ambitious target of seven percent of annual growth rate in GDP over the next 20 years. In agriculture, NEPAD seeks to achieve food security and build the foundations of prosperity for the majority of its poor people, who depend on agriculture for food security as well as economic opportunities. The proposed initiatives under the NEPAD Comprehensive Africa Agriculture Development Programme (CAADP) as currently formulated focus on investment into five "pillars" that can make the earliest difference to Africa's agricultural crisis – land and water management; infrastructure and trade-related capacities for improved market access; and support to productivity-increasing activity among small farmers in the context of food security programmes; agricultural research, technology dissemination and adoption; and livestock, fisheries and forestry.

Table 17 shows the focus of the five CAADP pillars and the total investment requirements proposed in NEPAD-CAADP for all Africa for the period 2002-2015. Investment requirements for livestock and fisheries components of Pillar

26 In 2003 NERCHA was established as a Council through an Act of Parliament. NERCHA and its partners have initiated several interventions to mitigate the impact of HIV/AIDS. Of the more than 20,000 people in need of anti-retroviral (ARV) drugs, more than 7,000 are currently covered by the ARV programme and this is expected to increase to 13,000 by the end of 2005. NERCHA and WFP manage extensive school feeding programmes. The MOAC provides support for farm inputs to all chiefdoms to enable communities to plough and plant especially selected fields and distribute the produce to orphans and vulnerable children under their care.

5 are not yet available. The country's priorities, particularly those of agriculture, food security, livestock development, road development, and water resource development perfectly fit within the NEPAD-CAADP framework. There is, therefore, a great scope and potential for NEPAD-CAADP contribution to the implementation of actions in the context of the above mentioned strategic priorities It should be mentioned here that the country expenditure estimates for priority actions for food security, poverty alleviation and agricultural development for the period 2005-2015 represents about 0.2 percent of the total investment requirements proposed in NEPAD-CAADP for all Africa for the same period.

Table 17: Investments Required for the NEPAD-CAADP Pillars in Africa

	Investment requirement (USD Billion)			
NEPAD pillars for priority investment	**2002-05**	**2005-10**	**2010-15**	**Total**
Land and water management1	10	20	7	37
Operation and maintenance	2	12	18	32
Rural infrastructure and trade-related capacities for improved market access2	23.8	38.5	33.5	95.8
Operation and maintenance	7	13	17	37
Increasing food supply and reducing hunger[3]				
Safety net and emergencies	12	15	15	42
National programmes for food security	1	2	3	6
Regional programmes for food security	0	1	0	1
Agricultural research, technology dissemination and adoption[4]				1.6
Livestock, Fisheries and Forestry				
Livestock, [5]	n.a.	n.a.	n.a.	
Fisheries[6]	n.a.	n.a.	n.a.	
Forestry[7]	7.7	20.5	18.7	47
Total investment	***63.5***	***122***	***112.2***	***299.4***

[1] Small scale irrigation development; Land improvement activities; Upgrading and rehabilitation of existing large scale irrigation systems; and Development of new large scale schemes; and operation and maintenance. [2] Rural roads; Storage facilities; Processing or trade in crop, livestock, forestry or fisheries Market facilities; Capacity building for effective use of multilateral trading systems Strengthening food safety systems; and Diversification of production and export base; and operation and maintenance. [3] Emergency related food security; Safety Nets for the food insecure; Improvement and enhancement of production. [4] Increasing investment in research and technology; increasing private sector funding in agricultural research; and Institutional and financial reforms. [5] Increasing opportunities for poor landless farmers to engage in livestock production; support for para-veterinarians and farmer-field schools; control of trans-boundary animal diseases and preservation of genetic biodiversity. [6] Management of wild and domesticated aquatic resources for sustainable use; Fishery infrastructure including ports and landing centres, trade-related capacities and market access; Increasing fish food supply and reducing hunger; and Fisheries and aquaculture research, technology dissemination and adoption. [7] Improving the policy, legislative and planning framework; Strengthening the institutional structures to better implement policies and legislation; Increased investment in critical areas, especially to implement sustainable forest management and to enhance the availability of goods and services; and Complementary investment for the development of industries and supporting infrastructure

