



NATIONAL ASSESSMENT REPORT - SWAZILAND -

to the

World Summit on Sustainable Development 2002



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EXECUTIVE SUMMARY

Swaziland's national policy agenda for sustainable environmental and socio-economic development is set out in a long-term vision, the National Development Strategy (NDS). In line with the NDS and other national initiatives such as the Poverty Reduction Strategy and the national Environmental Action Plan (SEAP), the overall developmental objective of Swaziland is the reduction, and in due course the elimination, of poverty.

Swaziland, with a population of close to 1 million living on just 17,000 km² (making an average density of 53 people/km²) is the smallest country in Southern Africa. The country has been classified as a lower middle-income economy with a per capita gross national product of US\$1,360, but distribution of income is unequal and nearly half the population live below the national poverty line. Although its population is largely rural (approximately 70%), the structure of the economy has shifted over the years from an agricultural base to manufacturing – currently accounting for 36% of GDP.

Swaziland plays an active role in regional integration and trade and is a member of the Southern African Customs Union, the Southern African Development Community and the Common Market for Eastern and Southern Africa. Since the collapse of the apartheid regime in South Africa as well as political changes in Mozambique in the early 1990s, competition for foreign direct investment in the region is challenging.

Despite enjoying relative peace and prosperity and good economic performance over past decades in terms of growth and fiscal stability, Swaziland now faces a number of challenges. These include maintaining macro-economic stability while providing better education and health, governance issues and gender inequality, high unemployment rates, the need to attract new investment and adapt to a changing trade environment. The challenge is to devise policies that will bring about fast economic growth and at the same time enhance equity in the society and minimise further environmental degradation.

The major challenge is HIV/AIDS, which has been proclaimed as a national disaster in view of its implications for the social and economic development of the country. With one of the highest rates of HIV sero-prevalency in the world, Swaziland risks losing the gains it has made since independence in terms of human resource development.

With many donors winding down their assistance in favour of a more regional approach, the European Community remains one of Swaziland's main development partners and is the largest multilateral donor.

Swaziland's achievements

Swaziland is able to record a large number of successes in its pursuit of sustainable development and the implementation of Agenda 21. In almost all relevant chapters of Agenda 21, the country has made progress – both on paper and physically.

The greatest achievement has been the development and implementation of sustainable development strategies – concentrating on both the development side (NDS) and environment side (SEAP).

Infrastructural improvements have happened, international and regional trade has increased, citizen access to health, education and shelter has improved (though an increasing population has had negative impacts), international cooperation remains active with Swaziland participating in numerous multilateral trade and environmental fora, a strategy to combat poverty has been developed and is being implemented, institutional strengthening in key development sectors has taken place and investments in employment creation and attracting FDI is ongoing.

However, such achievements are often lost in the number of emerging issues and constraints facing the country.

Swaziland's critical threats

The key threats to sustainable development in Swaziland, as identified during the consultative process for the preparation of this report can be summarised as follows:

- Swaziland's high dependence on natural resources e.g. fuelwood, medicinal plants, land and water;
- The loss of biodiversity and increasing threats to existing ecosystems (veld burning, overgrazing, demand for fuelwood, land conversion and expansion of agricultural schemes);
- Population growth and human settlement (both urban and rural);
- Governance issues;
- Human health and the HIV/AIDS epidemic;
- Global atmospheric and climate change and increased susceptibility to floods and droughts;
- Poverty and inequality in wealth distribution;
- Threats resulting from water stress for both human and environmental requirements;
- Land issues, particularly equitable access to land and natural resources, but including land degradation;
- The challenge of ensuring that development and industrialisation are sustainable and appropriate;
- Improving access to existing knowledge and technologies; and
- The need for a stable macroeconomic environment for stimulating private entrepreneurship and attracting foreign investment

Swaziland's national strategy for sustainable development

Swaziland's strategic approach to sustainable development is enshrined in the National Development Strategy (NDS) and the Swaziland Environment Action Plan (SEAP).

Both strategies support the Government of Swaziland's overall mission which is *"to provide a climate and infrastructure that will progressively maximise the quality and security of life of the people of Swaziland and make the best use of the country's natural and human resources"*

The SEAP follows the vision of the NDS, and is divided into two parts, the first being the actual action plan, and the second an overall land and environment policy framework. Both the NDS and the SEAP are concerned with sustainable development, with the NDS focusing more on the 'development' side and the SEAP more on the 'sustainable' side.

Sustainable development challenges

As with many developing countries, the challenges that Swaziland face in pursuit of sustainable development are often compounded by the need to resolve issues and needs immediately leaving little time to properly plan effectively. Critically important issues continue to hamper the country's development (as above) with no tangible solution to mitigate these in sight.

Despite the development of the SEAP and NDS in the late 1990s as core policy initiatives for sustainable development, produced through wide consultation and discussion, the challenges raised in those documents remain to a large extent unfulfilled with the critical issues or concerns identified still poorly addressed.

Social and Economic Challenges

Poverty remains the country's greatest challenge as it is viewed to be the source of many of the country's development challenges. Being classified as a lower-middle income country has limited donor support and hence the country's ability to qualify for softer development finance. The HIV/AIDS crisis, though receiving priority attention by Government and NGOs,

is creating havoc in the rural areas with rapidly increasing numbers of AIDS orphans and additional strain on existing health services. Food security is perilous as demonstrated by the current (2002) drought where 144,000 people are registered as "desperate". The actual figure according to NGO assessments is about 207,000. Total numbers are expected to rise to 250,000 by December 2002. The drought conditions have been exacerbated by the effects of HIV/AIDS. NGOs are finding that over 10% of households are headed by children who have lost both parents and a significant number by very old grandparents who have no capacity for physical work. The extended family system, which in the past supported such cases, is close to a complete collapse.

Creating an enabling-environment for economic growth and structural transformation remains an overriding challenge for the country. Ensuring effective growth and performance of the private sector, particularly in the export sector, is seen as key to improving the balance of payments position, and therefore a reduction in foreign ODA dependency.

Under employment is another major challenge with an estimated 56% of the population of working age, unemployed.

Challenges for the Conservation and Management of Resources for Development

Swaziland has been endowed with a great wealth of natural resources – particularly its biological resources. Ever increasing poverty combined with a high population growth is resulting in the rapid degradation of these resources in a vicious cycle of declining availability and quality. Poor land management practices, particularly of common land, is rapidly degrading this valuable asset that in turn places additional stresses on the livelihoods of the communities that depend upon it.

Land degradation, fragmentation of habitats, alien plant invasions and rapid degradation of the biological resources are the key challenges to be addressed by the country. The various policy and legislative initiatives launched by government since Rio have so far remained mostly on paper, are not cross-sectoral and most importantly are not matched by adequate funding and expertise to implement the measures recommended by stakeholders.

Institutional strengthening of the SEA and other agencies involved directly or indirectly in environmental management is a major challenge for the country. Increased technical capacity within the SEA is needed to manage the increasing range of environmentally related issues the SEA are called upon to deal with. Issues including solid and hazardous wastes, climate change and air and water quality issues all require skilled management which is currently limited both within the SEA as well as nationally.

Legislation relating to broad environmental issues (e.g. land, water and toxic chemical management) are outdated and urgently updating. Overlapping jurisdiction, whereby various agencies in national government have similar mandates, negatively impacts upon progress.

The poor quality of environmental data with which to plan or even assess the level of environmental degradation is an major constraint. There are few agencies devoted to the compilation, organisation and interpretation of such basic data and even fewer means of disseminating such little data to users.

The long-term protection of representative ecosystems of Swaziland is seen as key to sustainable tourism and conservation initiatives. The greatest challenge will be to fast track the identification and declaration of such protection worthy areas and to design appropriate management structures (community based) to ensure that future generations will have the opportunities to benefit from their conservation.

Community based management in resource conservation will be a challenge in a society where threats to the resources are significant. The challenge will be to develop structures that would support wider ecosystem management the benefits from which would be shared between the economy, society and biodiversity in general.

Challenges faced by Major Groups

The major groups operating in Swaziland face huge challenges in executing their mandates. The HIV/AIDS crisis is testing the major groups abilities to provide support. The provision of basic humanitarian support to communities devastated by the HIV/AIDS, drought and food insecurity, remains their greatest challenge. International access to financial support for their various programmes is hampered by regional and global humanitarian demands placed on such sources with donor priorities being driven by both regionally and globally agendas.

Purpose of this report

The World Summit on Sustainable Development (WSSD) to be held in Johannesburg, South Africa, in 2002 will mark the ten-year anniversary of the Rio Earth Summit. This provides an ideal opportunity for countries to review their progress in implementing sustainable development options as described in Agenda 21.

This document provides an assessment of Swaziland's progress since UNCED.

National consultations

Public participation was called upon to help formulate and review this National Assessment. Four consultative workshops were held which brought together government, non-government, private sector, technical experts and interested parties. As a result, this assessment report presents the consolidated views of a broad cross-section of society, including government (at national, regional and local levels) and civil society (urban and rural communities, non-governmental organisations, academic and training institutions and the private sector). Not all of it necessarily reflects the views of everyone, but in the interests of consensus, and in recognition of the fact that sustainable development is best pursued in an environment of open discussion and debate, the Government of Swaziland has decided that the report should fairly reflect both the achievements and the challenges.

Preparation of this report involved consultations at various levels and stages. The government identified two consultants - one with a socio-economic background and one with an environmental management background – to undertake the preparation of the national report. The consultants were provided with terms of reference to prepare the national report which included stakeholder dialogue and four workshops.

A national stakeholder workshop with participants from government institutions, private sector, non-governmental organisations and academic institutions was held. In this workshop, participants were informed in some detail about the WSSD, its history and purpose for the WSSD Johannesburg summit.

Preliminary issues of concern to both Swaziland and sustainable development were discussed by the participants. Following the national workshop, three regional workshops were held targeting a range of regional stakeholders.

After a draft of the report was prepared incorporating the views of participants from the workshops, the document was distributed to stakeholders for final comments and verification. Comments were received, incorporated into the document and finally the government endorsed the document.

Preparatory process

The preparatory process for Swaziland's participation at the World Summit on Sustainable Development (WSSD) has been spearheaded by a National WSSD Steering Committee (WSSD-NSC), chaired by the Director of the Swaziland Environment Authority. The WSSD-NSC comprised members drawn from government ministries and departments and Non-Governmental Organisations.

Organisation of the report

The report is divided into five chapters; the first chapter is an Introduction. The second chapter covers a review of the main achievements by Swaziland. Chapter three is on the main implementing constraints and the fourth chapter is on the main challenges faced by Swaziland. The fifth chapter is an assessment of Swaziland's sustainable development

strategies. The sixth chapter is on Swaziland's approach to sustainable development and the final chapter is a look at a way forward.

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Acronyms

AIDS	Acquired Immuno-Deficiency Syndrome
BSAP	Biodiversity Strategy and Action Plan
CBD	Convention of Biological Diversity
CCD	United Nations Convention to Combat Desertification
CSO	Central Statistics Office
EC	European Commission
EIA	Environmental Impact Assessment
ESRA	Economic and Social Reform Agenda
EU	European Union
FDI	Foreign Direct Investment
GEF	Global Environment Facility

GDP	Gross Domestic Product
GOS	Government of Swaziland
HIV	Human Immuno-Deficiency Virus
LSDI	Lubombo Spatial Development Initiative
LUPS	Land Use Planning Section
MAP	Millennium Action Programme
MEE	Ministry of Enterprise and Employment
MEPD	Ministry of Economic Planning and Development
MOHSW	Ministry of Health and Social Welfare
MHUD	Ministry of Housing and Urban Development
MNRE	Ministry of Natural Resources and Energy
MOAC	Ministry of Agriculture and Co-operatives
MTEC	Ministry of Tourism, Environment and Communications
NEEP	National Environment Education Programme
NGO	Non-Governmental Organisation
NDS	National Development Strategy
ODA	Overseas Development Assistance
SADC	Southern African Development Community
SEA	Swaziland Environment Authority
SEAP	Swaziland Environment Action Plan
SNL	Swazi Nation Land
SNTC	Swaziland National Trust Commission
STI	Sexually Transmitted Infections
TDL	Title Deed Land
UNCED	United Nations Commission on the Environment and Development
UNCHS	United Nations Center for Human Settlements (Habitat)
UDP	Urban Development Project
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNISWA	University of Swaziland
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

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1 INTRODUCTION

1.1 Location

The Kingdom of Swaziland covers a land area of 17,364 square kilometres, lies between 150 and 1,800 metres above sea level, and is situated about 30 degrees south of the Equator. It is a landlocked country surrounded to the north, west and south by the Republic of South Africa and to the east by the Republic of Mozambique.

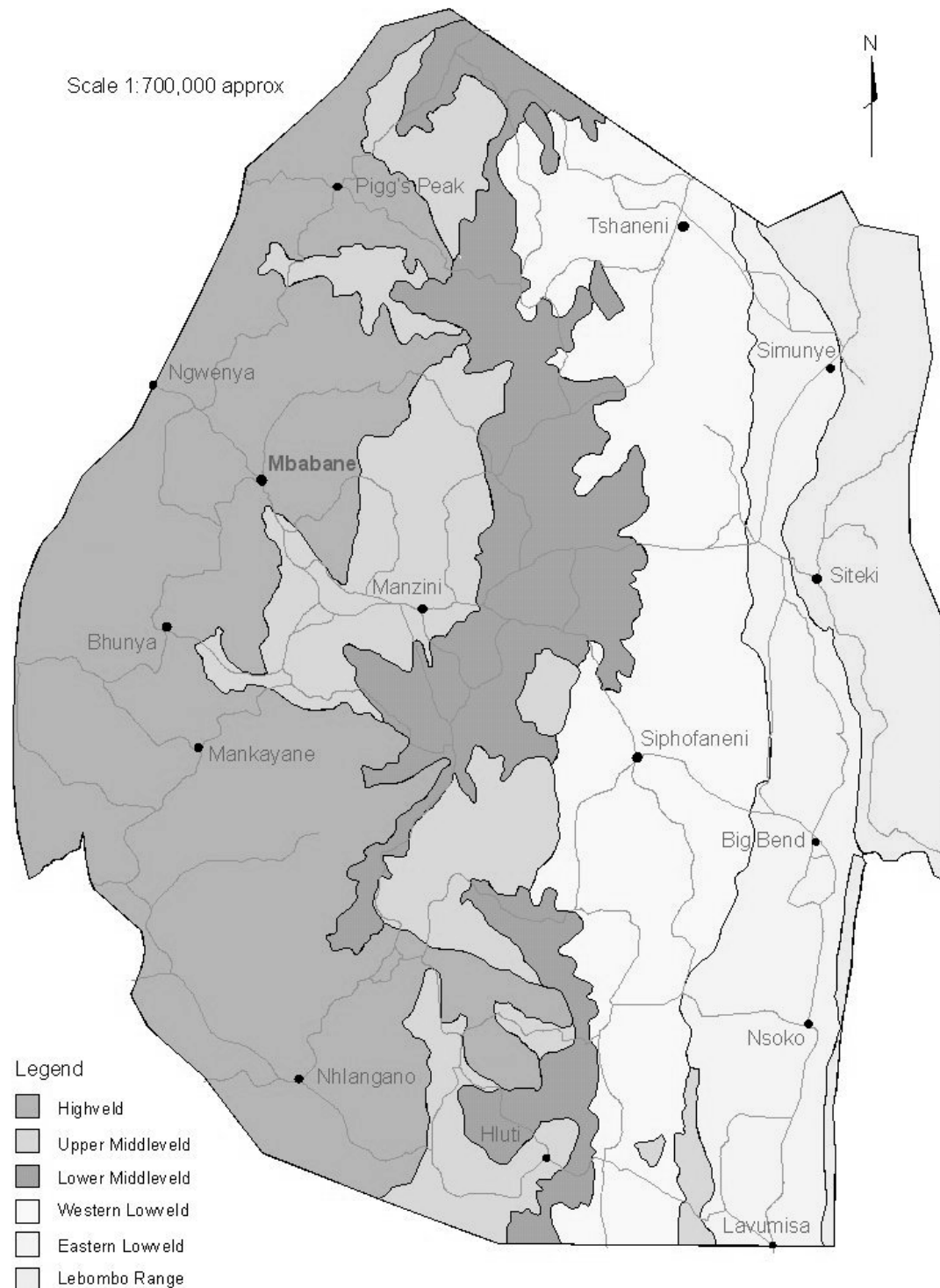
Figure 1 - Map of Swaziland



1.2 Physiography

The country can be divided into six physiographic regions which take account of geology, climate, landforms and vegetation. These are: the Highveld; the Upper Middleveld; the Lower Middleveld; the eastern and western Lowveld and the Lubombo Escarpment

Figure 2 - Swaziland Physiographic Map



1.3 Biodiversity

1.3.1 Fauna

Although Swaziland was once well-endowed with a large variety of animal wildlife, including the elephant and the lion (which are part of the national emblem), primarily as a result of habitat destruction, and also because of hunting, most of the country's largest mammal species have become extinct in the wild. There is still a wide diversity of bird life. The latest bird atlas lists 489 species, but they are also being diminished largely through habitat destruction, hunting, and poisoning by toxic chemicals.

Approximately only 4% of Swaziland's total land area is protected. This is well below the internationally recommended 10%. The main existing fauna reserves are:

- Malolotja;
- Mlawula;
- Hawane;
- Mantenga Nature Reserves (under the Swaziland National Trust Commission);
- Hlane Game Sanctuary (Royal game reserve);
- Mlilwane;
- Mkaya;
- Mbuluzi Nature Reserves (private)
- Phophonyane and Mhlosinga Nature Reserves (private, but as yet unproclaimed, reserves)

1.3.2 Flora

Swaziland has a wide diversity of flora. About 2,600 species of social, economic and cultural importance have been collected and recorded. It also has numerous endemic plant species which only occur in Swaziland. The main vegetation types are savannah, grasslands, forest, and bush.

Natural processes, e.g. erosion, and human activities, i.e. agriculture, forest plantations, and human settlements, are causing a decrease in the diversity and distribution of Swaziland's natural flora. Large-scale irrigated agriculture, particularly monoculture agriculture such as sugar cane, pineapple and citrus production has resulted in clearing of large tracts of land and destruction of the natural vegetation. This in turn, results in loss of the animals and insects which depend on it.

1.4 Land use

1.4.1.1 *Present land use*

Reliable information on the present land use is a prerequisite for the planning and implementation of programmes related to land and environment. Spatial and tabular land use information is available for Swaziland with the following main categories distinguished: crop agriculture, animal husbandry, forestry, extraction and collection, nature protection, settlement and industry, and land not used. Several of these land uses are found in complex patterns, such as small-scale traditional farming in close association with communal grazing. Often there is a primary and secondary use of the same land, e.g. extraction and collections takes place in savannas and woodlands where animal husbandry is the primary use. The primary use of national parks is nature protection, but recreation is an important secondary use.

Table 1-1 gives an overview of the present main land uses in Swaziland based on the inventory available at scale 1:250,000. These categories are the most relevant subdivisions of the major land uses mentioned above. The large-scale commercial crop agriculture can be

subdivided into the following: rainfed field cropping (2.0%, mainly cotton and pineapple), irrigated field cropping (3.7%, of which 3.5% sugarcane) and irrigated tree cropping (0.3%, mainly citrus).

Table 1-1 - Main land uses in Swaziland

Code	Groupings of main land uses	km ²	%
SA	Small-scale subsistence crop agriculture (rainfed annual field cropping)	2140	12.3
LA	Large-scale commercial crop agriculture (irrigated and rainfed field/tree cropping)	1040	6.0
		8670	50.0
CH	Extensive communal grazing	3320	19.1
RH	Ranching	1400	8.1
F	Plantation Forestry	670	3.9
P	Parks, Wildlife Management	80	0.5
S	Residential, Industry, Recreation	40	0.2
W	Water Reservoirs		
Total		17360	100

Source: Remmelzwaal and Vilakati, 1994

The above figures are gross figures. Substantial reductions have to be applied to arrive at net percentages. For instance, about one third of the area occupied by subsistence cropping is used for grass strips and infrastructure, hence the estimated net percentage is no more than 9. Part of the extensive communal grazing area is actually not utilized for grazing because of steep slopes and dense woodlands, hence an estimated net percentage of 42.

1.4.1.2 Land tenure

Land tenure arrangements play an extremely important role in the management of land and the environment. The history of land tenure arrangements in Swaziland is very complex. There are three main categories of land tenure:

- Swazi Nation Land (SNL)
- Crown Land
- Private Freehold or Title Deed Land (TDL)

There is in fact a fourth category of Concession Land, which is minor and not well defined. Swazi Nation Land is held in trust by the King for the Swazi Nation. Crown Land is land over which Government holds title.

Table 1-2 gives an overview of the main tenure categories based on a national inventory (Remmelzwaal and Vilakati, 1994). Title Deed Land is subdivided into rural and urban. Swazi Nation Land is subdivided into SNL sensu stricto, comprising all the land that was SNL at independence, and SNL Purchased, comprising all freehold land purchased after independence and returned to SNL status. There is still, however, a title on purchased SNL. The subdivision of SNL is made on the basis of the control over the land.

The results of Table 1-2 can be summarized as follows. The total of TDL amounts to about 25 percent, and the total of SNL to about 74 percent. Of the combined total of SNL sensu stricto and SNL purchased, approximately 75% is controlled by chiefs, 9% by MOAC, 4% by Tibiyo, 3% by the National Trust Commission and the remaining 9% is leased.

Table 1-2 - Land Tenure Types in Swaziland

LAND TENURE TYPE	km²	%
Swazi Nation Land, sensu stricto		
- controlled by chiefs, communal	8 470	48.8
- controlled by chiefs, non-communal	140	0.8
- controlled by Tibiyo	80	0.5
- leased to companies or individuals	140	0.8
Subtotal	8 830	50.9
Swazi Nation Land, purchased		
- controlled by chiefs, communal	1 010	5.8
- controlled by Tibiyo	420	2.4
- controlled by National Trust Commission	460	2.6
- leased to companies or individuals	980	5.7
- controlled by Ministry of Agriculture	1 180	6.8
Subtotal	4 050	23.3
Title Deed Land, urban area	130	0.7
Title Deed Land, rural area	4 240	24.4
Crown Land	70	0.4
Water Reservoirs	40	0.2
Total	17 360	100

Source: Rimmelzwaal and Vilakati, 1994

1.5 Vegetation

Vegetation in Swaziland is classified into 22 units within the physiographic zones. In the Highveld, where short grassland with forest patches is the dominant vegetation type, there are five vegetation units. The Upper Middleveld, characterised by tall grassland with scattered trees and shrubs, has six vegetation units. Three units are located in the Lower Middleveld, which is typically broad-leaved savanna. In the Western Lowveld, dominated by a mixed savanna, there are three vegetation units. In the Eastern Lowveld, there are two vegetation units with Acacia savanna as the main vegetation type. Lubombo is characterised by hillside bush and plateau savanna and has three vegetation units.