2.5 Resource Implications to 2015

The total expenditure requirements for food security and agricultural sector development are based on priority activities planned to be undertaken during the period 2006-2015 and are rationalized in line with the national development plans and programs. The total budget required for the three years 2006-2008 is estimated at E2357 million whereas the total resource requirement to 2015 is estimated at E 6873 million (Table 18). The total expenditure requirements are detailed per sub-sector and arranged according to the five NEPAD/CAADP pillars. Further details are given in Annex 1, where all programmes and actions are supposed to run for the full period 2006/15.

Where estimates of identified projects or programmes are available for a medium-term period of five year - as in the case of UNDAF and NMTIP - the estimated expenditure is doubled to cover the ten-year period. In other cases target estimates have been made on an annual basis and then extrapolated for the full ten-year period. The capital expenditure is indicated on an annual average basis, except for land and water management.

Table 18: Estimates of Expenditure Requirements for Food Security & Agricultural Sector Development (E'm)

SUB-SECTORS ACCORDING TO CAADP PILLARS	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total 2006-15
PILLARS 1-5 CAPITAL:											
Land & water management	148	408	298	268	188	118	108	78	58	58	1730
Infrastructure & market access	15	15	15	15	15	15	15	15	15	15	150
Food supply, reduction hunger	247	247	247	247	247	247	247	247	247	247	2470
Research	8	8	8	8	8	8	8	8	8	8	80
Livestock, fisheries, forestry	48	48	48	48	48	48	48	48	48	48	480
CAPITAL TOTAL	466	726	616	586	506	436	426	396	376	376	4910
RECURRENT TOTAL	181	182	186	190	194	198	202	206	210	214	1963
TOTAL ESTIMATE	**647**	**908**	**802**	**776**	**700**	**634**	**628**	**602**	**586**	**590**	**6873**

Notes: Recurrent expenditure increasing with 2 percent annually; Includes 100% downstream development Komati & LUSIP and 75% of upstream development.

Although estimated required expenditure for the development of the food and agriculture sector is based on identified priorities, allocation of resource is constrained by the availability of domestic and external resource inflows. The sources of financing the government expenditure - both capital and recurrent - for the period 2005/06-2007/08 are shown in Table 19. For the year 2006/07 the total expenditure is estimated at E 5,983 million, which will be covered by 5,116 million from revenue and 211 million from grants, together 89 percent of total expenditure. The deficit of 655 million (11 percent) will be covered by 94 million external loans and 561million by local financing. Although the estimated deficit for 2006/07 is lower than that of 2004/05 and 2005/06 (14 and 12 percent respectively), current financial developments suggest that budget deficits will be again increasing.

Table 19: Sources of Financing Government Estimated Expenditure (E'm)

Sources of Financing	2005/06	2006/07	2007/08*	2006-08
Total expenditure	5,932	5,983	6,103	18,018
Revenue	4,984	5,116	5,218	15,318
Grants	222	211	215	648
Deficit	726	656	670	2,052
External loans (net)	124	94	0	218
Local financing	602	562	670	1,834

Source: Government Estimates 2005-2008; *2007/08 expenditure estimate base on annual 2% increase.

External support is received from various donors of whom the EC, the UN, the Republic of China, the UK, Japan and Italy are the most important ones. However, donor inputs have decreased over the past years, reasons being Swaziland's lower Middle-income Less-indebted Status and the low government capacity and the slow implementation rate of development programmes. Not all donors target food security and agricultural development; most of the support is related to combating HIV/AIDS and reducing poverty.27 The EC is by far the largest external multilateral donor in Swaziland. The EC's major commitments are toward education, poverty reduction and rural development (LUSIP). The Republic of China, UK, Japan and Italy support, among others, programmes in agriculture, community development, small and medium enterprises, and income generation.

Table 20 presents the government budget allocated to the agricultural sector - including irrigation development which expenditure falls under MNRE - as currently available from the 2005/08 Government Estimates. It should be noted that roads development is not included in this budget overview. The MPWT capital expenditure is currently in the order of 500 million E per annum and part of this is undoubtedly beneficial to the agricultural sector development. However, no official budgeting is yet included for rural feeder roads, although it is planned for.

The agricultural budget is strongly dominated by the expenditure of the Komati (KDDP) and Lower Usuthu (LUSIP) irrigation development projects. The last year with a high expenditure of the KDDP was 2004/05, whereas 2005/06 can be seen as an interim year before the years with extremely high LUSIP expenditure. This is reflected by the fluctuation in the percentage of the budget allocated to the agricultural sector to the total government budget. Of the 2005/06 capital expenditure about 115 million - more than 80 percent of all capital expenses - is earmarked for irrigation development (mainly under MNRE, but some under MOAC), and 25 million committed to other agriculture (MOAC). The 2006/07 and 2007/08 estimates indicate that the contribution from irrigation development will go further up to more than 90 percent of total capital expenses.

Table 20: Government Budget Allocation to Food Security & Agricultural Sector Development (E'm)

SUB-SECTORS ACCORDING TO CAADP PILLARS	**2005/06**		**2006/07**		**2007/08**	
Pillars1-5 CAPITAL:	Allocated	% of required	Allocated	% of required	Allocated	% of required
Pillar 1: Expansion area under sustainable land and water management	127.3*	86	388.3*	95	281.4***	94
Pillar 2: Improvement of rural infrastructures and trade-related capacities for improved market access	4.0**	27	0**	0	0**	0
Pillar 3: Enhancement of food supply and reduction of hunger	0	0	0.8	0	0.4	0
Pillar 4: Development of agricultural research, technology dissemination and adoption	4.1	9	0	0	15.0	187

27 Swaziland is receiving substantial resources from the Global Fund to Combat HIV/AIDS, Tuberculosis and Malaria, which is greatly benefiting an expanded, scaled up and co-ordinated response in the country. Grants amounted to USD29.6m in the first phase (July 2003 to June 2005) of Round 2 and USD22m in the second phase (July 2005 to June 2008). Negotiations are underway for the first two years of Round 4 (running concurrently with the second phase of Round 2) for a grant of USD47.8m. The Country Coordinating Mechanism (CCM) - with a multi-sector representation - is the link between the country and the Fund, having the responsibility inter alia for the selection and approval of proposals for funding. Part of these funds is used for reducing hunger and improving food security.

Pillar 5: Integration of livestock, fisheries, forestry, and environment in agricultural development	4.7	10	7.2	15	2.9	6
TOTAL CAPITAL	140.1	30	396.3	55	299.7	49
TOTAL RECURRENT	180.9	100	181.9#	100	189.0#	100
TOTAL ESTIMATE AGRICULTURE Plus	321.0	50	578.2	64	488.7	61
TOTAL NATIONAL BUDGET	**5,932.0**		**5,982.6**		**6,113.0**	
Agriculture Plus as Percentage of Total Budget	*5.4*		*9.7*		*8.0*	

Source: 2005/08 Government Estimates and sectoral estimates. *Includes 100% downstream development Komati & LUSIP and 75% of upstream development; **rural roads and other infrastructure not included; *** includes proportion estimates for future years after 2006/07; # assumed increase corresponding with the increase of the recurrent expenditure of the total government budget.

Comparison of the required expenditure with the allocated budget over the period 2005/06-2007/08 shows that the allocated resources are not sufficient to meet the expenditure requirements of the sector. The allocated resources in these three years cover between 50 and 64 percent of the required expenditure.28 This implies that the agricultural sector has to adjust its targets downward in line with the cost reduction and/or reallocate the resources to components of its program that ensures maximum achievable targets are maintained. Alternatively (domestic and external) resources have to be mobilized for financing the deficit between allocated/available resources and the required expenditure.