1.6 Agriculture

1.6.1 Arable

The agricultural sector plays a vital role in the Swaziland economy. It accounts for as much as 50% of the country's export earnings and is the principle source of livelihood for over 70% of the population. A quarter of agricultural production is maize and cotton on SNL and about 60% is sugar, citrus and pineapple production on TDL (Table 1-3).

Table 1-3 - Production of major crops on TDL and SNL

Crop	Year	Area (ha)	Product (metric tons)	Value (E)
TDL				
Sugarcane	1997/98	38,862	3,886,710	887,970,390
	1998/99	42,585	3,886,431	1,013,063,936
	1999/2000	44,246	4,322,618	1,086,200,000
Citrus	1997/98	29,000	16,885	42,129,000
	1998/99	35,000	14,930	39,886,135
	1999/2000	28,000	7,469	17,180,000
Pineapples	1997/98	184	8,439	2,356,541
	1998/99	210	13,581	5,465,021
	1999/2000	271	13,608	4,968,430
SNL				
Maize	1997/98	65,149	125,205	Not available
	1998/99	55,969	107,340	Not available
	1999/2000	68,533	112,779	Not available
Cotton	1997/98	9,627	16,885	Not available
	1998/99	8,168	14,930	Not available
	1999/2000	10,654	7,469	Not available

The mountainous Highveld zone has relatively humid conditions in summer that promote a vigorous grass growth, which reduce the risk of soil erosion. However, the steep slopes (generally exceeding 18 %) and the associated shallow soils limit dry land or irrigated agriculture in this region. The hilly to undulating Middleveld is the most heavily populated and agriculturally important region. Much of the grassland has been replaced by cultivation of crops such as citrus fruits, pineapples, cotton, maize, groundnuts, beans and vegetables. The intensive farming and livestock grazing have caused problems of soil erosion in some parts of the region. The Lowveld zone supports extensive grazing and limited rain-fed crop production. The crops grown here include sugar cane, cotton, groundnuts and sorghum. The Lubombo range, which has similar soils as the Highveld and upper Middleveld, has limited arable land. Only 12 % of the Lubombo Range is arable land. The main commercial activities include ranching, maize, cotton and minor crop production.

1.6.2 Livestock

Cattle dominate the country's livestock sector and land for their grazing is the predominant land use in Swaziland. About 11,630 km² (67% of the total land area) is used solely for grazing. During the dry season, an additional 2,509 km² (14.4%) which are under cultivation or fallow during the summer, are also used for grazing. The stocking rate is roughly 1.77 heads/ha, which is among the highest in Africa¹.

The condition of the rangeland varies widely. In general, the land used for commercial ranching on title-deed land and on Swazi Nation Land ranches is in better condition (fair to good) than in SNL communal land. Nevertheless, there is still the problem of bush encroachment, specially in the lower Middleveld and Lowveld because of the absence of browsers and the exclusion of fire as a management tool. In SNL grazing lands there appears to be increasing deterioration of the rangelands and signs of severe erosion in many areas.

1.6.3 Forestry

The forest inventory of 1999 indicates that Swaziland has a 45% coverage of forests and woodlands, of which natural forests cover 2.2%, natural woodlands 22.0%, natural bushlands 13.4%, wattle forests 1.4% and plantation forests 6.4%. Forestry is not the only land use of

¹ Annual Statistical Bulletin, 1999 Central Statistics Office

these forests and woodlands. Other land utilisation includes extraction of a variety of forest products, grazing, agro-forestry, nature protection and tourism.

Climatic conditions in Swaziland, with high rainfall and warm temperatures, are very suitable for commercial growing of a specific variety of trees, particularly in the western part of the country (highveld).

The plantation forest category is the large-scale commercial sector based on pine and eucalyptus production with a high level of management. Wattle forestry started mainly as a small-scale commercial activity, however management and distribution of most wattle forests have deteriorated over the past years, which has resulted in uncontrolled wattle growth and spreading.

The commercial forestry and related processing industry forms a very important part of the economy of Swaziland, contributing approximately 15% to GDP, mainly through exports². The forestry sector, including the secondary processing sector, provides employment to approximately 8 000 people, which is 8% of total formal employment in Swaziland. Commercial forestry in Swaziland is entirely run by private companies, of which Sappi-Usutu, Mondi Forest and Shiselweni Forestry Company are the largest. These three companies, together with some smaller ones, manage a total area of about 130,000 ha covered by forest plantations. Of this total area, about 25,000 ha (20%) is unplanted and used for infrastructure and for the protection of biodiversity and ecosystems.

Main species are pine (predominantly *Pinus patula*, but also *P. radiata* and *P. taeda*) and eucalyptus (mainly *Eucalyptus saligna* and *E. grandis*), covering about 80 and 20% respectively of the planted area. The productivity is relatively high, about 15-20 cubic metres/ha per annum for pine. Overall annual yield is approximately 1.2 million cubic metres of wood with a total value of about E650 million, which is largely exported as pulp, logs and timber.

The current deforestation and degradation of the natural forest and woodland areas are caused by a combination of factors such as conversion of land to agriculture, uncontrolled extraction of forest products from communal land and large livestock populations. Forest degradation is further compounded by a number of underlying socio-economic conditions, including increasing population pressure, that counteract rational utilisation of forest and woodlands.

The importance of the indigenous forest and woodlands in Swaziland is not fully recognised, and little is documented about the present utilisation and potential value, e.g. for cultural and medicinal purposes. The national forest authorities have inadequate capacity and budgets to analyse, plan and manage the forest resources. Consequently, the broadly formulated national forest policies that exist have not been transformed into action plans, and similarly the forest legislation, which is considered fragmented and insufficient to enforce national policies, has not been revised for a long time.

1.7 Environment

Major environmental concerns centre on the depletion of the natural resources base and pollution. Air and water quality are constantly being polluted, not only by local industries but also by transboundary pollution.

Unsuitable land use, poor land management and lack of appropriate information systems are resulting in declining production, degradation and contamination of the environment. The most serious environmental effects of land degradation include deforestation, loss of biodiversity, soil depletion and range degradation.

² Draft Forestry Policy, 2001 MOAC

1.8 Demography

The 1997 total population of Swaziland was 929,718 people with an annual population growth rate of 2.8%. According to a Central Statistics Office (CSO) report in 1999³, the population density distribution across the country indicates that:

- 69.9% of people live on SNL
- 7.1% of people live on individual tenure farms
- 16.7% of people live in urban areas
- 6.3% of people live in company towns and estates

The fact that most of the country's population lives on SNL, an area that it is largely accessible to people, and that is typified by scattered homesteads practising subsistence farming, probably makes it the most vulnerable part of the country to resource utilisation. Current estimates indicate that about 108,000 people (13% of Swaziland's population) live in the country's main cities of Mbabane and Manzini and their surrounding areas. More than 60% of the residents live in informal, unplanned communities on un-surveyed plots which. Less than half of the informal settlements have safe piped water, and fewer than 20% have access to proper sanitation systems. The renting of rooms within households is not uncommon in the informal settlements of peri-urban areas. These areas exhibit all the classic signs of rapid and unplanned urbanisation common to all developing countries.

The total fertility rate (TFR) of 5.6 lifetime births per woman recorded in 1991 dropped to 4.7 in 1997.

The under 15 age group accounted for 48% of the population in 1986 and increased to 54.3% in 1997. The skewed distribution of the population results in a high dependency ratio, with 104 persons to be supported by 100 of the working population.

Table 1-4 illustrates the spatial distribution of the population according to physiographic region. Table 1-5 illustrates population density according to land tenure.

Table 1-4 - Ecological zones of Swaziland with land area, population, density, homesteads and persons per homestead

Ecological zone	Area		Population		Density	Homesteads	
	(km ²)	(%)	(1997)	(%)	(pers/km ²)	Homesteads	Density
Highveld	5412.8	31	292401	31.4	54.1	41383	7.1
Middleveld	4162.1	24	372237	40.1	89.4	40565	9.2
Lowveld	6347.7	37	212638	22.9	34.5	31940	6.7
Lubombo Range	1441.7	8	52512	5.6	36.4	7380	7.1
Ave/total	17364.3	100	929788	100	53.5	121268	7.7

Source: CSO (1999)

³ Annual Statistical Bulletin, 1999 Central Statistics Office

Table 1-5 - Population Density in Swaziland according to Tenure (1997)

Area / tenure	Area (km ²)	Population	%	Density (pers/km ²)
Swazi Nation Land	10277.4	649430	69.9	79.1
Freehold Title Deed	5102.7	65860	7.1	11.2
Gazetted Urban Areas	182.7	156237	16.7	855.2
Company Towns	1801.5	58191	6.3	32.3
Total	17364.3	929718		

Source: CSO (1999)

1.9 Socio-economic context

Swaziland is classified as a lower middle-income developing country with a GDP per capita of US\$1,298 (1999)⁴. Its economy grew rapidly in the late 1980s, recording an average of approximately 9% during the period 1986-1990. This growth declined thereafter to an average of 3.4% for the period 1992-97. However, despite the relative impressive growth and wealth, about 66% of the Swazi population live under abject poverty or continuing vulnerability to it.

Table 1-6 - Percentage Growth of GDP, at constant Prices of 1985

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agric	-21.8	-5.0	2.1	-3.3	26.2	-3.3	2.5	8.9	-4.9	-3.9
Forestry	-10.7	9.7	9.5	3.7	-5.4	16.5	-6.0	1.7	2.3	2.8
Mining	34.4	4.1	7.0	-3.3	-35.6	21.7	27.0	-14.0	-22.8	-45.0
Manufacturing	2.8	0.9	4.4	4.0	2.4	5.5	1.6	1.3	1.5	0.9
TOTAL (including all sectors)	1.0	3.6	3.4	3.8	3.9	3.8	3.3	3.5	2.0	1.9

Source: Economic Planning Office, 1999

Table 1-6 above show that since 1992, the major contribution to GDP has come from the manufacturing sector, followed by agriculture. Agriculture contribution is mainly from sugar cane growing on Title Deed Land, even though in recent years more land from SNL has been converted from subsistence farming into sugar cane growing. The economy is expected to grow in real terms (i.e. after allowing for the impact of inflation) from 2.3% in 1998/99 to about 3.3% in 2001/02. According to 1999 estimates, the per capita income for Swaziland is \$1,360 and a human development index of 0.66. Although according to the World Bank classification Swaziland is a middle-income country, it still faces special development problems such as high population growth rates, income distribution being skewed against the poor, inequitable distribution of benefits of growth through public expenditure, high unemployment rate and very high and increasing prevalence of HIV/AIDS.

The 1995 Swaziland Household Income and Expenditure Survey indicates that the richest 10% control almost 40% of the national income while the poorest 40% control only 14%. In addition, the population is growing at 2.7% with the proportion of the youth above 40%. According to 2000 estimates, national HIV/AIDS prevalence rate is 34.2% amongst pregnant women. The highest infection rates are found among the 15-49 years age group, who form the skilled and productive segments of society. The whole society is vulnerable to HIV but the poor are least able to cope with its illnesses and associated costs. It can result in increased impoverishment of households with the elderly and children being the most vulnerable. By

⁴ UNDP Human Development Report, 2002

1999, orphaned children were estimated around 40,000 out of a national population of 927,000.

Employment opportunities have provided the major source of income for many of families in the past. However, with the unfavourable economic conditions, employment opportunities have declined considerably. The reduction in foreign direct investment that was experienced from 1992 resulted in surges in the ability of the formal sector to create wage employment as well as increases in government annual fiscal deficits. According to 1995 estimates, unemployment is estimated at 22%, with the problem being worse for the age group 15-49, whose unemployment levels are above 40%. Unemployment is worse in rural areas than in urban areas, i.e. it is currently estimated at 25% and 15% respectively. During the period 1990 and 1997, formal paid employment increased by an average of 2.1%, while in the plan period 1999/00-2001/02, it is estimated to grow at less than 1%, mainly due to the slow growth of the economy and the recent restructuring of the manufacturing sector which has seen a lot of retrenchments.

In an effort to address the increasing development threats posed by unemployment, the government has embarked upon a major international drive to attract foreign investors. A total of 18 foreign companies in the manufacturing and textile industry have indicated their willingness to invest in the country in 2002 at a total investment package of E188 million. Diversification in the area of investment is expected in future years so as to reduce the associated risks.

Agriculture also provides a source of livelihood for the rural people and a source of inputs for the manufacturing sector. But rural households have been unable to meet their subsistence requirements despite providing a livelihood for about 70% of the households. Swaziland is a food deficit country. Previous studies indicate that only 40% of the homesteads produce enough food to meet their needs. The remaining poor produce less than necessary to meet the basic needs of life, including food, health and basic education. Within rural areas, the worst poverty levels are found in the Shiselweni and Lubombo regions. Thirty percent of the urban population is also poor. The present levels of poverty are going to have multiplier effects on the growth prospects thereby affecting negatively the welfare of future generations. Many households will be denied satisfactory access to education, health care, food energy and clean water.

1.10 Governance

The SADC Human Development Report 1998 argues that sustainable human development cannot be achieved in the absence of the structures and processes of good governance. The characteristics of sound governance are: constitutionalism, legitimacy, accountability, transparency, participation by civil society, and the rule of law. Swaziland, like other countries in Africa, faces the interrelated challenges of establishing good governance with an enduring system of democracy and sustainable development. There is no doubt that history, custom, law and tradition have affected the governance structure in Swaziland.

The system of governance in Swaziland has evolved from a long history, dating from pre-colonial times. The General Law and Administration Proclamation (No.4 of 1907) established the Roman-Dutch Common Law, while the Constitutional Law Act (No. 50 of 1968) created a Westminster type of administration that provided law courts, a civil service, a bicameral parliament and the cabinet presided over by the Prime Minister. There has thus been an inter-play of the parliamentary system of governance from the British and the traditional system that is underpinned by the monarchy.

These two systems have shaped the present pattern of national political processes, laws and policies. Consequently, the country has a dual system of governance. Swaziland's type of governance is such that the western parliamentary and the traditional system, based on the Tinkhundla, run parallel. An Inkhundla is a traditional meeting place where matters of local concern are discussed. In modern Swaziland, the Tinkhundla, have evolved into economic

growth points and local government administration centres. Each Inkhundla is made up of about 10 chiefdoms (Imiphakatsi). Currently, there are 55 Tinkhundla centres, that also double as constituencies for parliamentary elections under the modern system of governance. The Tinkhundla system is a vehicle for the implementation of government activities.

1.10.1 Law reform and constitutional development initiatives

The government's efforts to develop a comprehensive national programme on governance stems from the realisation that both the economy and the political environment are not being efficiently managed and there is insufficient involvement of the population in the decision making process.

This is partly due to the constraints imposed by the dual system of government and the existence of two sets of laws, the traditional and the Roman-Dutch. The second critical factor has arisen from two review commissions, where the people fully participated and made submissions and demands. The three key demands of the people were:

- direct representation;
- universal suffrage; and
- the need for a written constitution.

The first two have been implemented and the constitutional review process is ongoing with a new constitution likely before the end of 2002.

The evolution of a national programme on governance is also ongoing under "Capacity Strengthening for Good Governance", a UNDP and Tibiyo Taka Ngwane sponsored project, whose objective is the "establishment of an environment of peace, stability and sustainable economic and human development".

Current activities include the codification of customary law and its integration into modern law. The Codification of Swazi Law and Custom Project is supported by the Government of Swaziland, Tibiyo Taka Ngwane and UNDP. The importance of the project lies in the fact that Swaziland has a dual system of government where a traditional system coexists with the modern system. The traditional system is based on an unwritten set of Swazi Law and Custom which sometimes results in uncertainties, ambiguities and inconsistencies in its interpretation and has very limited and restricted areas and scope of application as it only applies to people of Swazi origin.

The absence of texts and other documents concerning customary law and practice combined with the relative lack of reliable precedence, has, over the years, been a source of considerable frustration for legal practitioners and scholars, in particular, and the judicial system in general.

The main purpose of the process will be the identification of facts and or distortions of Swazi Law and Custom as well as highlighting how customary law facilitates development and serves the nation in its governance. One of the expected outcomes is that siSwati legal concepts, terms and maxims will be clearly defined in the final document to avoid adapting English concepts which may not necessarily have the same meaning and that English concepts will only be adapted where there is none in siSwati.

1.10.2 The parliamentary system

Swaziland is rich in cultural heritage and maintains community-oriented traditional values and strengths which are underpinned by tribal and lingual homogeneity. The Swazi society is dualistic; traditional and conventional values, practices and institutions coexist. Reporting to the King are two well-established structures: a conventional tripartite system made up of the Executive, Legislature (bicameral) and Judiciary (Roman-Dutch law); and a parallel traditional system of government hinged on Swazi customary practices and law.

At independence, Swaziland inherited the Westminster constitution, which was later repealed in 1973, mainly to suite the particular circumstances of Swazis. In 1978, the tinkhundla

system, designed along the lines of local constituencies based on chieftaincies, was established, under which parliament was revived, with an electoral college used to elect members of parliament. The term tinkhundla (singular inkhundla) derives from the area outside of the cattle kraal where men would customarily gather to talk. Elections under the electoral college system were held in 1978, 1983 and 1987.

In 1992, largely because of rising demand for fuller participation in the country's socio-political development, His Majesty King Mswati III established a commission to review the political system of the day. Following consultations with the various tinkhundla constituencies and signalling the beginning of national transformation, the Political Review Commission made a number of recommendations, including the dissolution of the electoral college; the need for a written constitution; and the need to elect members of parliament directly from the tinkhundla. In 1993, elections were held through a three-stage process: preliminary nomination in chiefdoms, followed by primary and secondary elections at the tinkhundla level.

The House of Assembly is constituted by 55 elected members and 10 royal appointees, whilst the Senate consists of 20 appointees and 10 others selected by the House of Assembly. The Head of Government, the Prime Minister, is appointed by the King. In turn, the Prime Minister appoints Cabinet members, subject to approval by the King.

The headman of each inkhundla is assisted by an inner committee or bucopho. The functions of each inkhundla were to act as an advisory outfit to the chiefs on one hand and to the Swazi National Council (libandla) on the other. The Swazi National Council (SNC) at first comprised "the King, the Queen Mother and all adult male Swazis", but the King's Proclamation No. 1 of 1981 changed its composition to "the King, the Queen Mother Princes and Princesses, Chiefs and all adult citizens" (Constitutional Review Commission, 1997:33). However, the SNC as currently constituted as the King's advisory body, no longer includes all adult Swazis; Decree No. 1 of 1996 restricts its membership to the names of those specifically identified in the Decree.

At the local government level, chiefdoms grouped into 55 tinkhundla administrative centres and ruled by about 200 chiefs, exercise authority on behalf of the King, largely through the apportionment and control of SNL. For administrative purposes, the tinkhundla are organized into four districts; i.e. Hhohho, Lubombo, Manzini and Shiselweni districts, each governed by a Regional Administrator, a political appointee. Further, there exist town councils and town boards, serving as municipal governments responsible for urban development.

When Swaziland attained independence in 1968 it adopted a constitution based on the Westminster parliamentary model, which clearly spelt out the separation of powers between the three arms of government: judiciary, executive and legislature. However, in 1973 King Sobhuza II repealed the 1968 constitution and all the three arms of government were vested in His Majesty. In 1978 King Sobhuza II decreed the establishment of a new tinkhundla⁵-based electoral system for the bicameral parliament. The Tinkhundla system is an indirect non-party electoral system whereby ... Legislative and executive powers became vested in the King-in-Council but the judiciary remained independent.

This was revoked and replaced with a system designed to facilitate the practise of both western and traditional styles of government. This structure incorporates the system known as Tinkhundla and provides for the people to elect candidates to be their parliamentary representatives for specific constituencies.

Power is vested in the King who appoints the Prime Minister and consults with the Cabinet which is headed by the Prime Minister and the bicameral parliament. These aspects comprise the western style of government.

⁵ According to this system, the country is divided into 55 electoral districts, each of which elects two representatives to form an electoral college, which then elects the members of the House of Assembly. The candidates up for election do not represent a particular party, but stand as individuals.

The Swazi National Council, known in the vernacular as Libandla, is the traditional side of government. This is headed by the King and Queen Mother in accordance with the dual monarchy approach, with Queen Mother's main role being to uphold the traditional and cultural elements. All Swazi adult males are entitled to offer advice and council on matters pertaining to traditional law and custom.

Currently, Swaziland has a bicameral Parliament made up of the House of Assembly and Senate. The Upper House (Senate) comprises 30 Senators of whom 20 are appointed by the King and 10 elected from members of the public by the Lower House. The Upper House also includes the President of the senate and his Deputy including the President of the Senate and his Deputy. The Lower House (House of Assembly) is made up of the Speaker, Deputy Speaker and 53 other members: 35 members of this house are elected and 10 appointed by the King.

The Senate has 30 members, 10 of who are elected by the House of Assembly and 20 appointed by the King.

The country maintains formal registration of voters aged 18 years and above, and elections are conducted every five years.

There are local councils administering the affairs of each Inkhundla.

Elected City Councils and Town Boards, on the other hand, govern the cities and towns.

1.10.3 The traditional system

The traditional system alongside and intertwined with the conventional modern form of government is a similarly well established Tinkhundla structure of governance reporting directly to the Ingwenyama. The Tinkhundla system is a vehicle for the implementation of government activities. It is a democratic dispensation for the Swazis to run their affairs in their own communities.

1.10.4 The monarchy

Swaziland's monarchy is dual in nature with the King ruling together with Her Majesty - the Queen Mother (Indlovukati). The King, as the head of government and the Ingwenyama, is advised by the Cabinet, the Swazi National Council (SNC) made up of all Swazi male adults and the Swazi National Council Standing Committee (SNCSC) that includes both men and women. The King-in-Council appoints the Prime Minister and the latter in turn proposes a Cabinet to the King, who then appoints them to the various ministerial portfolios.

1.11 Economic overview

Swaziland is classified as a lower middle income country with a per capita gross national product of US\$1,360 and a human development index of 0.577⁶. The economy is small, open and export-oriented and is mainly agro-based. The economy is reasonably well diversified although vulnerable to exogenous external economic shocks and influence. Economic performance is highly dependent on developments in the world economy. The geographic location of the country also reinforces its vulnerability to factors outside its control, in particular those emanating from the Republic of South Africa.

Swaziland is in both the South African Customs Union (SACU) and the Common Monetary Area (CMA) with South Africa. As a result, the Swazi economy is highly integrated into that of the Republic of South Africa. Over 85% of the country's imports come from or through South Africa and nearly 70% of Swaziland's exports go to South Africa⁷. Being in the CMA and SACU with a partner who has a much bigger economy seriously curtails the ability of the

⁶ *Swaziland Human Development Report 2002*

⁷ *Swaziland Annual Statistical Bulletin, 1999. Central Statistics Office*

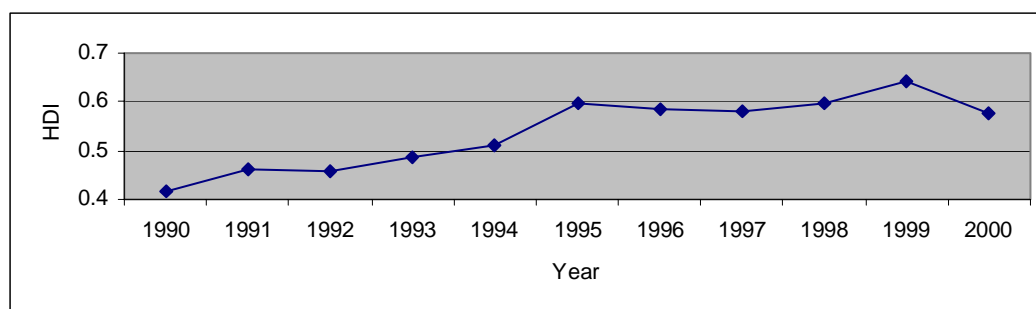
Swazi authorities to ensure a monetary and fiscal policy that is strictly in line with national interest.

The country's impressive economic growth of the 1980s led to an upsurge in domestic and external reserves as well as significant investment in social and economic infrastructure. However this favourable trend also translated into a decline in fiscal discipline. The favourable economic conditions of the 1990s have since changed. Since the early 1990s, Swaziland has experienced a consistently deteriorating fiscal situation, with GDP growth declining from a mean of 7% in the 1980s to only 3% in the 1990s. Latest figures from the Swaziland Central Bank (for 2001) have GDP declining further to 1.5% from 2.2% and 3.7% in 2000 and 1999 respectively. With an estimated population growth rate of 2.7%, this decline represents a major deterioration in living standards for the Swazi people. The serious socio-economic challenge inherent in the current setting is reinforced by the unclear dynamics of the regional environment; uncertain revenue prospects vis-a-vis rising public expenditure; unsustainable population growth and increasing unemployment; and the impact of the worsening HIV/AIDS situation.

As one of the responses to the foregoing challenges, Swaziland has developed a National Development Strategy, in which the country's long-term socio-economic development vision is embodied. The emerging framework - based on the National Long-Term Perspective Study (NLTPS) approach supported by the UNDP - broadly defines the strategic direction for all sectors and sets the context within which three-year national development plans will be designed. To complement the National Development Strategy vision, the Government of Swaziland also launched a short-to-medium term implementation programme – the Economic and Social Reform Agenda (ESRA) in 1997, to kick-start the economy by creating an enabling environment in which the private sector will be the driving force in increasing both economic growth and individual living standards. This programme is in its third phase, now known as the Millennium Action programme (MAP).

Swaziland's current position is 125 (from the 2002 HDI Report) putting it in the 71st position out of 83 countries in this group, i.e. in the lowest 25% of that group.

Figure 3 - Swaziland Human Development Index 1990-2000⁸



Within the context of SADC, Swaziland is ranked 4th out of the 14 states.

Poverty reduction is the overall objective of all government development strategies with the NDS dedicating one of its eight themes to Human and Social Development.

Approximately 43% of the rural population are classified as poor (Table 1-7) and according to a World Bank report (Jan 2000) the depth and severity of poverty are worse in rural Swaziland - which is where the majority of Swazis live.

Table 1-7 - Poverty Indices⁹

⁸ Compiled from historical Human Development Reports from UNDP

⁹ Compiled from the UNDP Common Country Assessment, 2000

Region	Population Share (%)	Core Poor		Poor		
		Share of Core Poor (%)	Prevalence (%)	Prevalence (%)	Depth (gap)	Severity
Urban	21.0	18.1	17.2	29.7	12.4	6.8
Rural	79.0	81.9	20.8	42.8	15.5	8.0
National	100	100	20.0	40.0	15.1	7.8

The onset of HIV/AIDS has compounded the poverty concerns that Swaziland now faces. One dimension of the AIDS pandemic is the increased number of orphans and uncared-for elderly since most of the affected age group is the economically productive. AIDS does not only have a devastating impact on health, but it also undermines other human development gains and the economic strength of the household, leading to poverty.

1.12 National vision for sustainable development

The current mission statement is “*to provide a climate and infrastructure that will progressively maximise the quality and security of life of the people of Swaziland and make the best use of the country’s natural and human resources*”.

In the late 1980s the Government of Swaziland became concerned about the deterioration of the country’s state of the environment and the associated economic loss of natural resources and the overall threat to the development of the country. Changing weather patterns and severe droughts exacerbated the threat and increased fear among the public. These problems helped to emphasise the need for urgent action to achieve sustainable management of our natural resources if we are to achieve sustainable development

In response to the concerns of the 1980s and the outcomes of the Rio Summit, Government initiated a number of institutional arrangements and formulated policies, strategies and action plans that are aimed at achieving sustainable development. In 1992, Swaziland created the Swaziland Environment Authority (SEA), a statutory body established by an Act of Parliament. Its main responsibility is to coordinate all environmental matters, including promoting the development of policies, legislation and enforcement mechanisms for sound environmental management, and regulate all development planning and implementation.

In the mid nineties Government, through the Ministry of Economic Planning and Development (MEPD), started formulating a National Development Strategy which was completed in 1998. Stakeholder consultation and participation was the main strategy adopted for the development of the NDS. The NDS outlines the country’s vision and necessary actions for achieving the vision. The vision is that **“By the year 2022, the Kingdom of Swaziland will be in the top 10% of the medium human development group of countries founded on sustainable economic development, social justice and political stability”**.

To achieve this vision, strategies were laid out in seven main areas: economic management, economic empowerment, human resource development, agricultural development, industrialisation, research, and environmental management. There are eight categories for sectoral strategies to those areas - Public Sector Management, Macroeconomic Management, Physical Infrastructure, Agriculture, Land and Rural Development, Economic Services, Education and Training, Population, Health and Social Welfare, and Gender and Disadvantaged Groups.

What this vision states is that twenty-five years from 1997, Swaziland will have considerably improved its world standing in terms of measurable indices of human development. In its quest for the improved standing, it will rely on sustainable economic development, social justice and political stability.

The initiation of ESRA/MAP was demonstration of the country’s realisation of and commitment to the need for improving the country’s economic and social development.

The country has prepared a Poverty Reduction Strategy and Action Plan which has a high priority in the NDS and aims at reducing poverty by half by 2015. This is considered a vital part of operationalising the NDS.

The NDS recommends a number of key interventions required improving the living standards of the poor, namely:

- 1) smallholder agriculture development, through land tenure reform, sustainable cattle management, and the introduction of small-scale savings and credit mechanisms in rural areas;
- 2) human resource development, through improved primary, secondary and vocational education, expanding early childhood development programs for poor communities and emphasising a primary and preventive health service;
- 3) insurance against major risks, through a cross-sectoral response to the AIDS crisis, and drought preparedness;
- 4) institutional strengthening, to increase the poverty impact of policies, through poverty planning at central level, local level co-ordination and community participation and the establishment and use of a poverty monitoring and analysis system.

Legal reform and constitutional development initiatives have come about as a result of government's realisation that the management of the economy and the political environment were not maximizing resource use and that decision-making has not been sufficiently broad based or participatory. The Constitutional Review Commission that was finalised in 2001, was mainly initiated to set the scene for constitution building. Among projects undertaken to support the evolution of programmes supporting good governance has been the Capacity Strengthening for Good Governance, whose objective is the "establishment of an environment of peace, stability and sustainable economic and human development.

1.12.1 The National Development Plan

Government's National Development Plan is elaborated in annual 3 year rolling plans, which details capital expenditure projects that are prepared in parallel with the budget preparation process. The Development Plan presents policies, programmes and projects on a sectoral basis, grouping activities into categories that reflect the nature of their contribution to the economy rather than the administrative structure adopted by Government.

The Development Plan sets out the Government's public investment programme and provides an operational medium term perspective of the public sectors development efforts within the overall macro-economic and particularly fiscal parameters that are projected for the next few years.

Over the plan period 1999/00 - 2001/02 the sectors with the expected largest proportions of planned capital expenditure, are Agriculture, Forestry and Fisheries (32.2%), Transport and Communication (24.2%), Public Services (15.2%), Housing and Community Services (11.2%) Water Resource Management (6.0%), Public Order and Safety (4.1%) and Education (2.6%).

2 REVIEW OF ACHIEVEMENTS MADE UNDER AGENDA 21

The 40 chapters of the Agenda 21, the international plan of action to sustainable development, is probably the most important of Rio's various achievements. It outlines key policies for achieving sustainable development that meets the needs of the poor and recognises the limits of development to meet global needs. "Needs" is interpreted not solely in terms of economic interests but also to be those of a fully functional, harmonious, global system that incorporates both people and ecosystems. Agenda 21 has become the blueprint for sustainability and forms the basis for sustainable development strategies. It attempts to define a balance between production, consumption, population, development and the Earth's life-supporting capacity. Its recommendations range from new ways to educate, to new ways to care for natural resources and new ways to participate in shaping a sustainable economy. It addresses poverty, excessive consumption, health and education, cities and Agriculture; food and natural resource management and several more subjects. The overall objective of Agenda 21 was very ambitious for it was nothing less than designing a safe and just world with people in the South and North alike would live an equitable life within Earth's capacities.

What has made Agenda 21 so critical is that it marks an evolution in environmental thinking that saw the final entwining of man and environment into one agenda and it is this evolved thinking that is the foundation of WSSD 2002 - both in assessing the effectiveness of the implementation of Agenda 21 from 1992 to 2002 and in giving it new teeth through the declarations that will emerge from the summit in South Africa. The issues covered in Agenda 21 are in effect what the World Summit for Sustainable Development is all about.

Agenda 21 explains that population, consumption and technology are the primary driving forces of environmental change. It lays out what needs to be done to reduce wasteful and inefficient consumption patterns in some parts of the world while encouraging increased but sustainable development in others. Agenda 21 recognises that poverty is closely linked to access to resources poor people need to live sustainably. Agenda 21 also called for more support from the developed countries to the developing countries - by means of increased funding but also through the transfer of information and skills.

Developed countries have a greater role in cleaning up the environment than poor nations, who produce relatively less pollution. Agenda 21 calls on governments to adopt national strategies for sustainable development. These should be developed with wide participation, including non-government organisations and the public. This call for broad participation was accomplished with the major group concept of the UN.

Agenda 21 had a significant impact on local community activities regarding sustainable development. Thousands of Local Agenda 21 initiatives emerged after UNCED to develop local sustainability plans by bringing different stakeholders together. The "Spirit of Rio" thus made its way into the heads of individuals on the local level.

2.1 Social and Economic Dimensions

This Section examines the adverse social and economic issues and outcomes of unsustainable development and resource use. Economic policies of individual countries and international economic relations both have great relevance to sustainable development.

Whilst the country has made considerable measures towards achieving social and economic dimensions of sustainable development, there are areas where problems have been experienced, making it difficult to achieve the desired goals.

2.1.1 International cooperation to accelerate sustainable development in developing countries and related domestic policies

Advocates for a partnership of the world's nations is essential for an efficient and equitable global economy that can help all countries to achieve sustainable development.

2.1.1.1 Achievements

For Swaziland, international cooperation is essential for complementing national efforts directed towards the implementation of development programmes aimed at reducing poverty and promoting sustainable development.

Since agricultural trade is the corner stone of Swaziland's overall economic revival, the country maintains close trading ties with the European Union for sugar and the United States for both sugar and textile products. Strong regional trade is increasingly becoming more important with increasing trade becoming apparent with South Africa, Mozambique, Malawi and Zimbabwe.

To facilitate greater cooperation, a number of multilateral agreements have been signed/ratified in order to enhance partnership with the international community for sustainable development.

Active membership of international organisations is a priority of government to ensure its developmental interests are catered for. Important international, regional and sub regional structures to which Swaziland is a party include:

- (a) The newly established African Union
- (b) The Southern African Development Community (SADC)
- (c) The Common Market for Eastern and Southern Africa (COMESA)
- (d) The World Trade Organisation (WTO)
- (e) The African, Caribbean, Pacific Group of States (ACP)
- (f) The Southern African Customs Union (SACU)

Multilateral agreements are also import to the country to ensure a level playing field that would support sustainable development. Important agreements to which Swaziland is a signatory include:

- (a) Multilateral Environmental and Social Agreements (Desertification, Climatic Change, Montreal Protocol, Biodiversity and Elimination of Discrimination against Women)
- (b) Multilateral trade agreements (the Cotonou Agreement (EU/ACP), the US General System of Preference (US), the SADC Trade Protocol (regional))

The total external assistance to Swaziland by bilateral and multilateral donors currently stands at below 5% of the GDP and is decreasing¹⁰. Reasons for this decrease are:

- a shift of interests to other countries in the region (such as post-war Mozambique and post-apartheid South Africa);
- low government capacity and slow implementation rate of development programmes;
- divergent ideas on governance issues and reform; and
- conditionalities built into aid packages, which are sometimes considered too stringent.

Government has recently designed an Aid Policy Statement on External Assistance to ensure that externally funded projects and programmes are consistent with national and sectoral priorities and have a maximum impact on national development.

Swaziland is an active member of major regional groupings dealing with trade and economic cooperation: the Southern African Development Community; the Southern African Customs Union; Common Monetary Area; the Cotonou Agreement (post-Lomé Agreement); the Common Market for Eastern and Southern Africa; the General System of Preference.

Swaziland is a signatory of the SADC Trade Protocol aimed at liberalising intra-regional trade in goods and services within the region on the basis of fair, mutually equitable and

¹⁰ EU Country Strategy Paper and National Indicative Programme for the period 2001 - 2007

beneficial trade arrangements, complemented by Protocols in other areas. It aims to ensure efficient production within SADC, reflecting the current and dynamic comparative advantages of its members. The Protocol also contributes towards the improvement of the climate for domestic, cross-border and foreign investment. It aims to enhance the economic development, diversification and industrialisation of the region and to ultimately establish a Free Trade Area in the SADC region.

An International Trade Department was established in the Ministry of Foreign Affairs and Trade to facilitate the development of an effective trade policy and to assist with negotiations. This is aimed at strengthening the country's ability to participate in the EU-SA Free Trade Agreement and other regional integration schemes.

2.1.1.2 Priorities for Future Action

Given Swaziland economic openness, the changing trading relationships at both the multilateral level and within the region could have a profound impact on future macro-economic stability and growth. It is thus essential that Swaziland is able to participate in and/or assess effectively the impact of negotiations of inter alia the Free Trade Area within SADC, the Customs Union and free Trade Area within COMESA, the EU-South Africa Trade and Development Agreement and further rounds of trade liberalisation under the auspices of the WTO.

There is need for a review of the sustainability of the implementation of the financial assistance, to determine, for example, the capacity for the country to continue with donor initiated development initiatives at the end of the external assistance, the prospects for the country to service the loans within the stipulated time period without being overburdened with external debt. The formulation of the External Aid Policy by the Ministry of Economic Planning and Development is a major step towards developing a strategy for channelling external aid and priority must be given to its implementation.

Government needs to promote a strong macro-economic framework to enable the country to withstand shocks.

- The Ministry of Finance is actively pursuing international institutions to provide financing denominated in Rands in order to reduce foreign exchange exposure
- The government is raising finance through the domestic market by issuing bonds
- The Ministry of Finance is currently formulating a debt policy and strategy in order to ensure that prudent measures are undertaken before debt is contracted
- Government has initiated a Fiscal Restructuring Project funded by the EU, which aims to diversify revenue and implement Mid-Term Expenditure Framework.
- Government can also control expenditure and implement public sector management program recommendations, which aim to optimise the size of the civil service
- Donors can assist by providing loans denominated in local currencies, which minimize foreign exchange exposure on interest payments and also grant resources for social problems such as HIV/AIDS.

2.1.2 Combating poverty

Advocates for strategies that combat poverty, both as a cause and effect of environmental degradation. These include sustainable levels of economic growth, employment growth, income generation and local community empowerment.

2.1.2.1 Achievements

Government has identified poverty alleviation as one of its main priorities for sustainable development. While this has been addressed indirectly and in somewhat a fragmented fashion

in the past, Swaziland has realized the need to formulate direct strategies which are to be prioritised in a coherent framework. Achievements have been made in the following areas:

2.1.2.1.1 Poverty Reduction Strategy and Action Plan

With the financial support from the World Bank and the Government of Taiwan, Government is currently formulating a National Poverty Alleviation Strategy which is due for completion in 2002/03. It is a three-pronged strategy: rapid acceleration of economic growth based on broad based participation, empowering the poor to generate own income, and equitable distribution of the benefits of growth through public spending. The initiation of the Poverty Reduction Strategy is an achievement for Swaziland because it sets the scene for more directed efforts towards poverty reduction in the country. The strategy is aimed at reducing the incidence of poverty by more than half from the current level of 66% to 30% by the year 2015.

A Poverty Reduction Task Force (PRTF), whose mandate is to coordinate all efforts aimed at poverty alleviation and to formalise a strategy, has been established.

2.1.2.1.2 Participatory approach to infrastructure development

To maximise the labour potential of the country, government has stressed the importance of labour intensive public works projects and the development of local firms through their participation in such projects. Though usually only providing temporary employment, the skills learnt are viewed as an important contribution to the overall skills base. Examples of recent public works projects include the upgrading of many of the country's roads to tar and the rehabilitation of gravel roads and the construction of the Maguga Dam.

2.1.2.1.3 Empowering the poor to generate a livelihood

The rapid economic growth in the past propelled Swaziland to a lower middle-income status without addressing issues of fair income distribution. Government has therefore tried to initiate measures for harnessing the income generation potential of the majority of the poor through direct investment in job creation and capacity building for income generation. A Small, Medium and Micro-scale Enterprises (SMME) Unit has been established within the Ministry of Enterprise and Employment to coordinate and accelerate development of the poor.

A substantial donor-funded programme of support for SMME development has commenced. The SMME development programme is to forge a link between small and emerging business entrepreneurs and the big businesses. It also provides business training for prospective and emerging entrepreneurs and strengthens credit institutions through the provision of credit facilities that are especially accessible to the poor who normally do not qualify for funding from the commercial lending institutions.

A number of development funds have also been established mainly for the purpose of accessing affordable credit for small-scale development schemes which are often initiated by Cooperatives and Associations. Such funds include the E5.5 million Inhlanyelo Fund, which to date has issued more than 1000 loans. There is also the Enterprise Fund which has issued loans amounting to E32 million and has maintained a 91% recovery rate. There is also the Regional Development Fund, which however, has had a slow start. It has available, E60 million for granting to communities in infrastructure development.

The Enterprise Trust Fund has made loans of E86 million and maintained an 89% repayment rate. The SMME unit has prepared a directory of enterprises in the sector and the database is being extended to record new start-ups.

2.1.2.1.4 Creating employment and decentralisation of industrial development

In an effort to combat rural poverty and curb rural-urban migration, Government is promoting investment in rural areas through the construction of factory shells and business centres in rural areas. Such initiatives are intended to provide employment and service opportunities to the local communities.

However, the success of this initiative depends to some extent upon further investment in related infrastructure in the rural areas to ensure that there is less risk of these initiatives failing to achieve their intended purpose due to factors such as foreign investors' preference for urban areas and availability of basic reliable services (telephones, water, waste disposal and accommodation).

There is therefore a great challenge for Government to formulate a comprehensive rural development strategy and a rural industrialisation policy to guide the development of these rural areas, so that the initiative does not ultimately affect the life of the rural people in a negative way. There may be need for international cooperation in this regard that would help provide funding and technical assistance for the sustainable development of the rural areas of Swaziland.

2.1.2.1.5 Tourism development

Another sector with scope for substantial job and wealth creation is tourism.

Progress to date has been relatively slow – with minimal new private investment and slow progress in commercialising Government-run activities. The recently established Swaziland Tourism Authority (2001) plans to provide support to improve tourism-focused community initiatives as well as global and regional marketing strategies to promote Swazi tourism.

At a regional level, Swaziland is part of the Lubombo Spatial Development Initiative (LSDI), which is a joint tourism development initiative between the republic of South Africa, Swaziland and Mozambique. The LSDI covers the southern Maputo province of Mozambique, the north-eastern parts of KwaZulu Natal and the eastern side of Swaziland. It considers that the area is an agro-tourism investment zone with “exceptional tourism potential and significant advantages for agricultural development”. Investor response to the LSDI has been disappointing despite the presentation of pre-packaged tourism projects.

2.1.2.1.6 Investment promotion

The main causes of poverty in the country include the rapid population growth (2.7% per annum), coupled with slow economic growth, increasing unemployment, especially among the rural poor, unequal income distribution, illiteracy and regional imbalances etc. In addition to the strategies that have been discussed above, the Swaziland Investment Promotion Unit (SIPA) was established in 1999 as a parastatal under the Ministry of Enterprise and Employment, whose main objective is to encourage and facilitate foreign investment into the country so as to reduce unemployment and improve the economic circumstances of the poor.

A total of 18 foreign companies in the manufacturing and textile industry have indicated their willingness to invest in the country in 2002 at a total investment package of E188 million. Diversification in the area of investment is expected in future years so as to reduce the associated risks.

2.1.2.1.7 Population Policy

Swaziland's population growth rate of about 2.7% is among the highest in the world. This has had a negative impact on the economic and environmental development of the country and has necessitated the development of a policy for population. A National Population Council (NPC) was established in 1998 utilising a US\$0.24 million grant from the United Nations Population Fund (UNFPA) which started working on the formulation of a population policy. The Council has produced a national agenda that includes sensitisation workshops aimed at awareness creation and the formulation of a Population Policy Implementation Action Plan. Sector committees were formed and mandated to write position papers reflecting the views of the organisations they represent, on population issues. A Population Unit, which will monitor the implementation of the policy, will be established within the Ministry of Economic Planning and Development, and Government has contributed about US\$0.226 million to operationalise the Population Policy.

The draft Population Policy addresses the rapid population growth in relation to a complex of related issues, including changing health conditions and care, worsening unemployment, increased consumption needs and gender equity. The main goal of the draft Policy is to improve the quality of life by influencing the demographic trends as well as respond to challenges such as HIV/AIDS. The draft Policy defines Policy Objectives, Policy Targets and Policy Strategies as the major elements of its Framework. It is envisaged that the implementation of the Policy shall involve a wide range of multi-sectoral activities at national, regional and community levels.

The environment is recognised as an important factor in population matters. The draft Policy notes with concern the increasing environmental degradation, with increased population pressure as one of its main underlying causes. The draft Policy recommends a review of cultural practices that have a negative influence on the environment. High incidence of poverty and malnutrition are related to high levels of food insecurity. Agriculture and forestry are recognised as important sectors with respect to income and employment. The draft Policy recommends intensification and diversification of production to improve food security and nutrition levels.

2.1.2.1.8 The Micro Projects Programme (MPP)

Micro-projects are community based, small-sized, self-help development projects which are implemented by a unit that was established under the Ministry of Economic Planning and Development with financial and technical support provided by the European Union. Community members must take the initiative, decide their priorities and be ready to make their own contribution. A Micro Projects Unit was established under the Ministry of Economic Planning and Development to coordinate activities. The Unit can grant up to 75% of the investment cost for suitable projects provided the operation and maintenance are the responsibility of the beneficiaries.