Although the allocation of resources specifically to agriculture and food security of 11.3 percent in 2004/05 satisfied the NEPAD 2003 Maputo Conference commitment to invest not less than 10 percent of the annual budget in agriculture, this percentage decreased in the years after. The 2005/06 expenditure shows a decrease to only 5.4 percent, 2006/07 a rise to 9.7 percent and 2007/08 a value of 8.0 percent. The favourable percentages of 9.7 and 8.0 are due to high LUSIP expenditure, which will however decrease in the years after.

28 There is a large shortfall in the budget allocation for rural infrastructure/market access, food supply/hunger reduction and livestock/fisheries/forestry. It should be noted that apart from agricultural financial sources other financial sources may exist with respect to food supply and reduction of hunger, which normally fall under disaster management and emergency relief. Funding of activities under these headings may be available from international donors, in particular WFP, and through NERCHA.

CHAPTER 3 STEPS FORWARD AND LONG-TERM PROCESSES TO UPDATE POLICIES

This Document represents an initial step in the process of developing a national food and agriculture strategy to enable the country to fulfil its obligations towards the WFS commitments and FAO support to it. It is a preliminary effort for a continued support to longer term processes to upgrade food and agriculture policies in line with the country's National development Strategy (NDS). It is deemed necessary, in the coming few months, to have direct consultation with policy makers and other stakeholders for the identification of strategic priorities, specification of required interventions and action, and determination of targets. It should also be noted that resources required are roughly estimated, and will definitely need to be revised in a participatory manner. The feasibility of mobilizing these resources (internally and externally) should also be assessed.

In the near future, existing legislation, strategic documentation and institutional impediments may need to be updated, strengthened and implemented. In this updating and implementation exercise some institutional constraints and limitations will need to be addressed. In this endeavour FAO can play a supportive role, capitalising on recent, past and ongoing experiences in these areas. This support can be extended within the framework of the Government request to prepare a Medium Term Development Programme for Agriculture, Rural Development and Food Security and can partly be within the request for the preparation of bankable NEPAD-CAADP food security and agriculture development projects.

The FAO policy support is mostly targeted at the preparation and of a Comprehensive Agricultural Sector Policy (CASP) framework and at the preparation of a National Irrigation Strategy with an investment program. The CASP framework will provide a better understanding of the government priorities towards smallholder farmers, the targeted changes in resource allocations, the future distribution of roles between public and private sectors by all government departments, role of para-statals, and the role of NGOs and other development agents involved in agricultural development. The National Irrigation Strategy will assess the existing status of irrigated agriculture, establish trends (including market analysis) and make projections in water use for agriculture and analyse these with other sector trends. FAO could also possibly extend its technical support to Swaziland within the 2006-2010 United Nations Development Assistance Framework (UNDAF) - of which FAO is a partner – in which food security has been identified as one of the five key priority areas of cooperation.

FAO has replied to the request in 2005 of the Government of Swaziland to assist in the preparation of a National Programme for Food Security (NPFS), as a follow up to the draft 2005 National Food Security Policy (NFSP) developed by the country. An agreement has been reached and preparations for the formulation of the NPFS have started in October 2005.