Since 1988 the Unit has assisted over 400 Micro Projects of various types. Micro Projects, which must have the potential to become self-sustaining, include the construction of simple irrigation schemes, clean water supply systems and sanitation, rural schools, health and community centres, small industries and markets, roads and footbridges, and promotion of small-scale business enterprises in general. The MPP has proved to be a valuable and well-respected development actor in Swaziland, providing an important interface with regional and local government and community groups and using NGOs as implementing partners.

2.1.3 Changing consumption patterns

This section examines global market imbalances in the patterns of consumption and production and advocates for more efficient and environmentally sustainable resource use.

2.1.3.1 Achievements

The task of changing the consumption patterns of individuals and industry in the country has been hampered by the perceived cost of doing so and the lack of financial incentives to do so.

The country's emphasis has been on interventions in the energy sector.

The consumption of natural resources, particularly fuelwood in rural areas, is viewed as unsustainable and environmentally and ecologically damaging. The collection of fuelwood, often by women and children, is also seen as an additional stress upon the domestic responsibilities of these communities. The identification and use of alternative fuel sources is a priority for this sector.

Some significant achievements made include:

2.1.3.1.1 The Energy Policy Formulation

A National Energy Policy is being developed through the Ministry of Natural Resources and Energy (MNRE) funded in part by DANCED. The main objectives of the policy are:

- to reduce unnecessary or wasteful consumption of energy;
- to promote where appropriate, the use of sustainable sources of energy such as solar power.

Strategies adopted include:

- priority shall be given to the development of local energy;
- electrification of rural areas shall be encouraged in order to reduce the dependency of local communities on wood, coal, and dung as energy sources;
- government will investigate the prospects of developing appropriate infrastructure for delivering energy from sustainable sources.

2.1.3.1.2 International Cooperation

Swaziland signed the Harare Declaration on Solar Energy and Sustainable Development, a result of the World Solar Summit of 1996. Pilot projects on the application of this technology in rural areas is on-going.

2.1.3.1.3 Renewable Energy Development

Renewable energy is a key to the sustainable use of energy in the country. Swaziland has several renewable energy resources including biomass, solar energy, and hydro energy. A Renewable Energy Action Plan was developed by MNRE in 1997, indicating a long-term programme for the development of renewable energy. A number of activities in the plan have already been undertaken but there are still activities requiring attention, particularly in the area of biomass energy and quality assurance of renewable energy technologies.

A Renewable Energy Association of Swaziland (REASWA) was established in 1998 under an EU programme to develop a regional renewable energy information network (Southern African Renewable Energy Information Network). Since then, it has operated through an executive committee comprising of persons from industry, academia and Government. It has carried out various activities during this time, in particular studies and workshops on the issue of gender and energy.

Biomass, especially wood fuel, constitutes about 90% of the total energy consumed in rural areas. Wood fuel supply, mainly through indigenous forests, is declining due to the unsustainable management of the resource. Many people in rural areas are now facing decreased wood fuel availability across the country. Government has also been involved in a number of initiatives to promote efficient wood stoves primarily through the private sector and collaboration with the Ministry of Agriculture and Co-operatives.

A pilot programme was initiated to look at the small-scale manufacture of fuel briquettes made from wood waste and sawdust. Swaziland's wind and solar regime is not well documented and limited baseline data is available. However, a long-term resource measurement programme has been established. Five sets of measuring equipment were installed at National Meteorological Services stations and other sites around the country in early 2001, to ascertain the wind and solar resource status.

From 1992 to 1995, the MNRE established a solar pilot project mainly to electrify clinics and schools. Several street lighting, solar water heating and vaccine refrigeration systems were also installed through the project. The project also installed four solar water-pumping schemes in different regions of the country. The project results indicated that there is sufficient solar irradiation in many areas throughout the country.

However, there are certain institutional and technical barriers that need to be overcome in future projects to ensure improved project sustainability and performance.

Other initiatives include the World Bank sponsored Solar Market Development Project in 1998 and the UNESCO funded Mphaphati Solar Village Project in 1999.

Hydro power plants with a total capacity of 40.5 MW are being operated by SEB in various sites in the country. However, the potential for mini or micro hydro plants has not been fully

exploited. A resource assessment of the potential for application of these small plants has been completed and indicates priority areas where a more detailed feasibility should be focused.

The potential for other renewable energy resources such as geothermal and “biofuel” crops (except ethanol from molasses) has not been investigated.

2.1.3.1.4 Clean Development Mechanism (CDM)

In 2002 Swaziland signed the Kyoto Protocol. The Kyoto Protocol specified legally binding commitments by most industrialized countries to reduce their collective greenhouse gas (GHG) emissions by at least 5 percent compared to 1990 levels by the period 2008-2012. With the goal of reaching these targets at the lowest possible cost for countries that committed to reductions, the Protocol created two flexibility mechanisms. Firstly through the reduction of in-country greenhouse gases, by promoting clean energy technologies and reducing energy use. Secondly, reduction targets can be achieved through the purchase of carbon credits, i.e. Certified Carbon Reductions, as a result of clean technology projects in developing countries. One such programme is the Clean Development Mechanism (CDM).

The CDM offers major benefits in project development for many countries like Swaziland. Projects that may not have been viable may start to become more attractive with additional income streams such as the sale of carbon credits. In Swaziland for example, there has been a lot of interest in projects such as the utilisation of sugar waste (bagasse) and wood waste for power generation. There is also potential in the country for extended hydro power generation. Once the mechanism has been developed further, there will be greater opportunities for small-scale projects, e.g. solar PV etc.

MNRE has been closely involved with developments and negotiations with the World Bank’s Prototype Carbon Fund in establishing demonstration CDM projects in the country and are presently co-ordinating an EU Project in the country to develop capacity building in the private sector on CDM in Southern Africa.

MNRE are also in discussions with the SEA to establish a CDM Secretariat under the proposed Climate Change Committee.

2.1.4 Demographic dynamics and sustainability

Focuses on population growth issues. It advocates for strategies to stabilise population and increase local health and educational standards.

2.1.4.1 Achievements

The major step towards solving the problem of high population growth rate, which is coupled with slow economic growth, has been the formulation of a Population Policy which is hoped to be in place by December 2002. The policy has received Cabinet approval.

The formulation of the Population Policy adopted a participatory approach and sector committees were formed and mandated to write position papers reflecting the views of the organisations they represent on population issues.

A Population Unit has been established within the Ministry of Economic Planning and Development and will monitor the implementation of the policy. The Population Policy Implementation Plan is still to be finalised.

NGOs, in particular the Family Life Association of Swaziland (FLAS), have also been actively involved in implementing measures to control population growth through the expansion and delivery of family planning services, counselling, education and awareness creation. Such efforts have particularly been targeting the youth. by introducing a community-based distribution system.

2.1.4.2 Priorities and future options

The implementation of a Population Policy will require substantial amounts of both financial and human resources – neither of which is readily accessible without international support.

The impact of HIV/AIDS on the country's population has been dramatic and needs to be addressed urgently. As much as appropriate strategies need to be adopted at national level to address this problem, the success of such strategies are highly dependant on international cooperation and support. The overall impact of the HIV/AIDS pandemic is to downgrade population growth forecasts.

2.1.5 Protecting and promoting human health conditions

Addresses primary world health issues, such as adequate nutrition, primary health care, water quality, urban health and environmental pollution.

The Ministry of Health and Social Welfare (MOHSW) provides, promotes and co-ordinates the provision of health and social welfare activities in the country.

The ministry is committed to the World Health Organization goal of “Health For All beyond the Year 2000”. In an effort to achieve this goal, the Ministry initiated a programme for the development of a Comprehensive Primary Health Care System, whose main objective is “to improve the health status of the Swazi people by providing preventative, promotive, rehabilitative and curative health services which are relevant and accessible to all”.

The following are the levels of health care delivery in the country;

- Tertiary/National referral hospital
- Regional hospitals
- Health centres
- Public health units
- Clinics
- Outreach sites

The 1999-2000 Statistics Report indicates that the major causes of consultations in the Out Patient Departments (OPD) are due to poor environmental sanitation in and around human settlements. The diseases are mainly diarrhoeal in nature, e.g. typhoid, cholera, hepatitis, etc. In 1999 to 2000 respiratory diseases, skin disorders, diarrhoeal diseases ranked number one, two, and three respectively.

The 1999-2000 Statistics Report also indicate that the major causes of inpatient (admissions) are malaria, TB and other infectious diseases. Swaziland is experiencing an epidemiological transition whereby non-communicable diseases play an important role in both mortality and morbidity.

There has been an increase in the disease burden over the past years. A study on hospital admissions carried out in 1996 revealed that more than 50% of all admissions were due to HIV/AIDS related illnesses. The impacts of the HIV/AIDS are; overcrowding in the health facilities, increased demand for services, increased costs of home based care and increased costs of treatment of opportunistic infections.

Like in other developing countries, mental health disorders have been steadily increasing. This is due to stressful conditions as well as the effects of the pandemic.

Like other sections, the health sector is already experiencing the effects of pandemic as it relates to loss/decreased productivity, absenteeism and loss of skilled manpower.

2.1.5.1 Achievements

The main achievements have been:

2.1.5.1.1 Strengthening of primary health care strategy

The country is promoting community participation in the provision of health facilities and care, co-ordinating the efforts by private sector and church organisations to provide health facilities and care, as well as incorporating the traditional health care with modern methods. Since the introduction of the primary health care strategy, the provision of preventative and promotive services has received much attention and is strongly encouraged in rural areas. In March 2002, the Ministry of Health and Social Welfare introduced free medical care.

In an effort to improve the provision of health services to all Swazis, the Government is improving the accessibility of the nation to health services by rehabilitating the existing health facilities and building new hospitals and clinics. Plans are under way to build a TB hospital in Manzini and a regional referral hospital in the Lubombo region. Government has also introduced a home-based care programme supported by Bristol Myers Squibb. An intensive training programme of Nurses, Rural Health Motivators (RHMs) and Community leaders on home-based care and HIV/AIDS risk reduction has been undertaken in all the four regions of the country.

2.1.5.1.2 Preventative health services

Preventative Services are designed to prevent disease and illness before they occur thus reducing the need for curative services. To achieve the preventative strategy the MOHSW has devised a number of programmes which are now being implemented through the participation of well-trained Rural Health Motivators. The Rural Health Motivators are community based health care providers and there is one per 25 to 30 households.

Preventative health programmes consist of the following:

- Environmental Health
- Expanded Programme of Immunization (EPI)
- Integrated Management of Childhood Infections (IMCI)
- Acute Respiratory Infection (ARI) Control
- Reproductive Health
- Nutrition and Growth Monitoring
- HIV/AIDS Prevention and Control
- Other Public Health Programmes dealing with both Communicable diseases and non-communicable diseases.

However, despite the two-pronged approach to curative and preventative services, the incidence of disease is still disturbing. The maternal mortality rate is still high (i.e. 100 – 110/100,000 live births). The MOHSW initiated a successful malaria control programme which is based on a rigorous indoor residual spraying programme, active case detection, passive case detection as well as aggressive case management.

Since the introduction of the EPI, Swaziland achieved remarkable progress in the reduction of immunizable diseases. The country is involved in the elimination of poliomyelitis and eradication of tetanus. Strategies used include the regular nationwide campaigns, National Immunization Days and effective surveillance system..

In collaboration with the World Health Organization (WHO), MOHSW established the Swaziland National Aids/STD Program (SNAP) and drafted an emergency plan of action, which resulted in the formation of a number of advisory bodies and the development of new initiatives. The country has now declared HIV/AIDS a national disaster. Government, in collaboration with relevant stakeholders, has undertaken a number of initiatives to combat HIV/AIDS. These include education on HIV/AIDS in the workplace, communities, schools and general public, increased production and distribution of brochures on HIV/AIDS and increased voluntary counselling and testing centres.

Awareness raising lessons on HIV/AIDS are covered under the Guidance and Counselling programme in about 50% of post primary schools. Life skill education, HIV/AIDS and reproductive health is being piloted in 21 schools. A national strategic plan to fight the epidemic more effectively has been developed. A National Emergency Response Committee on HIV/AIDS (NERCHA) to implement the strategic plan has been appointed recently. As part of the accelerated access to care Initiative, the MOSW with its Partners is currently implementing various initiatives, e.g.

- The WHO-Italian Initiative on blood safety and establishment of model Voluntary Counselling and Testing (VCT) centres.
- The EU project on Home Based Care, Sexually Transmitted Infections (STI) management and strengthening VCT.

2.1.5.1.3 Environmental health promotion

The ministry through its Environmental Health Department addresses several environmental health issues including;

- Water Supply and Sanitation
- Environmental Health Protection/ management
- Control of Communicable diseases
- Hygiene Education and Health Promotion
- Food safety and Meat Hygiene
- Occupational Hygiene and Safety
- Control of household pests and other vermin
- Port Health Activities (airport and boarder posts)
- Law enforcement etc

An Environmental Health Policy has been formulated and it is awaiting Cabinet's approval.

A draft Environmental Health Strategic Plan of Action has been formulated. Consultation with the relevant stakeholders will be undertaken during the year 2002.

In the year 2000 an estimated 57% of the Swazi population had access to safe water supply and an estimated 68% had access to proper excreta disposal.

The Environmental Health Department of the Ministry together with the Swaziland Environment Authority have embarked on a health care risk waste disposal system that is meant to ensure the proper collection storage, treatment and disposal of health care risk waste at all levels of the health care delivery system in the country.

The MOHSW is involved in the implementation of the National Solid Waste Management Strategy to ensure that health issues are adequately addressed within the overall strategy.

2.1.5.1.4 Human resource development

Health institutions were established by the MOHSW for the training of health personnel such as nurses, environmental health officers. These programmes offer diploma and degree courses. Continued Education is ongoing for all health staff and the MOHSW in conjunction with other development partners has been able to embark on a staff development programme, targeting some of the most critical areas.

2.1.5.1.5 Inter-sectoral cooperation

A number of governmental, private institutions, NGOs and CBOs have been mobilized into the primary health care principles and the same structure are involved in the fight against HIV/AIDS together with the MOHSW.

NGOs active in the fight against HIV/AIDS include the School HIV/AIDS Partnership (SHAPE), Baphalali Swaziland Red Cross, Save the Children Fund, the Aids Information and Support Centre, Salvation Army, FLAS, Women Resource Centre, Traditional Healers Organization, the Roman Catholic Church, Federation of Swaziland Employers' Business Coalition Against HIV/AIDS (Private Sector Initiative) and AMICAALL (local government's initiative).

Government efforts and various groups working to mitigate the impact of HIV/AIDS have been supported by donor agencies. They include the UN agencies, such as the World Health Organization (WHO), the UNDP, and the UNFPA; and bilateral agencies such as the European Union (EU).

2.1.5.1.6 Monitoring and evaluation.

A Health Information System (HIS) and surveillance systems are in place to monitor and evaluate health indicators.

2.1.5.2 *Priorities and future options*

The major priorities faced by Swaziland include:

- Expanding the national response to the HIV/AIDS epidemic by strengthening the multi-sectoral approach and promoting HIV related surveillance activities.
- Providing comprehensive health care and social support for people living with HIV/AIDS and their families.
- Safeguarding the human rights of people living with HIV/AIDS.
- Ensuring a sustained political commitment at all levels to raise the health budget to at least 15% of GNP as the Abuja/WHO Resolutions.

Another priority for the Government of Swaziland is to secure the necessary financial resources and international cooperation to combat HIV and take care of HIV/AIDS orphans. It is estimated that the number of HIV/AIDS orphans would increase from the present level of 40,000 to more than 100,000 by the end of the decade, and that taking care of the orphans would cost an average of 1% of GDP per year. The largest single cost element is hospital care, which is estimated at an average of about 4% of GDP per year is estimated during 2000-2015. These projections point to the need for developing alternative programs for handling Aids and terminal care.

Across the whole country, rural water supply and sanitation need to be improved, building on the government programme that was initiated in 1983. Only 63% of the rural population use pit latrines and about 40% of the rural population have access to potable water. This scenario calls for the strengthening of primary health care and education in rural areas, as well as encouraging the community and non-governmental organisations to fund rural water supply and sanitation programmes.

2.1.6 Promoting sustainable human settlement development

This section examines deteriorating urban environments and proposes integrated planning and environmental management systems, sustainable land use and energy efficiency to meet the challenges of human settlement development.

2.1.6.1 *Achievements*

The Ministry of Housing and Urban Development is responsible for the coordination and facilitation of urban development and housing throughout the country. The main achievements made in the area of sustainable human settlements development include:

2.1.6.1.1 Legislative developments

Sectional Titles Act – This act is awaiting enactment by Parliament. The purpose of this Act is to allow a building or buildings (both residential and commercial), and the land, upon

which they are situated, to be subdivided into single and common sections. This will enhance the affordability of ownership of the subdivided units.

Physical Planning Policy – This policy has already been approved by Parliament. The policy aims to introduce a planning system that will be efficient, effective and simple in conception and operation, to facilitate much needed development and to strike the right balance between development and the interests of the public. It suggests ways in which planning legislation and institutions should be consolidated, and offers various processes and methodologies to address the current dichotomy between rural and urban, and between national and local planning processes.

Physical Planning and Development Control Bill – This bill is currently under preparation. It consolidates the laws relating to land development, planning and human settlements and establishes a comprehensive mechanism for development control at national, regional and local levels. Through the establishment of the National Physical Planning Authority it brings together all the role players in matters of physical development.

The Urban Government Policy, 1996 - The Policy sets out definitions, basic functions, services and other important management aspects of the urban areas. The Policy indicates that a strategic planning process will be implemented to guide infrastructure and community development. Dynamic structure plans will involve the active participation of citizens, and accommodate their needs, e.g. through advisory boards on parks and recreation.

The draft Peri-urban Growth Policy, 1997 – The most important aspect of this draft policy is the establishment of spatial plans based upon recognised principles of sustainable development.

2.1.6.1.2 Formulation of National Housing Policy

Swaziland approved a National Housing Policy in 2001. The policy vision, objectives and principles are drawn from HABITAT II. The vision underlying the recommended housing policy is that 'all Swazi households should have access to affordable shelter and services'.

The housing policy objectives are to:

- Improve access to land with secure tenure for those households seeking to build housing.
- Support the development of a land, housing and rental market through facilitating access to finance and rationalising inappropriate building and planning processes and regulations.
- Identify and safeguard the rights of both landlords and tenants in the rental market.
- Ensure that services are delivered in a manner that is financially sustainable for the service provider and affordable to the household.
- Use construction methods and local building materials in order to reduce the cost of housing and promote employment creation.
- Use formal and informal economic activities on the plot and in the vicinity to improve household incomes and reduce affordability constraints.

2.1.6.1.3 Implementation of the Urban Development Project

The Ministry of Housing and Urban Development has embarked upon the Urban Development Project (UDP).

The UDP is an urban development programme aimed at increasing urban management efficiency and improving living conditions of low income urban households by providing basic urban services and housing. The project includes: a) a policy and institutional reform; b) rehabilitation and expansion of city roads, development of new solid waste sites, provision of solid waste equipment and relocation of 15 kilometres of power lines; c) rehabilitation and expansion of water and sewerage services including refurbishing existing and constructing new sewage treatment and water supply facilities and a water loss reduction program; d)

residential housing sites including on-site infrastructure for 5000 upgraded and in-fill housing sites; and e) implementation assistance.

The total project cost is US \$51 million and is mainly funded through a loan from the World Bank. It started in 1994 and is due for completion in 2006. The project is based on the principles of enabling shelter and cost-recovery; meaning that the beneficiaries will be paying for the infrastructure. The UDP plans to benefit about 100,000 people in 15,500 households.

The project has made the following achievements:

- Major collector roads have been upgraded to all weather level, thus improving access to the informal settlements.
- A solid waste landfill site constructed in Mbabane and solid waste collection and management equipment purchased for both Mbabane and Manzini so as to improve the solid waste management function.
- Water reservoirs constructed in both Mbabane and Manzini to increase capacity to aptly service the informal settlements.
- Rehabilitation of sewer network and sewerage ponds in Manzini has been completed
- Upgrading of water treatment works and pumping mains station in Mbabane to increase the water supply in Mbabane have also been completed

2.1.6.1.4 Institutional Strengthening

In 1988 Government established the Human Settlement Authority (HSA), which is responsible for among other things:

- Assisting Government in formulating policy relating to human settlements;
- Ensuring orderly development of existing and future urban and rural settlements.

It also provides guidance to the private sector development of human settlements, housing and land development through approval of proposals for the development of townships and housing schemes.

In its advisory role, HSA works closely with the Swaziland National Housing Board (SNHB) to effect a national human settlement policy. The SNHB plays a key role in developing large-scale site and service schemes, as well as the development of affordable housing projects on a self-financing basis. The Board earns revenue through the sale of serviced plots and housing to low and middle income households.

The Swaziland Building Society, the Swaziland National Provident Fund, the Swaziland Development and Savings Bank and other institutions do make housing loans available.

2.1.6.2 Priority issues and future options

There is a continued rapid urbanisation rate within Swaziland, with annual growth rates in excess of 5%. This is due to a number of factors. Firstly, the natural population growth within the cities causes a need for expansion. Secondly, increasing hardships and costs of agricultural production are forcing the rural population to move to the cities and towns in search of work opportunities. Third, the pull of the cities, which include the availability of and better access to infrastructure and services and a wider range of opportunities. Swaziland therefore needs to address these issues through the following:

2.1.6.2.1 Addressing urbanisation

Policies and strategies need to be implemented which strengthen the capacity and facilities of secondary towns so as to create a balance between urban and rural development within a regional development plan. Methods of improving the standard of subsistence life also need to be devised e.g. extending water and power supplies. Strengthening the capacity of rural land to accommodate increased numbers and produce efficiently also needs to be strengthened.

2.1.6.2.2 Enabling adequate shelter

Although Government is currently implementing the UDP which addresses to some extent these informal settlements, there is still a large number of Swazi citizens who lack adequate shelter, both in the urban and rural areas. There will, however, still be a number of residents which cannot participate in this project due to levels of affordability.

If the Government hopes to provide adequate shelter for all citizens then the number of policies proposed through the UDP will have to be adopted. Methods of delivering appropriate and affordable housing in an economically sustainable way have to be developed. A strategy for the provision of appropriate, adequate and affordable rental accommodation also needs to be developed and implemented. Financial assistance would need to be secured in this regard.

Although regulations have been introduced, and are presently being amended, which acknowledge the use of traditional building materials in certain areas of towns and cities, innovation and investment is required in shelter techniques which are appropriate, affordable and which utilise local resources.

2.1.6.2.3 Strengthening financial institutions

Financing agencies need to be further strengthened to provide funding opportunities and institutional capacity so they may service the lower income strata within the housing market. Housing is a very small proportion of the lending of commercial banks. Community based financing revolves around the Savings and Credit Societies. These institutions are currently under-capitalized and cannot provide significant housing finance. Extension of the reach of financial institutions into the areas where lower income groups live is a priority. The informal areas contain many people who could enter the housing market if they could obtain finance.

2.1.6.2.4 Providing urban management

The provision of infrastructure is the responsibility of the Government. The rate of urbanisation has overstretched the management capacity of Government institutions and methods of service provision need to be upgraded and extended to keep pace with the rate of urbanisation and population growth.