Annex 1: Matrix of Priority Areas and Actions/Strategies 2006-2015

CAADP Pillars	Objectives	Priority Areas	Cost (E'm)	Actions/Strategies[29]
1. Expansion of area under sustainable land management and reliable water control systems	To increase water use efficiency and access	Building and strengthening capacity of water institutions	25 12	Develop and strengthen capacity of water institutions Achieve effective management and utilisation of water resources.
		Development of water harvesting and diversion infrastructure	38 10	Implement practical water harvesting/diversion infrastructure Improve access to water resources for agricultural production
		Expansion of land area under irrigation	40 1,525	Develop and implement micro- and small-scale irrigation schemes Develop and implement large-scale irrigation schemes.
		Promotion of water demand management	10	Promote water demand management
	To promote sustainable land use and management	Building and strengthening capacity of land institutions	20 2	Restructure and strengthen institutions for effective planning and management of land resources Establish a harmonised legal and policy framework for agricultural and environmental development
		Development and implementation of a sustainable land management framework and land use plans	20	Prepare and implement land use plans at community levels
		Strengthening capacity of land users on sustainable land use, soil conservation and land rehabilitation.	8 20	Develop and implement training programme for land users on sustainable land use and soil conservation. Combat desertification and land degradation and enforce soil conservation measures in degraded areas.
2. Improvement of rural infrastructure and trade-related capacities for	To improve market access and rural infrastructure	Improvement of the marketing system and market access	8 6 1 5	Develop and implement a market information system and related institutional capacity Develop a bureau of food quality standards Review agricultural produce pricing policy, including monopolies Train agricultural producers aiming to develop an agricultural business culture

29 Costs are estimated on the basis of various sources including Government Estimates, UNDAF, NMTIP, NERCHA, and other expert estimates.

CAADP Pillars	Objectives	Priority Areas	Cost (E'm)	Actions/Strategies29
improved market access		Building of capacity in trade negotiations	5 2 3	Create institutional capacity in trade negotiations Strengthen capacity and cooperation in regional and international agricultural trade. Develop and implement a comprehensive agricultural produce marketing strategy to improve access to local, regional and international markets
		Improvement of rural infrastructure	120	Improve rural feeder roads and other rural infrastructure.
3. Enhancement of food supply and reduction of hunger *(MDG: extreme poverty and hunger halved by 2015)*	To increase food production and productivity	Creation of an enabling environment to increase and diversify food production	10 10 50 4 6	Approve and implement the draft National Land Policy and the 99-year lease proposals for SNL. Formulate and implement a National Food Security Policy and Strategy/Action Plan. Reorganise and rationalise land use for diversified crop production and promotion of horticulture in rural, peri-urban and urban areas. Modernise farming methods to increase yield. Improve youth and children's attitude towards farming.
		Increasing food production and productivity in areas with reliable rainfall	75	Promote and implement programmes for crop diversification, crop rotation and value-adding for better profits and higher nutritional value.
		Increasing food production and productivity in dryland areas	1 9 10	Advocate the mainstreaming of the National Drylands Development Programme. Adopt appropriate dryland cultivation technologies, diversify the cropping pattern, and focus on drought tolerant crops suitable for processing and value-adding. Investigate the suitability of crops including cassava, pigeon pea, sisal, hemp, sorghum and oilseed crops such as cotton, sunflower and groundnuts and implement programmes.
		Increasing food production and productivity in irrigated areas	1 4	Assess and evaluate the economic performance of major irrigated crops. Explore the options and opportunities for diversification and promote agro-processing of irrigated crops.