The levels of basic services such as water and sanitation need to be improved throughout the country. The levels of water related diseases and infant mortality are unacceptable, particularly as Swaziland is classified as a "lower middle-income" country. Serious deficiencies exist in the water distribution system as well as the waste water treatment system. The extent of electricity supply, particularly in rural areas needs to be improved.

A number of the Government agencies responsible for the provision and management of urban services, ranging from water supply to housing loans, need to be strengthened in terms of human resources to enable them to operate efficiently and be financially viable and sustainable. Many implementation agencies suffer from problems with organisational structure, financing and manpower development. To enable efficient housing and infrastructure delivery, these agencies must have sufficient capacity for implementation, operation and management.

2.1.7 Integrating environment and development in decision making

This section of Agenda21 provides strategies for an integrated response to environmental, social and economic considerations through four broad areas: integrated environment and development policy, planning and management; effective regulatory and legal frameworks; effective use of market and economic instruments and incentives; and integrated environmental and economic accounting.

2.1.7.1 **Achievements**

Government has initiated a number of policies aimed at decision-making for sustainable development. Most of these policies have enshrined the recognition, to various degrees, of the

importance of environmental protection and management and a participatory approach to decision-making.

Swaziland has made tremendous strides in integrating environmental management in decision-making mainly through the following means:

2.1.7.1.1 Integrating environment and development in decision-making

The formulation and implementation of the Swaziland Environment Act and the establishment of the Swaziland Environment Authority (SEA) in 1992 were major achievements for the country. The SEA's mission is to "ensure that Swaziland's development is environmentally, economically and socially sustainable, by means of promoting sound environmental policies, practices and development which meets appropriate national and international standards". The SEA adopted the Environmental Audit, Assessment and Review (EAAR) Regulations, 1996, and subsequently review them in 2000.

The SEA, through donor funding, has been successful in formulating and implementing the Waste Regulations, 2000 which provide for the declaration of Waste Control Areas (WCAs) by the Minister responsible for the Environment. The declaration of WCA is done so as to ensure that even those areas which are not in urban areas (i.e. peri-urban and rural) and therefore not serviced by the local governments, can have an organized system for waste management. Areas can be declared as WCAs when they have reached a stage where the amount of waste generated, and the way in which the waste is managed, have become a cause for concern.

In some respects, Swaziland is ahead of many countries in the SADC region in requiring Environmental Impact Assessments (EIA) to be undertaken for all new development or infrastructural projects. The introduction of the Environmental Audit, Assessment and Review Regulations (EAARR) make it compulsory for all new projects to undertake an environmental assessment prior to start-up to ensure that environmental impacts are adequately mitigated for. The Environmental legislation sets out the procedures for the whole EIA process, including project categorisation, as well as procedures for dealing with lack of compliance by developers.

For effective integration of environment and development in decision-making, the environmental legislation provides for intersectoral cooperation to promote the participation of important stakeholders in environmental management and development. In particular, the EAARR Regulations identify the departments and institutions that should be involved in the EIA process. These include the central planning agencies, i.e. the Ministry of Economic Planning and Development, the Ministry of Finance and the Ministry of Public Service and Information which are responsible for the planning and budgeting for national development projects.

The Ministries are required by the regulations to ensure that all proposed development projects are subjected to some form of environmental assessment before they may be implemented. The Ministry also helps ensure that project total cost estimates are inclusive of the budget for implementing the necessary environmental impact assessment studies and the associated mitigation plans.

The draft Environmental Management Bill will also require that Ministries conducted a Strategic Environmental Assessment on all new programmes and policies to mitigate for their environmental impact.

The environmental regulations further provide for public participation in deciding whether or not proposed major developments should go ahead or not. This is done through public meetings and hearings, where public views about projects that are likely to have significant environmental impacts are gathered to help guide decision-making.

The SEA has a mandate to secure the effective coordination and integration of environmental management activities and principles in the country's development process. The SEA also

play pivotal roles in numerous sectoral policy formulation particularly where issues relating to the management of natural resources is a feature, e.g. water, forestry, land, agriculture etc. The SEA is also responsible for providing advice to government on proposals for ratification of international convention related with environment issues.

2.1.7.1.2 Strategies for environment and development

In response to agreements made at the Rio Summit, in 1995 the Swaziland government charged the SEA to develop the Swaziland Environmental Action Plan (SEAP). This programme was supported by UNDP's Capacity 21 Programme.

The SEAP process used a participatory approach, where major stakeholders from Government, parastatals, NGOs, the private sector, members of the general public and rural communities were consulted and involved. The SEAP was approved by Government in 1997.

The SEAP has the following objectives:

- Provide a state-of knowledge overview of the environmental conditions in the country, Identify, prioritize and where possible quantify environmental problems
- Propose solutions to immediate environmental problems in the form of programs and projects, and institutional and legislative reforms, with consideration of their funding requirements and their human resource/capacity-building needs
- Establish a clear indication of government's priority areas with respect to the environment so as to guide and give proper orientation to donor intervention in this field
- Establish a framework which provides coherent direction for the process of environmental monitoring and action planning in the future, and Provide a framework for continuous development and environmental policy dialogue within the country and with donor partners

As a means of implementing the action plan Government has identified the following programme areas:

- Capacity building for effective environment management
- Environmental education, public awareness and participation
- Management and use of biodiversity
- Resource use for increased productivity
- Waste management, pollution control and environmental health.

2.1.7.1.3 The Environment Management Act and Policy

Emerging from the SEAP is the draft Environment Management Bill that is intended to promote the management, enhancement, protection and conservation of the environment and the attainment of sustainable development in Swaziland.

The objectives of the Bill are to:

- establish a framework for environmental protection and the integrated management of natural resources on a sustainable basis;
- transform the Swaziland Environment Authority into a body corporate;
- establish a National Environment Fund (NEF); and
- provide for matters incidental to the above objectives.

The policy is based on four core principles governing:

- responsibility for environmental conservation;
- how we interact with and use the environment;
- the environmental rights of individuals; and
- the wider context of sustainable development.

2.1.7.2 Priorities and future options

Major concerns, which emerge from the Management Bill centre on the fact that the natural resources base is fast being depleted and polluted need to be addressed. Air and water are evidently being polluted, not only by local industries but also largely by transboundary pollution. Unsuitable land use, poor land management and lack of appropriate information systems are resulting in declining production, degradation and contamination of the environment. The most serious environmental effects of land degradation include deforestation, loss of biodiversity, soil depletion and range degradation.

There is need for the finalisation of the review and resultant adoption of the Environment Bill so that it becomes Act. This would facilitate continued integration of environmental issues into development through regulation. Institutional support for the SEA is needed to improve its capacity.

2.2 Conservation and Management of Resources for Development

This section deals with the sectoral issues of Agenda 21 relating to natural resources and their management and protection.

2.2.1 Protection of the Atmosphere

Primarily addresses three atmospheric issues - climate change, stratospheric ozone depletion and trans-boundary air pollution.

Swaziland is a minor contributor of Green House Gas (GHG) emissions but is highly vulnerable to the global impact of climate change and the transboundary influences of her neighbours (South Africa is ranked 18th in global CO₂ emissions).

CO₂ emissions per capita is around 0.871 Gg which is on the low side compared to both the African region and lower still compared to the developed worlds average. The national inventory reveals that the country's total emission of CO₂ amounted to 3,783 kilotonnes (Kt). Methane amounted to 64Kt and nitrous oxide 1Kt.

2.2.1.1 Achievements

Swaziland signed the UN Framework Convention on Climate Change (UNFCCC) in Rio in June 1992, and submitted its instrument of ratification of the Convention in September 1996. The government has now initiated action to implement its commitments within the Convention. Swaziland has Acceded the Kyoto Protocol. Swaziland also signed and ratified the Vienna Convention for the Protection of the Ozone Layer on 12 Dec 1994.

The SEA has the responsibility for coordinating the country's programme to fulfil its obligations under the UNFCCC. In this regard, the SEA has negotiated a two-year project on Enabling Activities for the Implementation of the UNFCCC.

Swaziland signed and ratified the Montreal Protocol on Substances that Deplete the Ozone Layer (1 Jan 1989 10 Nov 1992 respectively) and established a National Ozone Office within the SEA.

As a first step for accessing the funds through the GEF to implement projects related to the Montreal Protocol, Swaziland prepared a Country Programme (CP) outlining governments' commitment to take appropriate action to ensure compliance with the protocol. The Country Programme contains an analysis of the current situation with regard to the production and consumption of Ozone Depleting Substance (ODS), together with a strategy and plan of action taken by government. As part of the CP, a Refrigerant Management Plan has been prepared and is being implemented. The Plan is a comprehensive phase-out strategy.

2.2.1.2 Priority issues and future options

To adequately cope with the expected climate change scenarios, it will be imperative for government to start formulating programmes to mitigate adverse impacts resulting from a drier climate.

Mitigation options are to be centred on the energy and forestry sectors (as these are where most opportunities exist for intervention).

For energy, mitigation is needed on both the supply side and end use.

On the supply side: Electricity generation through cogeneration by the use of high-pressure steam turbines burning bagasse and wood-pulp residue as input fuel.

On the end-use side:

- Energy efficient boilers, and electric motors
- Matching electric supply to demand
- Improved maintenance and inspection of motor vehicles
- Gasoline/ethanol blending
- Efficient lighting systems
- Use of solar geysers
- Improved wood stoves
- Switching from the use of wood and kerosene to LPG and electric stoves

On the forestry side, the mitigation intervention could include the following:

- Increasing area under forest cover and reducing degraded areas
- Establishment of additional woodlots
- Introducing agro-forestry activities

Ozone Depleting Substances:

- There is need to put in place a legislation for the control of the use of ozone depleting substances
- There is need for capacity building for officials on equipment repair
- The country should look into the use of alternatives for the operation of refrigeration other than ODS and methyl bromide
- Facilities and effective monitoring procedures are needed for the disposal of fridges to contain the emission of gases

2.2.2 Integrated approach to the planning and management of land resources

Provides a framework for developing an integrated approach to sustainable land resources use. The Chapter proposes the set up of sustainability and environmental impact indicators, an ecosystemic approach to land use planning and the set up of public participation processes.

2.2.2.1 Achievements

Swaziland's approach to integrated planning and management of land resources has been ad hoc, but the Rural Resettlement Policy (which is in final draft form) enshrines the integrated approach in relation to the rationalisation of land resources. A Livestock Development Policy is also in place, covering range use management issues. The draft Land Policy also incorporates the integrated approach to land management and once it has been approved, a

Directorate of Lands will be created that will be charged with the sustainable management of the land resource among other responsibilities.

Another national achievement has been the formulation of the National Physical Development Plan for the period 1996 – 2006. The NPDP was prepared, with the intention of giving spatial interpretation to both national economic planning and implementation currently driving all major developments in the country. It is also aimed at strengthening the inter-sectoral coordination of the country's overall development within a spatial framework ensuring a balanced mix of land uses as well as the use of natural resources in the environmentally responsible manner.

2.2.2.2 Priority issues and future options

In order to improve the current land use planning process a national land use planning strategy is required:

- to finalise and implement the Land Policy that has been initiated, mainly because the policy would address issues of more sustainable land use
- to define spatial priorities for major urban, peri-urban and rural land uses.

A new approach is necessary in sustainable land related development, based on the following set of strategies:

- To fully integrate environmental management and economic development planning.
- To approach the planning and development of land and other natural resources in a holistic, integrated and cross-sectoral way.
- To manage natural resources with shared responsibility and participation.
- To develop new partnerships on equitable basis and to involve all stakeholders in the decision making process.
- To develop transparent, comprehensive and accessible systems for provision of land access and legal security of tenure.
- To recognise the private sector as the prime mover in development, and to channel its energies towards sustainable development by clear direction.
- One-sided sectoral approaches to land resource development are to be avoided as they may result in inappropriate use and degradation of resources. To adequately cover all sectors involved it is essential to develop new partnerships between departments, ministries, parastatals, NGO's, land-user associations, communities, individuals. Human resource development is the key to this strategic approach.

2.2.3 Combating deforestation

Forests are a source of timber, firewood and other goods. They also play an important role in soil and water conservation, maintaining a healthy atmosphere and maintaining biological diversity of plants and animals. Forests are renewable and, when managed in a way that is compatible with environmental conservation, can produce goods and services to assist in development.

The overall state of the natural forests and woodlands shows poor management and signs of degradation while the plantations forests are generally well managed. The current deforestation and degradation of the natural forests and woodlands is caused by a combination of factors such as conversion of land to agriculture and other land uses, uncontrolled extraction of forest products from communal land, large livestock populations and expanding infrastructure development. Forest degradation is further compounded by a number of underlying socio-economic conditions caused by increasing population pressure. The associated problems include poverty, hunger, access to land, lack of jobs and income generating opportunities.

2.2.3.1 Achievements

Achievements have been made in the following areas:

- Swaziland signed the Statement of Principles on Forests at the Rio Summit
- Drafted a Forest Policy
- Drafting a National Forest Action Plan and a new Forest Act
- Swaziland has improved capacity and productivity of forestry industry with potentials for establishment of smallholder out-growers schemes and partnerships
- Introduced and promoting community forestry including wattle forests, individual and community woodlots, homesteads and school planting as well as incorporation of tree planting into the Swazi farming system. Trees have also been planted to rehabilitate degraded lands.
- Increased utilisation of communal wattle forests, small gum and pine plantations and woodlots to sustain livelihoods of rural communities and households through sales of timber, bark, poles and charcoal.
- Swaziland has developed “Criteria and Indicators for Sustainable Forest Management” on a national level as well as for industrial forest plantations on a forest management unit level in line with the UNEP/FAO initiated Dry Zone Africa Process.

2.2.3.2 Priority issues and future options

- Secure resources to implement the national forest policy and the national forestry programme and enforcement of forest legislation.
- Ensure full recognition of the true contribution of forestry to the economy of Swaziland, to the socio-economic well-being of its citizens and to environmental protection.
- Increase benefits and revenue to communities accruing from the use of natural and planted forest resources.
- Bring the informal forest sector into the mainstream of national economic development and enhance the participation of citizens in the formal forestry industry through out-growers schemes, joint ventures and partnerships.
- Devolve the management of the natural resources including forests on communal land to the local communities through establishment of chiefdom based Natural Resources Management Committees, through capacity building, etc.
- Ensure implementation of the national forest policy and the national forestry programme as well as approval and enforcement of the draft new forest legislation.
- Regulate the increased unsustainable utilisation of timber and non-timber forest products from the natural forests and woodlands particularly sale in medicinal plants, fuelwood, and woodcrafts.
- Facilitate enabling and viable environment for expansion of forestry industry and further develop downstream processing industries to create employment opportunities and increase revenue.
- Ensure the implementation of forestry related programmes and activities enshrined in the National Development Strategy, Swaziland Environmental Action Plan, the Biodiversity Strategy and Action Plan and the National Action Plan to Combat Desertification.

2.2.4 Managing fragile ecosystems: combating desertification and drought

Desertification is the process of land degradation caused by variations in climate and by human impact. It particularly affects drylands that are already ecologically fragile. The most

obvious impacts of desertification are the degradation of grazing lands and a decline in food production. The results of drought and desertification include poverty and starvation.

Swaziland is experiencing formidable challenges of addressing land degradation and desertification problems. These problems are experienced within the context of a rapid population increase, worsening poverty and progressive increase in the utilisation of environment and land resources. Presently, almost half (49%) of the total land is vulnerable to desertification. Moreover, more than half (55%) of total communal rangelands have experienced a sharp decline in their productivity. The semi - arid portion estimated at 26% of the total land area is consistently experiencing drought conditions which render the soil prone to erosion.

2.2.4.1 Achievements

To overcome the problems mentioned above, Swaziland signed the international Convention to Combat Desertification (CCD) and prepared, with assistance from UNDP/UNSO, a National Action Programme on Drought and Desertification (NAP) to address the land degradation and drought issues. The Convention gives Swaziland a unique opportunity for immediate and practical action at grassroots level where rural communities in drought affected and degradation-prone areas could start on a process aimed at improving their standard of living.

Swaziland has participated in sub-regional and regional workshops designed to deliberate on how African countries can collaborate in the implementation of the convention. Programmes which can best be addressed at sub-regional or regional levels have been discussed and formulated during these workshops.

A National Steering Committee (NSC) to work towards the implementation of the convention and ANP has been set up. It consists of members from relevant government institutions and parastatals.

To compliment the NSC's efforts in combating drought and natural disasters, a national Disaster Task Force was established under the office of the Deputy Prime Minister who's mandate is to coordinate disaster responses surrounding a range of catastrophes including food shortages, drought and other natural disasters. In many cases, NGOs (who are also members of the task force) are tasked with the distribution of support and aid.

2.2.4.2 Priority issues and future options

- Concentrate on implementable programmes e.g. research, studies, awareness programmes, poverty alleviation
- Establish a flexible, integrated, multi-agency approach to combat desertification, to combine community action and indigenous knowledge with sound scientific socio-economic and ecological information, to find the root causes of desertification, to address the problems of desertification in the context of a long-term programme
- Formulate a water resource management strategy which will provide new and innovative ways of water provision and management.
- Land degradation mainly in the form of soil erosion, deforestation and river siltation has now become a major environmental problem (especially in the upper middleveld). Land rehabilitation and conservation interventions can have a significant impact on the livelihoods of rural communities. Efforts should be made to undertake activities that can result in the restoration of degraded lands and conservation of any that is currently under threat.
- Education and public awareness are instrumental in conscientising various sections of the population to the dangers associated with desertification and possible consequences. Attempts should therefore be made to educate and raise awareness on these issues for both the policy makers, development workers and resource users. The issue of capacity

building amongst these various sections particularly at community level cannot be underestimated

- Whilst there are organisations that are collecting, analysing and processing information on the state of the environment, the reports produced were not meant for strategic management of the environment and natural resources as part of an integrated approach to sustainable development as promoted by the CCD. There is a need to establish an Environmental Information System for the NAP process the objective being the development of a common information base and an operational framework that will allow the NAP process to effectively achieve its responsibilities on combating desertification and mitigating the effects of drought in Swaziland.

2.2.5 Managing fragile ecosystems: sustainable mountain development

Agenda 21 calls for the Generation and strengthening knowledge about the ecology and sustainable development of mountain ecosystems; and promoting integrated watershed development and alternative livelihood opportunities.

2.2.5.1 Achievements

Swaziland has no specific programmes dealing with mountains, but rather treats them in the same manner as other land resources in term of planning for their sustainable management and use.

2.2.5.2 Priorities and future options

Land degradation is a widespread problem in the country, though it is more evident in upper middleveld and highveld. This impacts upon the quality of runoff and removal of the important soil horizons. Priorities for the sustainable use of mountains have to be concentrated upon the sustainable management of these catchment areas.

As a result of the limited agricultural productivity for both arable and grazing, mountainous areas would be better utilised for conservation and tourism development.

Government and communities and private sector entities should be encouraged to utilise these areas for sustainable tourism development.

2.2.6 Promoting sustainable agriculture and rural development

Recognises that major reform in economic, agricultural and environmental policies are required to provide adequate food for an expanding population. Programmes primarily target the increase of food production and food security, improving the capacity of higher potential agricultural land and land conservation strategies.

2.2.6.1 Achievements

Agricultural production in Swaziland is characterized by arable crop farming and livestock production. Both production systems are undertaken on Swazi Nation Land (about 70% of the country) and Individual Tenure Farms. The achievement of sustained and equitable agricultural development remains the greatest challenge facing the Swazi nation. The essential task of agricultural development is to provide opportunities so that the Swazi people can reach their potential in acquiring a chance for better life. Although the desirability of agricultural development is fully recognised, recent years have witnessed rising concerns about whether other development constraints will limit agricultural development.

The country's greatest achievements have been:

- Investments in irrigated agriculture for communities on SNL through the provision of infrastructure, training and marketing.
- Promotion of smallholder commercial agriculture, for both sugarcane and high value arable crops.

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- Establishment and operation of cattle sale yards which promote offtake and commercialisation of cattle keeping.
 - Establishment of an Early Warning Unit within MOAC to alert and advise farmers of important climatic conditions that would affect agricultural production.
 - The improvement of agriculture tertiary education curriculum (in 1996) at the universities Faculty of Agriculture that has been made more relevant to Swaziland's farming system. The introduction of new courses and recently a Master of Science level course in Integrated Land Use and Management.
 - The establishment of the Plant Genetic Resources Centre (Gene Bank) in 1999 has collected and conserved the genetic material of many indigenous crops.
 - An ongoing project on collecting and conserving the genetic resources of indigenous small ruminants.

2.2.6.2 *Priorities and future options*

Swaziland's priorities for its agriculture sector are:

- to improve food productivity and security through greater and more efficient institutional support and training of farmers in appropriate techniques
- to improve the security of tenure of land that would allow for greater commercialisation and on-farm improvements
- raise awareness among rural communities on the importance and role of the natural environment and the damage that can be done through inappropriate farming methods
- improve the institutional arrangements and rights of farmers to allow their full participation in decision-making (the creation of farmer associations is common particular among sugarcane farmers and its important that business skills and leadership skills are given to these groups)
- greater research efforts in agriculture that are relevant to Swazi farmers particularly research in crop and animal production and the generation of technologies
- improved access to training at various levels for local communities, extension workers and women
- due to the high levels of poverty among rural people that limits their access to micro-financing, Government needs to facilitate improved access to developmental finance
- develop an agriculture policy that incorporates the concerns of the farming community (arable and livestock) and provides them with a clear framework within which they can prosper
- further support of the Plant Genetic Resources Centre

Swaziland's priorities for rural development in general include:

- improvement in infrastructure (mainly rehabilitation of feeder roads) that will facilitate improved transportation of marketable goods and services.
- training of rural decision-makers at Inkhundla level to ensure appropriate decision relating to planning and land use are made.
- prioritisation of rural electrification through grid extensions to Government institutions, primarily schools and clinics

2.2.7 Conservation of biological diversity

The essential goods and services on our planet depend on the variety and variability of genes, species, populations and ecosystems. The loss of the world's biological diversity continues, mainly from habitat destruction, over-harvesting, pollution and the inappropriate

introduction of foreign plants and animals. This decline in biodiversity is largely caused by humans, and represents a serious threat to our development.

2.2.7.1 Achievements

Swaziland has great variation in landscape, geology and climate. The high topographical diversity of Swaziland has created a diverse assemblage of differing environmental conditions, which form the basis of the country's biodiversity. Three biomes occur in Swaziland, namely: the grassland, savanna, and the forest biomes. The forest biome is the most restricted of the three biomes, covering less than 1% of Swaziland's total area.

There are a total of twelve protected conservation areas in Swaziland (covering 4% of the country's area).

The ex-situ conservation of plants in Swaziland is currently being implemented by the Plant Genetic Resources Centre, the National Herbarium and some plant nurseries.

Since becoming a Contracting Party to the Convention on Biological Diversity (CBD), Swaziland has made the following achievements:

- Signed and ratified the Convention of Biological Diversity (CBD).
- Signed and ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on 3 March 1973 and 24 Jan 1997 respectively.
- Formulated a National Environment Action Plan (SEAP), a National Biodiversity Strategy and Action Plan (BSAP) and a Forest Policy and Forest Action Plan.
- Gazetted a new Flora Protection Act of 2001. This is an Act to protect indigenous flora and to provide for matters incidental thereto. The 2001 Act replaces the 1952 Act. The Act prohibits any person from plucking, gathering, cutting, uprooting, injuring, breaking or destroying a plant of any species that is listed in the Schedule to the Act. The Minister responsible for agriculture is empowered to establish and extend flora reserves and botanical gardens. What is significantly different about the new Act as compared to the 1952 Act is a requirement that an Environmental Impact Assessment (EIA) be carried out in respect of any activity that would impact on indigenous flora.
- Amendment of the Game Act of 1953 in 1991 and 1993. In terms of this Act, no plant may be removed or tampered with, no animal may be removed or hunted. By Legal Notice in 1998 the responsibility for the administration of the Act was transferred to the King's Office issued by His Majesty King Mswati III. This Act is clear, strict and is reasonably well enforced
- Established a Biodiversity Implementation Programme Committee (BPIC) to oversee the implementation of the CBD and its related activities.
- Promulgated regulations on Environmental Impact Assessments (EIA) requiring investigation of impacts upon biodiversity for all projects subject to these regulations.
- Acquired Block B World Bank/GEF funds to prepare a project on biodiversity conservation and eco-tourism development.
- Strengthened the National Plant Genetic Resources Centre and National Herbarium.
- In 2001 a study was carried out to identify additional protection worthy areas with the view to declare them protected. This process is on-going and to date an additional 44 areas have been identified that would cover 14% of the country. Swaziland's seven existing reserves, which cover 64,100 ha, cover only 3.7 % of the country. The SNTC plan to achieve the IUCN minimum of 10% coverage.
- The establishment of a Transfrontier Conservation Areas (TFCA) focusing on a ecosystem wide management approach in areas of highly significant biodiversity shared by Swaziland, Mozambique and South Africa.

- Established the country's first Community Based Conservation Management area in Shewula.
- Initiated the formulation of a national biosafety framework.. A national biosafety framework is a system of legal, technical and administrative instruments set in place to address safety for the environment, including the safety of humans, in the field of modern biotechnology.
- Carried out a Farm Animals Genetic Resources Survey.
- Instituted a Fisheries Survey in 2002 to prepare an inventory of fish species in the major rivers.
- Prepared two National Biodiversity Country papers in 1998 and 2002.
- Undertook a study on Protection Worthy Areas.
- On going project to prepare a Tree Atlas of Swaziland.
- Prepared a Bird Atlas.

2.2.7.2 Priorities and future options

2.2.7.2.1 Alien invasive species

Invasive species are spreading at an alarming rate throughout Swaziland. Grazing for both wildlife and livestock are threatened by these weeds as is our biodiversity. Management of these invasives is going to be a costly and timely exercise and will need whole hearted support and cooperation by government, the private sector and neighbouring countries.

2.2.7.2.2 Fragmentation of ecosystems

A specific trend that needs urgent attention with regards the conversion of land to sugar cane and is the fragmentation of the Lowveld ecosystem. This is a phenomenon associated with the proliferation of irrigation schemes and requires attention at national and subcontinental levels. The destruction of the vegetation through these schemes has contributed to the gradual diminution of Lowveld Woodland areas. More and more areas of bushveld are being destroyed, with the risk that fragmentation will spread to the point where any remaining woodland is isolated in small pockets, eventually resulting in non-viable habitats.

2.2.7.2.3 Biodiversity conservation options for communal management

The lack of awareness of the importance and role of indigenous forests and woodlands in people's daily lives stipulates the need for intensive research and education programmes in the country. Management of any resource requires appropriate research, education and training in order to develop the necessary experience and expertise to make wise decisions. The generation of income from the sustainable use of the country's biodiversity will have to become the major economic engine for supporting conservation action in communal areas. This will have to be implemented through a proposed Natural Resource Accounting system.

2.2.7.2.4 Natural Resource Accounting

The economic, environmental and social gains and losses resulting from the conversion of land are not corrected for in the current system of National Income Accounting (NIA). A careful investigation needs to be made into the way contributions of agricultural production to GDP are currently calculated, so as to provide an improved estimate. the NIA system for Swaziland should include Natural Resource Accounting (NRA). It is not easy to place monetary values to the value of biodiversity, but Natural Resource Accounting provides a means of doing so. According to the Natural Resource Accounting in Southern Africa, sustainable development (to which Swaziland is committed, as reflected in the NDS and other policy documents) is concerned with the question of whether current actions augment or reduce the opportunities (i.e. economical, ecological and social) that future generations face as a result of decisions made in the present. Given the close linkages that there are in

economic activity and environmental change, development indicators should integrate the economy and the environment more closely. There is therefore a strong argument for Swaziland to introduce Natural Resource Accounting in the NIA system.

2.2.7.2.5 Legislative development

Legislation dealing with land and livestock in Swaziland need to be urgently updated and enforced as they influence biodiversity immeasurably. The Swaziland Flora Protection Act (2001) which provides legal protection for over 200 plant species in the country, needs its Schedules to be regularly revised. In addition, the Plant Control Act (1981) which provides for the control, movement and growing of plants incorporating the protection of land from noxious weeds needs to be urgently updated. A new list of noxious weeds needs to be drafted and the Act amended accordingly.

To better protect existing wetlands and their unique ecosystem, the country needs to ratify the Ramsar Convention on Wetlands and the Conservation of Migratory Species of Wild Animals both of which are viewed by local conservationists as critical to the protection and management of Swaziland's threatened biodiversity.

2.2.7.2.6 Lack of control of the medicinal plant trade

The quantity and type of indigenous tree and shrub products that are sold to markets inside and outside of Swaziland for medicine is largely undocumented in the country. Where the species are harvested from and how they are harvested needs to be quantified and justified. This illegal trade is not monitored in Swaziland and the species that are sold are in many cases not harvested sustainably. Extinctions of species could occur in the immediate future if this trade is not formalised and regulated.

2.2.7.2.7 In-situ conservation of genetic resources

Species that are threatened for various reasons are not being propagated and very few are monitored effectively. Large tracts of land have been cleared and are presently earmarked for agricultural expansion and have had large numbers of indigenous species removed or destroyed. Unfortunately, there is still no formal institution that acts as a refugia for the important species or that offers the education facility that is needed for children to help them appreciate what biodiversity Swaziland has to offer and its management there-of.

2.2.7.2.8 Capacity building

To effectively implement the BSAP, a Capacity Needs Assessment is required.

2.2.8 Environmentally sound management of biotechnology

Biotechnology uses traditional knowledge and modern technology to change the genetic material in plants, animals and microbes and create new products. It promises to make a significant contribution to better health, increased food production, better reforestation, more efficient industrial processes, decontamination of water and the cleanup of hazardous wastes. Most of the developments in modern biotechnology have been in the industrialized world. Biotechnology offers new opportunities for global partnerships between these countries - rich in technological expertise - and developing countries, which are rich in biological resources but lacking in funds and expertise to use them.

The potential that biotechnology can make to the improvement of quality and standard of living is recognised, especially in the health sector. In the environment and agriculture sectors, the potentials also recognised but there is a need to take stock of where we are at present essential.

In the agriculture sector, the country currently relies heavily on other countries for seed, agricultural inputs and other requirements. This dependence, particularly on South Africa who have developed a Biosafety policy and legal framework and are currently growing genetically modified crops is of concern to Swaziland who currently lacks these controls. Existing

legislation relating to phytosanitary are poorly enforced leaving a hole in the trade and movement of GMO into the country.

However, essential to first understand fully first and second generation biotechnologies before attempting to embark on more advanced technologies.

Genetically modified exotic tree species are already used elsewhere in the industrial forestry sector and are expected in Swaziland in the near future. Genetically modified tree species have the potential to increase the yield and profitability of forest plantations, in particular through increased growth rate, density and immunity to certain pests and diseases. However, the potential ecological dangers include out-competing natural plant species, increased water consumption, increased encroachment due to uncontrollable invasiveness, increased risk to certain pests and diseases, and narrowing the genetic base.

2.2.8.1 Achievements

Biotechnology, an emerging knowledge-intensive field, is a set of enabling techniques for bringing about specific man-made changes in deoxyribonucleic acid (DNA), or genetic material, in plants, animals and microbial systems, leading to useful products and technologies.

Biotechnology promises to make a significant contribution in enabling the development of, for example, better health care, enhanced food security through sustainable agricultural practices, improved supplies of potable water, more efficient industrial development processes for transforming raw materials, support for sustainable methods of afforestation and reforestation, and detoxification of hazardous wastes.

This chapter of Agenda 21 has not received priority attention within both government programmes or through private sector involvement.

Only recently (end 2001) has awareness raising of the significant issues relating to Biosafety and biotechnology started. A national workshop on biotechnology has taken place to initiate debate of the issues.

In June 2002, Swaziland signed the International Treaty on Plant Genetic Resources for Food and Agriculture during the World Food Summit in 2002.

2.2.8.2 Priorities and future options

In order to take advantage of the opportunities that are perceived to be possible with biotechnology it is necessary to be party to relevant international agreements. Swaziland should sign the Cartagena Protocol on Biosafety to the Convention on Biological Diversity to provide international protection and support in her efforts to utilise the benefits of biotechnology.

To better equip the country for the opportunities and threats from biotechnology the following are seen as priorities:

- A programme of awareness raising of the issues relating to biotechnology among stakeholders
- Improvement in the human and technical capacities of relevant institutions (MOAC)
- Establish the political positions of key export markets on GMOs must be clearly understood (feeding livestock meant for export to the EU with GM feeds may negatively impact upon these exports).
- Establishment of a committee to oversee the evolution of appropriate biotechnologies for the country
- A Government policy on biosafety, which is usually part of a broader policy on the development of biotechnology.

- A regulatory framework, often consisting of a framework law or decree with one or more implementing regulations and guidelines.
- A system to provide information to stakeholders about the national biosafety framework.
- A mechanism to handle requests for permits for certain activities, such as releases of GMOs into the environment.
- A mechanism for follow up and feed back, including monitoring and inspections for compliance.

2.2.9 Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources

The oceans are an essential part of the global life-support system. They cover much of the Earth's surface, influence climate, weather and the state of the atmosphere and provide food and other resources for our growing world population. Oceans are under increasing environmental stress from pollution, over-fishing and degradation of coastlines and coral reefs.

2.2.9.1 Achievements

As a land locked country, the relevance of the protection of seas, coastal areas and the use of their living resources, is limited. However, Swaziland appreciates the importance of this measure and will support where ever possible other country's efforts to do so.

2.2.9.2 Priorities and future options

Although landlocked, the living resources of the oceans are consumed by citizens of Swaziland and as such the country needs to be more involved in the issues that surround the fishing of oceans and the importance of the fishing industries for her neighbours.

2.2.10 Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources

Fresh water is vital for drinking, sanitation, agriculture, industry, urban development, hydropower generation, inland fisheries, transportation, recreation and many other human activities. It is also critical for the healthy functioning of nature. In many parts of the world, there is widespread scarcity, gradual destruction and increased pollution of freshwater resources.

2.2.10.1 Achievements

Access to safe potable water is critical for sustainable development. The provision water, particularly in rural areas, remains a high priority for government. The Rural Water Supply Board, a department of the Ministry of Natural Resources and Energy, is responsible for the supply of water in rural areas. Water supply interventions primarily aim at providing safe water at convenient distances to meet the basic human needs of drinking, washing and cooking.

Government is committed to providing water to all her people and consistently provides capital for supply projects which are handed over to local communities for operation and maintenance. Hundreds of rural water supply schemes have been built in the country – by both NGOs and government. Greater emphasis is now being placed on providing both water and sanitation to all new schemes.

An allocation of E6.4 million was provided in the 2002/03 budget towards clean water supply in the rural areas and includes the maintenance and drilling of boreholes in rural areas that will provide potable water for communities relying on unsafe natural water sources and who are under a constant threat of drought or water stress.

According to the Water Supply and Sanitation Fact Sheet (WHO), water supply coverage is greater in urban areas where close to 89% whereas rural areas only 40% are covered. The same document reports that around 89% of the urban population currently have access to a functioning safe water supply of the population but in rural areas this is down to 40%.

To provide a more integrated approach to water management, a draft Water Bill, reviewed and updated in 2001 recommends the establishment of a National Water Authority (NWA), which will be responsible for, among other responsibilities, catchment management. Work has already begun on the Water Policy formulation: with pressure on the water resource from many directions, both quantitatively and qualitatively, the pricing of water will be a key issue in land development and use. One of the objectives of the Water Bill will be to provide for the development of appropriate policies on water allocation, water pricing, pollution control and water conservation (storage), and catchment management.

The country has undertaken numerous hydro-geological and hydrological assessments and mapping to provide information base upon which planning for the use and management of surface water can be carried out.

At a regional level, water in the region is a scarce resource with 70% of the regional surface shared between two or more member states. At the same time, a good number of states are prone to devastating droughts which all leave a trail of misery in their wake, drastically affecting humans and animals alike and negatively impacting on development.

It is projected that in the next 20 to 30 years, three or four SADC member states will be facing serious water shortages if nothing is done now to better manage this resource. It was in recognition of the importance of a coordinated approach to utilisation and preservation of water that the SADC member States, including Swaziland, signed the Protocol on Shared Watercourse Systems in 1995.

In 2000 the country signed the Revised SADC Protocol on Shared Watercourse Systems which seeks to foster closer cooperation for judicious, sustainable and co-ordinated management, protection and utilisation of shared watercourses and advance the SADC agenda of regional integration and poverty alleviation.

Swaziland, Mozambique and South Africa are due to sign an Interim Water Agreement at the World Summit. This agreement is of critical importance to Swaziland in the pursuit of the enlargement of irrigated areas, mainly centred around small holder sugarcane developments, utilising water courses shared by the three countries.

2.2.10.2 Priorities and future options

A national water resources development strategy is necessary to improve the supply, management and rational use of water. The limits of the use of existing surface water sources have been reached, and improvement can only be achieved by enlarging the storage capacity and improving water use efficiencies.

Ground water development takes place by means of boreholes, but selective use has to be made of ground water resources. There are no quantitative assessments available of the recharge of ground water. Present indications are that ground water resources have to be reserved for domestic purposes, drinking water for livestock, and to a certain extent also for small-scale irrigation and minor industries. The use of ground water should not be planned for large-scale irrigation and macro-industries.

A national water resources development strategy would:

- Establish a central government department or agency, such as a National Water Authority, where all responsibility and decision making in water development is concentrated. One of the major tasks is the coordination of all aspects of water development planning, implementation and monitoring programmes, including transboundary arrangements.

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- Formulate a National Water Resources Policy which deals with all aspects of surface and ground water development, regulation, apportionment, etc. Of particular importance is long term planning, based on the analysis of future needs and requirements of water, and the distribution according to the main water uses (urban, industrial, agro-industrial, rural domestic, irrigation, energy generation) and waste water treatment.
 - Define water catchment management plans for the major river systems, including dams, major water works and uses, with special attention to monitoring of water flows.
 - Improve the water storage capacity, based on both large and small to medium dams, in order to deal with future demands and to expand irrigated crop production. Land and water use plans, including irrigation and conservation programmes, should be integrated in order to make full and sustainable use of the water resources.
 - Improve water apportionment, water conservation (water saving irrigation methods, purification techniques, storage, etc.) and surface water monitoring (pollution control).
 - Greater protection of important watersheds, floodplains, wetlands, and other natural capital assets.
 - Establish environmental in-stream flow requirements for all major rivers.
 - Adopt or amend water management laws to require the operation of dams in ways that preserve natural river flows and flood regimes.
 - Make ecosystem protection a core mandate of River Basin Authorities.
 - Increase public-sector support for the provision of services - especially in rural areas, which are home to more than 80 percent of people who lack safe drinking water. Provide funding, training, and technical assistance to community-based initiatives.
 - In general, governments and communities should assert their primary responsibility for providing water services, rather than transferring this responsibility to the private sector. Privatisation can only serve the public good within a strong regulatory framework that ensures that the basic needs of the poor are met and that the water resource itself is conserved - conditions that to date have rarely been satisfied.
 - Build efficiency and conservation into new supply and sanitation infrastructure. Reduce leakage from urban water systems, which often exceeds 30 percent.
 - Invest in community-based watershed restoration and rainwater harvesting projects. Such projects can help recharge local groundwater, store runoff for dry-season irrigation, and make irrigation more widely available.
 - Support initiatives to spread low-cost drip irrigation and micro-sprinkler packages for smallholders.
 - Develop more productive rainfed crop systems.
 - Establish conservation incentives and goals for urban, industrial, and agricultural users.
 - Adopt pricing structures that penalize excessive water use, especially during dry periods.

2.2.11 Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products

Reviews the assessment of risks entailed in the use of chemicals. The chapter also deals with national risk reduction programmes.

The use of chemicals in Swaziland is essential to meet the social and economic goals of the communities or sectors that need to utilise them. Greater effort is needed to reducing their health and environmental impacts. However, a great deal remains to be done to ensure the environmentally sound management of toxic chemicals, within the principles of sustainable

development and improved quality of life for humankind. Two of the major problems, identified are (a) lack of sufficient scientific information for the assessment of risks entailed by the use of a great number of chemicals, and (b) lack of resources for assessment of chemicals for which data are at hand.

2.2.11.1 Achievements

Achievements in Swaziland on this Agenda 21 chapter are limited.

In 2000, Swaziland conducted her first Persistent Organic Pollutants (POPs) Survey to provide baseline data on the type and quantity of toxic chemicals in use within the country.

Following this survey, government, with international donor support, collected obsolete insecticides and pesticides from farmers and suppliers. These are now stored at a special site in Matsapha pending their disposal.

2.2.11.2 Priorities and future options

With Swaziland's emphasis on promoting commercial agriculture and industrial manufacturing, greater quantities of chemicals will be imported and utilised thus raising the threat of chemical pollution and contamination of ground and water.

To mitigate the lack of toxic waste legislation, it is important for Swaziland to sign the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade which opened for signature on 11 Sept 1998. This would protect Swaziland from becoming a dumping ground of external toxic chemicals (knowingly or unknowingly).

POPs remain the main threat to the environment and it is imperative that the country ratify the Stockholm Convention on Persistent Organic Pollutants (POPs). This would provide international protection to the country in the transport and use of these chemicals and provide opportunities for international support in managing POPs.

2.2.12 Environmentally sound management of hazardous wastes, including prevention of illegal international traffic in hazardous wastes

Primarily raises awareness of the treatment and disposal of hazardous waste at national level activities.

2.2.12.1 Achievements

An increasing amount of hazardous waste is affecting human health and the environment, but many countries do not have the expertise to manage the problem. Governments often lack information about how much and what types of pollution are released, and what risk they pose to people and the environment. All national environmental protection plans should include targets for hazardous-waste reduction.

Hazardous waste and its movement both internally and internationally is covered by the Waste Regulations of 2000. These regulations cover the collection, storage and disposal of hazardous waste.

Internationally, Swaziland has signed, though not ratified, the Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa.

2.2.12.2 Priorities and future options

Sign and ratify the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (the Basel Convention) and the Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa (the Bamako Convention).

A national strategy to manage hazardous waste is needed to ensure that the environmental and health impacts of its management are minimised and people are afforded protection against the adverse effects of hazardous wastes.

2.2.13 Environmentally sound management of solid wastes and sewage related issues

Primarily sets a series of national programs that allow for waste minimisation, recycling and cooperative integrated programs between countries.

2.2.13.1 Achievements

Rapidly growing quantities of domestic waste and sewage from urban areas pose threats to human health and the environment. Each year as many as 5.2 million people, including 4 million children, die from diseases caused by the improper disposal of sewage and solid waste. Urban wastes pollute the air, land and water over a wide area. In developing countries, less than 10 percent of urban wastes are treated, and only a small proportion of that treatment meets acceptable standards. By the end of the century, over 2 billion people will lack basic sanitation, and about half the urban population in developing countries will not have adequate waste disposal. Unsustainable consumption, particularly in industrialized nations, is increasing the amount and variety of wastes, and quantities could increase four to fivefold by the year 2025. By the end of the decade, waste-disposal costs could double or triple, particularly in industrialized countries, as disposal sites fill up and stricter environmental controls are imposed. The best way to cope with waste problems is through a waste-prevention approach, focused on changes in lifestyles and in production and consumption patterns.

To focus efforts, Swaziland is preparing a National Waste Management Strategy (NSWMS). The strategy attempts to give effect to the draft National Environmental Policy, draft National Environmental Management Bill and the Waste Regulations 2000. The focus of the strategy is to move towards a holistic approach in waste management, in line with internationally accepted principles but taking into account the specific context of Swaziland regarding the institutional and legal framework as well as geographical and resource constraints. Integrated waste management thus represents a move away from waste management through impact management and remediation to a proactive management system which focus on waste prevention and minimisation.

Legally, solid waste collection, treatment and disposal are covered by the Waste Regulations (Act No.31 of 2000). The SEA are responsible for these regulations.

Two modern landfills have been constructed in the country – one in Mbabane to dispose of the capital city's domestic waste and one in Piggs Peak, a regionally important town in the north of the country. Two other modern landfills are being planned for in other parts of the country.

The health effects of poor waste disposal has been vigorously marketed throughout the country and awareness of the issues is reasonable.

To support national efforts and provide greater public protection from the impacts of poor waste disposal, government has prepared an Environmental Health Bill and Policy and in addition prepared a revised Public Health Bill that seeks to provide greater accountability on waste producers and the environmental effects of poor disposal.

2.2.13.2 Priorities and future options

The NSWMS, for it to be effective, needs to be implemented nationally as designed. This will require substantial financial and human resources that are currently unavailable.

The Waste Regulations provide for Waste Control Areas (WCA) to be proclaimed. Where the Minister for the Environment, acting on the advice of the Authority, and after consultation with the competent authority or organ of Government responsible for rural development

considers that the disposal of waste in any non-urban area is resulting in an adverse effect, or there is a significant risk that it will result in an adverse effect, the Minister responsible for the Environment may, by notice in the Gazette, designate the area as a waste control area. WCAs are designated areas where domestic waste can be disposed of (stored) for collection and disposal. They are more relevant to rural areas as urban areas are covered by the obligations of urban government laws. To date no WCAs have been proclaimed.

2.2.14 Safe and environmentally sound management of radioactive wastes

Include intractable and hazardous waste; programs addressing this issue include: their safe management, transportation, handling and disposal.

Given their potential risks, the safe and environmentally sound management of radioactive wastes, including their minimization, transportation and disposal, is important.

As a nation Swaziland has limited quantities of radioactive substances. What does exist is mainly used by health and medical practitioners (x-ray machines) and research institutions (university).

The application and utilisation of radioactive materials in Swaziland is not very well established and use of radioactive materials is minimal. No written disposal guidelines or monitoring the presence of radioactivity in the wastes is carried out.

2.2.14.1 *Achievements*

None.