CAADP Pillars	Objectives	Priority Areas	Cost (E'm)	Actions/Strategies[29]
	To improve access to and utilisation of nutritious quality food	Improvement of access to nutritious quality food at household level	20 3 10 18 2	Increase production of and access to nutritious food such as fruits and vegetables crops at household level. Promote awareness of nutritional needs and standards, appropriate health lifestyles and dietary diversification. Reinforce community based nutrition activities and intensify nutrition education Strengthen the capacity of the Food and Science Technology Unit of the Agricultural Research Department in the MOAC Design a system for monitoring food quality of locally produced and imported foods
		Improvement of efficient food utilisation	80 10 200	Improve general and environmental health status Strengthen the capacity of institutions dealing with food quality Increase access to safe water supply and sanitation.
		Development of food processing and value-adding activities in agriculture	25 5	Support the development of food processing activities both as a business and for use at the household level. Improve food-processing technologies (drying, preservation, etc.)
		Promotion of alternative non-agriculture rural livelihoods and income earning opportunities	10 200 10	Develop and strengthen sustainable alternative livelihoods and vocational skills in non-agricultural activities, such as gathering of forest products, aquaculture, bee keeping, handicrafts, manufacturing, etc. Improve access to credit and micro-credit to finance income-generating activities. Promote small and medium enterprises and tourism.
		Building and strengthening the capacity for monitoring and evaluation, disaster prevention and preparedness/response	3 2 22 250 100 120 1,200	Design an integrated system for monitoring and evaluation of the agricultural sector performance and build the related institutional capacity Strengthen the national early warning on food security at national and household level Formulate and strengthen drought mitigation measures/mechanisms Build and improve social safety nets Formulate a programme for agricultural input (seeds and fertilizers) subsidy/provision for vulnerable farmers Support OVCs with agricultural development and production (community fields, household fields, chicken and small-stock, school gardens). Implement a comprehensive school feeding programme for all OVCs.

CAADP Pillars	Objectives	Priority Areas	Cost (E'm)	Actions/Strategies29
4. Development of agricultural research, technological dissemination and adoption to sustain long-term productivity growth	To establish efficient and integrated research and extension services	Strengthening linkages between research and extension services	25 5	Promote the adoption of well-researched extension packages suited to the different agro-ecological zones of the country and the socio-economic contexts of different farmers. Conduct research on improving efficient and cost effective indigenous farming methods, including species (chicken, goats, pulses, etc.).
		Reorientation of agricultural research towards improving food security	50	Support needs-based research on food processing, preservation and storage technologies, especially on products that are mostly produced by the poor, particularly women.
5. Integration of livestock, fisheries, forestry, and environment in agricultural development *(MDG: ensuring environmental sustainability)*	To establish community-based natural resource management	Establishment of community-based natural resource and land management committees	50	Introduce and implement community-based natural resource and land management including educational and practical training programmes.
		Establishment of sustainable range management	4 15	Investigate the status of rangeland management, develop rangeland degradation monitoring indicators, and recommend proper animal stocking rates, fencing and rotational grazing. Implement sustainable range management practices for improved communal grazing and promote the formation of community livestock groups.
		Establishment of sustainable forest management	15	Improve the sustainable exploitation of natural forest and woodlands.
		Establishment of biodiversity conservation	30	Improve the management of biodiversity through clearing of alien plant infested areas.
	To stimulate the commercialisation of the livestock and fisheries industry	Improvement of animal quality and health	10 10 4	Intensify and ensure the territorial integrity of various livestock disease controls and prevention measures. Strengthen and enhance disease surveillance, monitoring capacity, epidemiological data and information management, particularly on trans-boundary disease. Institute an appropriate national livestock identification system, compatible with similar regional systems, for the traceability of animal disease and the enhancement of trade.
		Improvement of beef production	20 4 200	Stimulate entrepreneurship of SNL farmers in beef production to satisfy regional and local demand. Design and implement programmes to improve cattle breeding Increase quality beef production ten-fold to satisfy EU quota.

CAADP Pillars	Objectives	Priority Areas	Cost (E'm)	Actions/Strategies29
		Improvement of dairy production	40 2 2	Assess and remove the major constraints in dairy production, such as quality of stock, diseases and poor animal nutrition. Demarcate suitable SNL areas for potential milk-producing areas, and encourage increased smallholder dairying. Investigate and develop the opportunities for value-adding activities in the dairy industry.
		Improvement of small-stock production	40	Promote the production of high quality poultry, pigs, goats, sheep, and other small-stock.
		Improvement of sustainable feed and fodder production	24	Promote and develop rainfed and irrigated production - and diversification -of fodder crops with a high nutritional value in SNL production systems and government farms
		Improvement of fisheries and aquaculture production	10	Promote and develop aquaculture in all parts of the country to boost income and provide nutritious food.