2.2.14.2 *Priorities and future options*

The perceived notion that there is only limited radioactive wastes produced in the country is not substantiated by data. A priority for the country will be to undertake such an inventory and assess the results for significance.

There is a need to develop special disposal mechanisms for radioactive materials and identify the main users. The legal framework to empower the government to register all major users of radioactive materials is not available. There is therefore need to formulate a general Radioactive Materials Act to control and regulate: processing and occupational health; storage; transport; classification and identification of nuclides; volume and disposal management; import and export; and user legislation and licensing

Swaziland needs to establish a networking system with other countries within the African Region and overseas. This will allow access to valuable data and information in radioactive waste management.

2.3 Strengthening the Role of Major Groups

Governments agreed to a great number of objectives, policies and mechanisms in Agenda 21, but it will take the commitment and genuine involvement of all groups in society to make these goals a reality. Broad public participation in policy development, combined with greater accountability, is essential to achieving sustainable development. Individuals, groups and organizations need to know about and participate in environment and development decisions, particularly those which can affect their communities. For people to make informed decisions, national governments should give them access to all relevant information on environment and development issues. This includes information on products and activities that have or are likely to have a significant impact on the environment, and information on environmental protection measures.

2.3.1 Global action for women towards sustainable and equitable development

Advocates for the greater participation by women in ecosystem management and to increase the proportion of women decision makers in all spheres of development and governance, and

the formulation of clear policies and national guidelines, strategies and plans for the achievement of equality in all aspects of society, including the promotion of women's literacy, education, training, nutrition and health. The chapter also calls upon parties to adopt, strengthen and enforce legislation prohibiting violence against women and to take all necessary administrative, social and educational measures to eliminate violence against women in all its forms.

Gender roles in Swaziland are very clearly defined, with men being the decision-makers and authority figures and women being the home-makers and care-givers. As in most societies, women are still valued less than men. They have limited access to higher education, positions of authority, narrower choices of employment, and lower earnings than men. In addition, they have to reconcile the demands of work outside the home with their traditional roles. Generally, they are not brought into decision-making activities at home, within the community, or at national levels. Thus, women, who head about a third of rural households and who are the main users of natural resources, are not part of the management of these resources.

Women have considerable knowledge and experience in managing and conserving natural resources. However, the role of women in achieving sustainable development has been limited by such barriers as discrimination and lack of access to schooling, and equal employment.

2.3.1.1 Achievements

Government established the Swaziland Committee on Gender and Women's Affairs (SCOGWA). This committee is comprised of the key government ministries, NGOs, the private sector and civil society. The main purpose of SCOGWA is to create a forum where all major stakeholders are able to come together and formulate policies and programmes to be incorporated into national action plans that will promote the status of women. It is expected that these programmes will go a long way in addressing the problems affecting women in terms of the law and their participation in decision making and ensuring gender equality in all spheres of life.

Government has established a Gender Unit, which is headed by the National Gender Coordinator. The purpose is to put into place a gender policy and ensure gender mainstreaming in development planning and in all government activities, programmes and policies so that these are streamlined to be gender sensitive. The Gender Unit is drafting a Gender Policy.

Swaziland has acceded to the Convention on the Elimination of All Forms of Discrimination against Women and has signed and ratified the Convention on the Political Rights of Women.

At the Fourth World Conference on Women, held in Beijing in 1995, the Beijing Declaration was signed, committing the governments of the world to action for equality, development, and peace. Swaziland is a signatory of that Declaration, and significant progress has since been achieved in the country, through the efforts of the Swaziland Committee of Gender and Women's Affairs (SCOGWA), and through the NDS process, in identifying the critical issues and areas of action (including participation in the management of natural resources).

The NGO community, and civil society in general, has made some progress in advancing issues related to gender equality and equity both in terms of programming their activities and in advocacy for policy reforms and sensitisation on issues related to gender inequalities. At the forefront of these are the Women in Law in Southern Africa (WILSA) which deals mainly with research on issues related to law; others include the Umtapo Women's Resource Centre, Council of Swaziland Churches and Lutheran Development Services.

2.3.1.2 Priorities and future options

The greatest priority is to improve the position and role of women in the developmental processes of the country. The importance of women for natural resource use and management is largely neglected despite them being the primary users and collectors.

A formalised policy for women and development is needed to strengthen their standing and importance with Swaziland developmental processes.

Government needs to develop strategies to eliminate the constitutional, legal, administrative, cultural, behavioural, social and economic obstacles to women's full participation in sustainable development and public life.

The country needs to increase the proportion of women decision makers, planners, scientists, technical advisers, managers and extension workers in environment and development fields.

Additional effort is required to eliminate female illiteracy, assure girls of universal access to primary and secondary education, and provide increased post-secondary training for women in sciences and technology.

Although there are some programmes which address maternal health, most other gender problems such as ageism and the feminisation of poverty remain unanswered. Swaziland should develop a social security system to deal with the aged and socially deprived children in the country. In order to achieve the Ministry of Health's programme of "Health for All" serious efforts are needed to upgrade as well as opening up new clinics in rural areas with the support by relevant government institutions and NGOs.

Serious attention needs to be given to the health and nutrition of women and children in order to decrease maternal deaths and nutritional related diseases. Family planning needs to be encouraged among Swazi men not only for population control but also to help improve the health of the women.

2.3.2 Children and youth in sustainable development

Attempts to develop a greater role for youth and their representative agencies in planning and resource management at all levels.

Youth make up nearly one-third of the world's population, and they need a voice in determining their own future. Their active role in the protection of the environment and development is critical to the long-term success of Agenda 21. Development plans should ensure young people of a secure future, including a healthy environment, improved living standards, education and jobs. Education levels should be increased so that by the year 2002, more than half the young men and women in every country will have a chance of secondary schooling or vocational training. Students should be taught about the environment and sustainable development throughout their schooling. Children make up nearly half the population in many developing countries. In both developing and industrialized countries, children are highly vulnerable to the effects of environmental degradation. Countries should combat human rights abuses against youth, especially young women and girls, and see that their children are healthy, adequately fed, educated and protected from pollution and toxic substances. Development strategies should deal with the entitlement of young people to natural resources.

2.3.2.1 Achievements

2.3.2.1.1 Universal access and completion of primary education

Swaziland subscribes to the fundamental element of the Universal Declaration of Human Rights that "everyone has a right to education", an element which is expatiated upon in the World Declaration on Education for All". Government therefore accords great importance to human resource development as a key macro strategy. The Government policy on education as embodied in the National Development Plan emphasises the importance of functional literacy and numeracy skills.

Swaziland has made good progress towards achieving universal access to basic primary education despite the increasing numbers of children under the age of five. However, the proportion of children completing primary education is on the decline. The completion rate is 60%, 13% of girls repeated in 1997 and 18% of boys repeated in the same year.

On average, it takes 11 years for a child to make it through a 7-year primary education cycle. This places unnecessary economic burdens not only upon the system in general, but also upon the parents - the majority of whom are classified as poor, and are beginning to question the returns they are receiving from their investments in the education of their children.

2.3.2.1.2 Policy developments

Within the Government, the Ministry of Home Affairs co-ordinates the National Youth Policy of Swaziland in cooperation with other youth-serving ministries and youth organizations, especially in partnership with the Swaziland National Youth Council (SNYC), the major non-governmental youth coordinating body. All citizens are eligible to vote once they reach the age of 21. The government recognizes the rights of national youth movements to organize on a non-governmental basis for non-political purposes. The National Youth Policy is still awaiting ratification by the Cabinet. A National Programme of Action for Youth of Swaziland was formally adopted in November 1992.

2.3.2.1.3 International cooperation

Of 15 major international legal instruments adopted by intergovernmental bodies of the United Nations system relating to the human rights of youth, the government of Swaziland has ratified or acceded to the following two: Night Work of Young Persons: Industry (ILO/1948); and Convention Against Discrimination in Education (UNESCO/1960). The international goals for Youth and Development in the 1990s were adopted by Swaziland at the World Summit for Youth in 1990.

Swaziland signed and has ratified the Convention in the Rights of the Child and in 1992 produced the "National Programme of Action for the Children of Swaziland 1993-2000." This document addresses most articles of the convention either directly or indirectly. Swaziland signed the African Charter on the Rights and Welfare in July 1992.

The Boy Scout and Girl Guide movement in the country attempts to foster through their own activities a sense of environmental awareness and responsibility.

2.3.2.2 *Priorities and future options*

Swaziland must continue to ensure the protection of children and adopt policies and international conventions for their protection and advancement.

Specifically priority is needed to implement the commitments made in the signed conventions and the updating of national legislation that relate to children. There are thirteen statutes which have a bearing on child rights and protection, and while covering many aspects of the convention are deficient in certain respects. For example, whipping is prescribed as a punishment in the Criminal Procedure and Evidence Act (article 40 of the Convention), and the Adoption Act is deficient in terms of article 21 in terms of regulating inter-country and inter-nationality adoption.

Moreover, there is no statutory provision in Swaziland against the sexual abuse of boys. Cultural attitudes toward children also needs to be modernised to be fully compliant with international obligations and norms. For example, according to customary law, a husband does not have to offer a home to his wife's children from other men is contrary to articles 2, 18 and 27 of the convention, and that the custom of the father 'buying' an illegitimate child from the mother with or without her consent can be traumatic.

2.3.3 Recognizing and strengthening the role of indigenous people and their communities

Recognises the special relationship between many indigenous communities and their environments. It primarily focuses on the need for adequate community access, participation, consultation and empowerment in the formulation and implementation of land use and resource management and development.

As a unified nation the issue of role of indigenous people and their communities is not relevant.

2.3.4 Strengthening the role of non-governmental organizations: partners for sustainable development

Highlights the vital role of NGOs in providing a focus for community involvement, program design, delivery, community education and social cohesion - in sustainable development activities.

2.3.4.1 Achievements

Non-governmental organisations play a vital role in the shaping and implementation of participatory democracy. Their credibility lies in the responsible and constructive role they play in society. Formal and informal organisations, as well as grass-roots movements, should be recognized as key partners in the implementation of Agenda 21. The nature of the independent role played by non-governmental organisations within a society calls for real participation; therefore, independence is a major attribute of non-governmental organisations and is the precondition of real participation.

There are over 100 NGOs registered in Swaziland serving a diverse range of communities and carrying out a range of activities. NGO activities cover training, environmental education, women's issues, agricultural development, religious issues and animal welfare. Over 1500 individuals serve the NGO sector in various capacities.

Government recognises non-governmental organisations (NGOs) as partners in development and appreciates the contributions they make in the overall economic and development of the country. They play a vital role in areas such as health care, education, environmental protection, fighting the spread of HIV/AIDS, and in poverty reduction. The close proximity of NGOs to society has enabled them to explore new areas of delivery and alternative means of service delivery. They are sometimes more flexible and can respond with greater efficiency to emergencies than larger more formal institutions.

Whereas Government has given subvention to NGOs, such subventions have been effected in an ad hoc manner without policy guidelines and without Government imposing reporting, monitoring and evaluation requirements on them. The absence of a mechanism for co-ordination of subverted activities has often compromised accountability and transparency in NGOs and bred suspicion and mistrust between Government and NGOs. The lack of clear definition of NGO and proper guidelines governing registration of NGOs has led to a loss in the credibility of the NGO sector in the public domain and confusion amongst NGOs on how they can be officially recognised by Government.

This policy seeks to put in place a definition of a NGO and a mechanism for a systematic approach for their registration in the country. It also establishes criteria for subvention of NGOs, procedures for application of subvention and means of monitoring subverted NGO programmes and activities on the basis of accountability, transparency, mutual respect and trust. This policy formalise the relationship between Government and NGOs and give a forum, through which NGOs and Government can communicate.

A draft National Policy on NGOs was drafted in 2002 and circulated among stakeholders for comment. At the time of writing the policy was in its second draft with the policy receiving broad support from both NGOs and government.

Continued commitment to Swazi society particularly those of the fringes of society through provision of a range of services and activities.

2.3.4.2 Priorities and future options

The greatest challenge facing NGOs is that of poverty alleviation in an environment of decreasing donor support and increasing poverty.

2.3.5 Local authorities' initiatives in support of Agenda 21

Stresses the pivotal role of local government as regional environmental planners in working toward sustainable development and urges each council to develop its own Local Agenda 21.

Many of the problems and solutions listed in Agenda 21 have their roots in local activities, so local authorities have a key role to play in making sustainable development happen. Local authorities, such as municipal governments, build and maintain such structures as drinking water systems and roads. They oversee the planning of housing and industrial development, set local environmental policies and help to implement national environmental policies. As the level of government closest to the people, they play a vital role in educating and mobilizing the public around sustainable development.

2.3.5.1 Achievements

Local authorities in Swaziland have not specifically addressed Agenda 21 issues in their overall planning, however, the Mbabane City Council has, if unwittingly, undertaken various activities that meet Agenda 21 objectives.

2.3.5.1.1 Participation

Local authorities are key stakeholders for many cross sectoral policy formulation initiatives. They have been represented on almost all policy formulation processes.

2.3.5.1.2 Water supply

The City Council of Mbabane has a policy that all building development within the 40% formal areas of the city which have been subdivided into plots must have access to clean water supply. Usually the Swaziland Water Services Corporation supplies this water in all urban areas.

However, for those areas in the city that have not been cut into formal plots (informal areas), the Council has a policy which requires that the residents of the those apply to the Council for assistance to have a clean water supply. The Council has a fund for assisting the residents in this respect. This a revolving fund which the residents have to pay back. They either develop their local water supply source using this fund or the approach the Water Services Corporation to supply them from their mains which is nearest to them.

2.3.5.1.3 Management of solid waste

Mbabane constructed a modern sanitary landfill to cater for the waste streams generated by the city. The local authority does not collect the solid waste from all the residents because some of the areas are inaccessible by a vehicle. Some residents bury or burn the waste.

Recycling of waste is a priority of the Mbabane City Council and the council has initiated several recycling schemes with the urban area with private sector support.

2.3.5.2 Priorities and future options

Although late, it is important for all local authorities to prepare "a local Agenda 21" for their served communities. Local officials should consult citizens and community, business and industrial organizations to gather information and build a consensus on sustainable development strategies. This consensus would help them reshape local programmes, policies, laws and regulations to achieve Agenda 21 objectives. The process of consultation would increase people's awareness of sustainable development issues.

2.3.6 Strengthening the role of workers and their trade unions

Points out the role that unions and workers need to embrace in order to develop cleaner production practices, safe work practices and full employment.

Workers will be among those most affected by the changes needed to achieve sustainable development. Trade unions, which have experience in dealing with industrial change, have a vital role to play in achieving sustainable development.

2.3.6.1 *Achievements*

Despite low general awareness by unskilled workers on their rights and environmental risks, some progress has been made in improving this.

NGO activity in raising awareness among society, that by default includes workers, about environmental issues, risks and health has been ongoing since Rio.

Government has gazetted an Occupational Health and Safety Act, 2001 that provides some environmental protection within the workplace. Greater effort is needed to raise general levels of awareness about this act and its provision among workers and trade unions.

The existing network of collaboration among trade unions and their extensive membership provide important channels through which the concepts and practices of sustainable development can be supported. The established principles of tripartism provide a basis for strengthened collaboration between workers and their representatives, Governments and employers in the implementation of sustainable development.

2.3.6.2 *Priorities and future options*

Involvement in the full range of issues relating to sustainable development and improvement of workers environmental rights.

Government, business and industry should foster the active and informed participation of workers and trade unions in shaping and implementing environment and development strategies at both the national and international levels. These strategies will affect employment policies, industrial strategies, labour adjustment programmes and technology transfers.

Groups involving workers, employers and government should be set up to deal with safety, health, environmental awareness and sustainable development. Unions and employers should design joint environmental policies, and set priorities to improve the working environment and the overall environmental performance of business. There is need for more worker education and training, both in occupational health and safety and in skills for sustainable livelihoods.

Increase the provision of workers' education, training and retraining, particularly in the area of occupational health and safety and environment.

2.3.7 Strengthening the role of business and industry

Provides a rationale for how responsible entrepreneurship is vital for developing effective strategies for achieving balanced development and environmental protection.

Business and industry, including transnational corporations, play a crucial role in the social and economic development of Swaziland. A stable policy regime enables and encourages business and industry to operate responsibly and efficiently and to implement longer-term policies. Increasing prosperity, a major goal of the development process, is contributed primarily by the activities of business and industry. Business enterprises, large and small, formal and informal, provide major trading, employment and livelihood opportunities. Business opportunities available to women are contributing towards their professional development, strengthening their economic role and transforming social systems. Business and industry, including transnational corporations, and their representative organizations

should be full participants in the implementation and evaluation of activities related to Agenda 21.

2.3.7.1 Achievements

Responsible entrepreneurship can play a major role in improving the efficiency of resource use, minimizing wastes and protecting human health and environmental quality. Some enlightened business leaders are already implementing product stewardship in the management and use of resources. They are fostering openness and dialogue with employees and the public and are carrying out environmental audits and assessments of compliance with environmental laws and regulations. They are taking voluntary measures to see that their activities have minimal impact on human health and the environment.

For the larger companies, namely the sugar estates and some multi-national companies, implementation of codes of conduct promoting the best environmental practice have been introduced. The same companies have undertaken various programmes for improved environmental awareness and responsibility at all levels of the work force.

The implementation of ISO environmental standards among some manufacturing entities has taken place. This is more a result from international concern over the environmental impact of certain industries and the desire by consumers to purchase goods that are produced in a sustainable manner. The sugar industry is a particular case in point with economically important markets in Europe and the United States.

There has been limited activities on the incorporation of cleaner production policies in company operations though a few of the multi-nationals have begun to acknowledge the importance of such policies and are in the process of identifying the best practicable route for such to happen.

Government has to a limited extent, encouraged the establishment of venture capital funds for sustainable development projects and programmes. Several companies have developed policies to assist their work force outside of the work environment. Housing schemes where by companies provide support to application for housing are growing. Retirement and death benefits are common among the larger companies.

2.3.7.2 Priorities and future options

Raise awareness of Agenda 21 issues among business and industry and strive for improved consumption and disposal of waste and cleaner production.

Methodologies and or strategies need to be developed to improve the efficiency of use of natural resources including water and raw materials.

The majority of Swaziland's industry and business do not report annually on their environmental records, or their use of energy and natural resources. This will change when the draft Environmental Management Bill is enacted.

2.3.8 Scientific and technological community

Primarily pushes for improving communications channels between the scientific and technical community and the public as well as improving ways in which governments seek and receive scientific advice.

It is important that everyone, from policy makers to the general public understand the roles that science and technology have to play in achieving environmental protection and human development. Better communication is needed, so that policy makers can get access to the best available knowledge to help them develop strategies for sustainable development. Greater dialogue would help scientists and technologists set research priorities and propose solutions for pressing problems. There is also a need for better communication between scientists and the public, so that policies will respond to public concerns.

2.3.8.1 Achievements

The scientific and technological community within Swaziland are active participants in many nation policy formulation strategies and as such are able to critically assess and analyse the impacts of and need for particular strategies.

2.3.8.2 Priorities and future options

Improve the dissemination of scientific results.

2.3.9 Strengthening the role of farmers

Recognises the cogent role of farmers and rural communities as managers and custodians of natural resources and asserts the importance of their involvement in developing regional policies and programs.

Rural activities take place in close contact with nature, adding value to it by producing renewable resources, while at the same time becoming vulnerable to overexploitation and improper management.

The rural household, including women, have been the stewards of much of Swaziland's natural resources for many years. Indigenous knowledge on the management and use of these resources have allowed these communities to survive, but the increasing level of environmental degradation, combined with the impact of HIV/AIDS on these communities, is placing ever increasing strains on their ability to manage these resources.

The natural resources that sustain farming activities need proper management, and there is a growing concern about the sustainability of agricultural production systems.

A farmer-centred approach is the key to the attainment of sustainability and many of the programme areas in Agenda 21 address this.

2.3.9.1 Achievements

In recent years, sugarcane production on SNL has increased dramatically as a result of a change in legislation regulating the sugar industry coupled with the construction of the Maguga Dam which can supply close to 15,000 ha of good quality SNL. Sugarcane, as an irrigated crop, can withstand climatic fluctuations and so is more dependable and has a ready export market.

Governments overall goals for agriculture is self-sufficiency in maize production, expansion of fruit and vegetable production as a means for increasing rural income and improving nutrition and encouraging cash crop production amongst small-scale farmers.

Government has embarked on numerous programmes to meet the above mentioned goals – over 20 small earth dams have been constructed throughout the country to supply water for domestic, livestock and small-scale irrigation. Large-scale irrigation projects are viewed as a viable poverty alleviation strategy by government. Two projects are currently being implemented and or planned. The waters from the recently constructed Maguga Dam are feeding 7,000 ha of SNL where local people, formed into farmer associations, have been given the technical and business skills needed for growing sugarcane. Another project currently in the planning phase is the Lower Usutu Smallholder Irrigation project located in the centre of the country. The direct beneficiaries will be approximately 3,300 farm households or about 30,000 people. While employment amounting to 5,300 man-years will be created during implementation, some 5,600 jobs will be produced after full development.

2.3.9.2 Priorities and future options

The government and her institutions will have to concentrate on:

- Identifying and introducing high yielding, drought resistant and disease tolerant seed varieties, particularly for maize to improve food security and productivity.

- Further training of farmers and extension personnel is urgently needed to cope with an ever changing commercial environment and to equip farmers with improved land husbandry techniques that are needed as a result of climate change and increasing drought occurrences.
- Encouragement among rural farmers on the need for a diversification in crops better suited to a changing climate – particularly sorghum and legumes.
- An agriculture policy that embraces the full range of existing concerns, threats and opportunities is urgently needed.
- Improved environmental management of lands used by farmers is needed. Land degradation, principally among farmer on SNL, is negatively impacting upon their productivity.
- Improved access to development and micro-finance to facilitate greater investment in technologies, equipment and management is urgently needed by the predominantly poor rural farmer.
- Greater consultation among farmers on policies that will directly affect, e.g. forest and energy policies.

2.4 Means of Implementation

2.4.1 Financial resources and mechanisms

Advocates for ways and means of providing new and additional financial resources, particularly to developing countries, for environmentally sound development programmes and projects in accordance with national development objectives.

Economic growth, social development and poverty eradication are the first and overriding priorities in developing countries and are themselves essential to meeting national and global sustainability objectives. In the light of the global benefits to be realized by the implementation of Agenda 21 as a whole, the provision to developing countries of effective means, inter alia, financial resources and technology, without which it will be difficult for them to fully implement their commitments, will serve the common interests of developed and developing countries and of humankind in general, including future generations.

Very large investments are needed to implement the huge sustainable development programmes of Agenda 21 to which the world's nations committed themselves at Rio de Janeiro. Although most of the funding is to come from a country's own public and private sectors, many developing countries lack the resources and technology to deal with basic development issues and such major international problems as climate change and protecting biological diversity. Developing countries need to stimulate economic growth and social development and to eradicate poverty. These are essential conditions for global sustainability. Providing developing countries with adequate resources will serve the common interests of all nations and of future generations. The cost of inaction is likely to outweigh the financial costs of implementing Agenda 21.

2.4.1.1 Achievements

Swaziland has been an active member of all relevant UN agencies and has voiced the country's concerns and needs through these for a to ensure a fair and equitable proportion of available finance is made available to Swaziland for important development projects and initiatives.

To better manage the development assistance, an External Aid Policy has been developed by the MEPD.

Swaziland has secured numerous lines of developmental assistance available from financial institutions and donors and has entered into several key bilateral arrangements with donors

and countries. Cooperation agreements between the Republic of Taiwan and European Union are good examples of this cooperation.

2.4.2 Support of and promotion of access to and transfer of technology

Defines the conditions under which environmentally sound technologies should be transferred between countries for the benefit of the global environment. To this end, there is particular emphasis on integrated information, access and technological transfer programs.

Environmentally sound technologies protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than the technologies for which they were substitutes.

2.4.2.1 *Achievements*

Several programmes and projects have been launched and these include implementation of international conventions – (UNFCCC, CBD, CCD). In the implementation of these conventions various scientific and technological skills and technologies have been required and have to some extent been provided for through institutional and capacity building support.

2.4.2.2 *Priorities and future options*

Donor agencies, NGOs and the private sector have contributed in various ways towards the transferring environmentally friendly and sustainable technologies. This must continue.

2.4.3 Science for sustainable development

Discusses the role of science in sustainable development, including improved modelling, research programs, new partnerships and data collation.

This chapter focuses on the role and the use of the sciences in supporting the prudent management of the environment and development for the daily survival and future development of humanity. The programme areas proposed herein are intended to be over-arching, in order to support the specific scientific requirements identified in the other Agenda 21 chapters. One role of the sciences should be to provide information to better enable formulation and selection of environment and development policies in the decision-making process. In order to fulfil this requirement, it will be essential to enhance scientific understanding, improve long-term scientific assessments, strengthen scientific capacities in all countries and ensure that the sciences are responsive to emerging needs.

2.4.3.1 *Achievements*

At the policy level, Swaziland has demonstrated in the last 10 years that it recognized the role of science in its socio-economic development. Chapter 4 of the NDS describes the development of scientific capacity in the country:

- Support ways to strengthen science and technology education at all levels and its continual upgrading in line with developments in science and technology.
- Encourage short courses on specific areas of science and technology as a form of continuing education for all science and technology personnel.
- Encourage the development of post-graduate work in science and technology policy research.
- Promote education research in order to assess short-term and long-term national educational needs.

Where technology transfers from abroad are made, the possibility of adapting that technology to suit local conditions must be investigated. Conversely, if the required research capability threshold has been reached, locally based research results can find applications abroad.

The University of Swaziland have programmes in support of preparing more science teachers for secondary schools.

2.4.3.2 Priorities and future options

The greatest priority is to implement the provisions on science and technology described in the NDS and make available finance and skills training in areas that are of great national importance.

Greater effort is needed to focus research activities at the main research centres in the country. Cooperation with the private sector must be explored and criteria developed to encourage co-research. Already the Swaziland Sugar Association carries out research on improving and or adapting sugarcane varieties in the country with some cooperation with national institutions.

2.4.4 Promoting education, public awareness and training

Advocates the reorienting education towards sustainable development; increasing public awareness and promoting training.

Agenda 21 begins its Chapter on Education, Public Awareness and Training by describing Education as the social institution entrusted with the main responsibility for passing on to succeeding generations the wisdom, knowledge and experience gained from the past. It states that "Education is perhaps the single most important influence in changing human attitudes and behaviour, promoting economic growth and raising the quality of life, providing the knowledge and skills that produce jobs and increase productivity. It equips people for meeting contemporary needs." Thus, great importance is given in Agenda 21 to incorporating sustainable development concepts into all levels of education, from basic to tertiary, and for all groups of society.

In adopting Agenda 21 at UNCED, Swaziland committed itself to promoting the incorporation of sustainable development concepts into both formal and non formal education. Some significant gains have been achieved in this area.

2.4.4.1 Achievements

The following overview of Education, Public Awareness and Training in Swaziland is presented under the three major priorities set out under Agenda 21:

2.4.4.1.1 Reorient education towards sustainable development

Swaziland took its first major steps to integrate environment into the formal school curriculum in the 80s, under a USAID-funded project to develop a national curriculum for Grades 1 to 7. Under Agenda 21, curriculum revisions have given considerations to environment, but this has been piecemeal, subject by subject, not in a holistic manner. Thus, there are environmental elements in some of the primary school subjects, specially Science, Home Economics, Agriculture and Practical Arts. A separate course called "Development Studies" was designed for Grades 7 and 8 (junior certificate level). This course provides a broader interpretation of the environment, which includes its economic, social and cultural dimensions. At secondary level, Swaziland has been following external examination systems (e.g. Cambridge and AEB London). There are some elements of environment in some of the courses, e.g. Geography and Agriculture.

At the University of Swaziland, the Geography and Environmental Studies Department offers a specific course in Environmental Studies. The Biological Sciences Department is developing a Masters Programme on Natural Resources Management.

The Teacher Training Colleges have also integrated environment into some of their existing courses during curriculum revision phases.

Since the Earth Summit, Yonge Nawe, an NGO formed primarily to promote the establishment and operation of school conservation clubs, has expanded its functions to

include advocacy and the formation of some adult conservation groups. It has become an important environmental NGO which has contributed significantly to non formal environmental education and public participation . Increasingly, other NGOs are involved in non-formal environmental education. These include Big Game Parks, Emanti Esive, Swaziland Farmers Development Foundation. Also religious organizations are promoting environmental education as part of their development activities. These include the Council of Churches, the Baha'i Community, and the Lutheran Foundation.

In the spirit of Agenda 21, environmental education has been given an important place in the Swaziland Environment Action Plan. It is one of five major programme areas of the Action Plan. A National Environmental Education, Public Awareness and Participation Implementation Committee, composed of the major formal and non formal environmental education stakeholders, was appointed, and is assisting the Swaziland Environment Authority to implement environmental education activities specified in the Action Plan.

2.4.4.1.2 Promotion of public awareness

In the 90s, the "Clean and Beautiful Swaziland" Forum, one of the earliest efforts to raise public awareness and mobilize the public to take action against littering and pollution, was very active. It initiated the recycling of cans and glass, and provided a forum for initial discussions for regulations against littering and management of solid waste.

The National Environmental Education Programme (NEEP), under the aegis of the Swaziland National Trust Commission, developed two interpretation centres at Malolotja and at Mlawula game reserves. These provide interpretation and environmental education primarily for school children who visit the reserves. They also provide some outreach for schools and communities. Mlilwane game reserve also has an interpretation centre and program for visiting schools.

The Environmental Education, Public Awareness and Participation Programme Implementation Committee of the Swaziland Environment Action Plan has mobilized resources and catalysed the systematic commemoration of special environment days, e.g. World Environment Day, World Meteorological Day, and Clean Up the World Day, which is being observed in Swaziland for a whole week of activities throughout the country.

In the year 2000, Swaziland hosted the Annual Conference of the Environmental Education Association of Southern Africa, with roughly 600 environmental educators coming from the SADAC region and some international guests and speakers coming from overseas. This event was given wide media coverage and helped to focus the public's attention on environmental issues for the duration of the 4 day conference.

The involvement of media people as members of committees working on the Swaziland Environment Action Plan, helped to increase interest by the media in environmental issues. The leading newspaper in the country has continuously given space to highlight environmental issues. Radio programs on environmental topics, have been building public environmental awareness over a period of years.

2.4.4.1.3 Promote training to develop human resources to facilitate the transition to a more sustainable world

In the early 90s, NEEP received assistance from Peace Corps. Technical and financial support was provided to establish an Environmental Education Centre in Lobamba, to train NEEP personnel, and to develop materials. In addition, NEEP, Yonge Nawe and the Ministry of Education have organized environmental education workshops, sponsored by donor partners, such as UNESCO and DANCED for teachers, teacher trainers and inspectors.

The participatory approach used in the development of Swaziland's Environment Action Plan (1997) is a good example of building capacity through active involvement of all sectors of society. The formation and involvement of nine technical committees and three cross-sectoral committees, plus consultations with different focus groups and participants at workshops in

all the regions, involved a wide range of people in investigation and discussion of the country's main environmental problems, issues, legislation, policies. The result was the development of human resources which are now being used in the implementation of the priority environmental activities which they identified.

The development of a Strategy and Action Plan for Environmental Education was identified by the Swaziland Environment Action Plan (SEAP) as one of the top ten priority activities the Environmental Education, Public Awareness and Participation area.

In 1998, the Environmental Education, Public Awareness and Participation (EEPAP) Implementation Committee, with assistance from the United Kingdom's Department for International Development (DFID), through SEA, undertook the process of developing this Strategy.

The Strategy recommends a comprehensive approach to EE that recognizes four different but interlinked areas. They are:

- Schools and Colleges
- Community
- Public Awareness, Research, Information and Technical Messages
- Environmental Education and Resource Centres

The EE Strategy document recommends addressing these four areas by officially forming a sub-program committee for each area, which will be empowered to draw up action plans and prepare project proposals for submission to the Environmental Education, Public Awareness and Participation Implementation Committee.

2.4.4.2 Priorities and future options

The Swaziland Environment Support Programme was developed by the Swaziland Environment Authority in 2001, to assess progress of the implementation of the SEAP and to recommend strategies and projects to complete its implementation in the future. With regards to this area of Environmental Education and Public Participation, the following suggestions are made:

An outstanding priority of the SEAP and its consequent Environmental Education Strategy is the integration of environment into all levels of the formal education system. To this effect, consultation has taken place with the relevant institutions and authorities with regards to a project which will initiate the integration of environment into the education system (in a holistic, systematic manner). A proposal for integration into the primary education curriculum is being formulated.

In addition, initial conferences between SEA and the University of Swaziland (UNISWA) have begun to spark off action towards the identification of an approach which will ensure a systematic integration of environment at university level. There exists a rich environmental research potential which also needs to be developed at UNISWA.

At secondary level, it seems appropriate to begin with short courses for teachers which could be provided through UNISWA with limited financial assistance from a donor partner.

Because of changes of personnel in institutions and organizations, the membership of this Program Area Implementation Committee needs to be reviewed and strengthened. It is then important to consider the formation of the sub-program committees recommended in the EE Strategy Document so as to continue to implement specific activities and projects

Attention also needs to be given to revitalizing NEEP so that it fully plays its role at national level.

2.4.5 National mechanisms and international cooperation for capacity-building in developing countries

2.4.5.1 *Agenda 21 objectives*

The overall objectives of endogenous capacity-building in this programme area are to develop and improve national and related sub-regional and regional capacities and capabilities for sustainable development, with the involvement of the non-governmental sectors.

Capacity 21's mission in Swaziland is to develop and implement the SEAP.

SEAP includes an extensive analysis of the country's environmental problems, an action plan, an implementation strategy, a monitoring and evaluation plan, and a recommended policy and strategy framework.

2.4.5.2 *Achievements*

Capacity 21's biggest contribution has been in raising public awareness of environmental issues and promoting participation by all sectors of society. Previously in Swaziland, environmental issues were not discussed. Now, all sections of the local media report on environmental stories.

A Programme Implementation Committee (PIC) co-ordinator has recently been hired to initiate the implementation strategy, which seeks to prioritise environmental issues identified by the SEAP process and to select a number of priority actions to be undertaken over the next five years. These issues are organised under five broad programme areas:

- Capacity building for effective environmental management
- Environmental education, public awareness and participation
- Management and the use of biodiversity
- Resource Management for increased productivity
- Waste management, pollution control and environmental health

Cross-sectoral PICs - comprising government ministries, NGOs and the private sector - have been formed to steer each programme area. All PICs are now operational, and some have begun to implement required activities.

The preparation of the SEAP has brought together people from diverse professions, experiences and sectors to recommend solutions to the country's environmental problems. These include the ongoing tree planting in Mankayane (to combat erosion) and World Environment Day celebrations; a well-attended function at Sithobelweni to combat land degradation (attended by all levels of society, from the prime minister to primary school children); and Pigg's Peak celebrations to welcome the new century with an environmental theme.

The PICs' commitment to the environment has shown that given proper organisation and a clearly articulated vision, large financial resources are not necessary to achieve targets. However, PIC activities have exposed the lack of environmental information in the country. The country does not have a uniform structure for bio-waste disposal, and is yet to establish a biodiversity data unit. Finally, the lack of a legal instrument to establish the SEAP committees has resulted in "teething" problems.

2.4.5.3 *Priorities and future options*

The SEAP identified key environmental issues. Thereafter the Programme Support Document followed to support a strong and participatory institutional framework and training programme to increase the capacity and skills of various stakeholders. It is important that the recommendations made with this document are implemented.

2.4.6 International institutional arrangements

A large responsibility for following up on the Rio recommendation rests with the General Assembly of the United Nations, where all member countries have policy making and other responsibilities to fulfil. The continued active and effective participation of non-governmental organizations, the scientific community and the private sector, as well as of local groups and communities, is important in the implementation of Agenda 21.

2.4.6.1 *Achievements*

As an active participant to the UNCED and a signatory to several conventions and protocols, Swaziland has taken seriously the commitment to reverse environmental degradation and has since taken several important strides towards achieving this objective. These include the following: the preparation of the Swaziland Environmental Action Plan (SEAP) 1997; the drafting of a National Environmental Policy (NEP) and Environmental Management Act (EMA) in 2002, the Environmental Impact Assessment regulations in 1996; an environmental education and communication strategy (NEEP) in 1998; and the establishment of the Environmental Education, Public Awareness and Participation Implementation Committee, in 1998 to name the most important achievements.

The country has maintained a constant and valuable relationship with various organs of the UN system and participates at an international level with many of these.

2.4.6.2 *Priorities and future options*

It will be important that the country continues to lobby for its own developmental objectives within the UN system and other international for a in order to acquire the financial and technical assistance is urgently needs to tackle the constraints in the implementation of Agenda 21.

2.4.7 International legal instruments and mechanisms

Explores avenues for improvements in the effectiveness of existing and future international law on environment and development, including such issues as consistency of obligations under different instrumentalities and developing country participation.

International law on sustainable development needs to be developed in ways that observe the delicate balance between the needs for development and for environmental protection. Current international environmental laws should be reviewed and developed to make them more effective. International laws should also promote the integration of environment and development policies. Conflicts between environmental and social or economic agreements should be identified and resolved.

2.4.7.1 *Achievements*

Swaziland's environment is part of the global environment and its people are part of a wider regional community - represented primarily by the Southern African Development Community (SADC) - and of the global community. Consequently the country also embraces its regional and global environmental responsibilities arising from regional and international agreements and declarations to which Swaziland is a party.

Swaziland participated in the Earth Summit in Rio de Janeiro in 1992 and consequently subscribed to the 27 principles of the Rio Declaration on Environment and Development, 1992 and Agenda 21.

Swaziland has undertaken to sign several internationally important agreements or conventions that support her overall developmental objective as well as to support her international obligations to sustainable development.

The following international agreements, conventions and protocols have been signed or ratified by Swaziland since Rio:

Conventions, Treaties & Protocols	Date	Date signed	Date ratified
International Treaty on Plant Genetic Resources for Food and Agriculture	3 Nov 2001	10 June 2002	not ratified
The Kyoto Protocol	11 Dec 1997	Signed	ratified
Comprehensive Nuclear-Test-Ban Treaty	10 Sept 1996	24 Sept 1996	not ratified
African Nuclear-Weapon Free Zone Treaty (Pelindaba Treaty)	11 April 1996	4 Nov 1996	not ratified
Revised SADC Protocol on Shared Watercourse Systems	-	7 Aug 2000	ratified
SADC Protocol on Shared Watercourse Systems	28 Aug 1995	28 Aug 1995	ratified
The Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wildlife (Fauna and Fauna)	8 Sept 1994	8 Sept 1994	not ratified
United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa	12 Sept 1994	27 July 1995	7 Oct 1996
Agreement on the Implementation of Part XI of the Convention on the Law of the Sea	28 July 1994	12 Oct 1994	not ratified
Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction	13 Jan 1993	23 Sept 1993	20 Nov 1996
The Chemical Weapons Convention	13 Jan 1993	23 Sept 1993	20 Nov 1996
The Rio Declaration on Environment and Development	13 June 1992	Signed	
The Convention on Biological Diversity	5 June 1992	12 June 1992	9 Nov 1994
United Nations Framework Convention on Climate Change	9 May 1992	12 June 1992	7 Oct 1996
Montreal Protocol on Substances that Deplete the Ozone Layer			10 Nov 1992

The country has undertaken Enabling Activities under the UNFCCC; SADC Biodiversity Support Program under the CBD; methyl /Bromide Project under the Vienna Convention for the protection of Ozone and carried out radio campaigns on environmental issues.

2.4.7.2 Priorities and future options

Ratify all appropriate conventions and design and implement appropriate strategies and legislation to support objectives of the agreements.

3 MAIN IMPLEMENTING CONSTRAINTS

This chapter addresses the main constraints and deficiencies that have been encountered in implementing sustainable development objectives, along with measures taken or planned to overcome such constraints or deficiencies.

In addition to some of the problems that have been cited in earlier sections, this chapter discusses the major constraints that Swaziland is facing in the implementation of sustainable development. The discussion of the constraints is not necessarily in order of priority.

3.1 Constraints on Social and Economic Dimensions

The major constraints that have been faced in the implementation of social and economic development include:

3.1.1 Financial and Human Resources Constraints

Constraints of human and financial resources availability continue to be a major problem in the country. Government often has difficulty in retaining trained personnel due to relatively low remuneration packages in Government.

Swaziland has been hit-hard by the effects of donor fatigue that has been experienced by many other developing countries. As more donors are reducing their assistance to Swaziland, the country is constrained in its ability to finance some of its sustainable development projects.

3.1.2 Weakening of government's fiscal situation

Government has been experiencing deficits for the past three to four years. The fiscal situation is also predicted to deteriorate sharply in the mid-term due to decline in South African Customs Union receipts. The Ministry of Finance is limited in its means to rectify the situation; expenditure is hard to control due to genuine social welfare needs caused by the HIV/AIDS crisis and slow pace of the restructuring of the civil service.

3.1.3 Classification of Swaziland as a Lower Middle-income Country

The classification of Swaziland as a lower middle income country means that Swaziland no longer qualifies for concessionary rates from international lending institutions such as the World Bank and African Development Bank. The country's ability to raise finance for social sector projects is limited as it may not be prudent to borrow money at commercial interest rates for social sector projects. International donors should recognize that per capita income is flawed as a criterion for concessionary finance.

3.1.4 Vulnerability to Global Shocks

Swaziland, like most small open economies, is vulnerable to global economic shocks. Factors, outside Swaziland's control such as the sharp depreciation of the South African Rand and deepening recession have had negative repercussion. The depreciation of the Rand has led to inflationary pressures and worldwide recession has led to a closure of a number of factories in the country.

3.1.5 Increasing Debt Situation

Historically, Swaziland's debt stock has been relatively small compared to other less developed countries. Therefore there has been no need to actively reduce debt. As at March 2001, Swaziland's debt stock to GDP was 27.6%. This compares to a critical ratio of 50%. Moreover debt service to exports as at March 2001 was 3.9% compared to a critical value of 25%.

However although Swaziland's debt position has been sustainable in the past, there are important considerations which indicate that Swaziland's debt situation may become increasingly unsustainable in the future. Most of the Government's debt is from international donors and demarcated in foreign currency, which means that the Government is exposed to foreign exchange rate risk. The depreciation of the Rand has thus led to an increase in Swaziland's debt burden. Government has to continue to invest in the country's infrastructure and therefore still has a need to raise finance.

The South African Customs Union receipts, which makes up about 50% of government revenue is predicted to decline sharply in the medium term. This will mean that government will find it increasingly difficult to pay huge interest payments.

3.1.6 Impact of HIV/AIDS

While public expenditure on health has been increasing, HIV/AIDS continues to pose a major challenge to socio-economic development, and health indicators are thus declining rather than improving. The 1998 in-patient survey for Swaziland indicated that women had a higher prevalence rate compared to men, i.e. 52.8 and 45.6%, respectively. The ever increasing impact of the AIDS pandemic requires a re-orientation of poverty alleviation focus to include tackling the health and economic impacts of the pandemic. Overall, AIDS has the potential to slow down economic growth significantly in the country.

Such a change in focus requires commitment from government and donors to support wide ranging initiatives to combat both AIDS as well as poverty alleviation strategies. Financial and human resources are required to tackle the pandemic and implement the Action Plan – neither of which are readily available.

3.1.7 Impacts on Education

Public education subsidies are biased in favour of tertiary levels. Post secondary and university education has hitherto been largely subsidised, yet primary education has been a responsibility of parents.

Primary education especially in rural and peri-urban areas is of poorer quality due to inadequate infrastructure such as access roads, water and sanitation, classrooms and laboratories, teachers and teachers accommodation, etc. This contributes towards the high rate of repetition and drop out which costs the parents and government a lot.

3.1.8 Distribution of Income and Opportunities

Government devotes a large proportion of its annual fiscal expenditure on education, health and other social services. However, these services are concentrated in the urban area, thus serving only about 30% of the total population. A larger proportion of the budget on education, for example, is spent on tertiary and high school education, while a lot of the poor are in rural areas and cannot even afford primary education, and therefore do not benefit much from the increased budget allocations to the education sector. The same applies to the health sector.

3.1.9 Inadequate Capacity to Implement Policies

Another major constraint has been the lack of appropriate institutional arrangements and inadequate financial resources to help implement or operationalise the policies that have been formulated and adopted. Another problem is the tendency for some policies to take relatively long periods of time to reach adoption stage, thus delaying their implementation.

3.2 Constraints for Conservation and Management of Resources for Development

In Swaziland, forest vegetation is usually found at moderate to high elevations mainly in the west of the country and in ravines of the Lubombo Mountains. At high altitudes, forest patches are interspersed amongst the grassland and play an important role in supporting

biodiversity. Effective conservation of this ecosystem is hampered by its fragmented nature. Three species of endemic plants occur in Swaziland's forests, and no known endemic animals occur.

The predominant biological resources currently utilised or potentially available from Swaziland's ecosystems are livestock fodder, traditional medicine and food, wildlife, fuel, timber, water, fisheries and many other natural products. The magnitude to which each of biological resources has been, or currently is being utilised varies, depending on land use. In protected areas exploitation of biological resources is either part of the management strategy, e.g. culling or is due to poaching (most commonly, illegal harvesting of medicinal plants and bush meat).

A major proportion of SNL is heavily utilised for livestock grazing, and there are no mechanisms in place to prevent over-grazing. There appears to be an increase in the harvesting of medicinal plants, but this has not been quantified. There is also no mechanism in place to ensure the regeneration of what is being harvested.

Another major threat to the country's ecosystems is the unsustainable harvesting of woody vegetation for timber and fuel wood. Harvesting of woody vegetation appears to be widespread increasing. Furthermore, there is no mechanism in place to ensure the regeneration of this biological resource. The selling of fuel wood along certain routes in the lowveld appears to have grown exponentially in the past years without any apparent enforcement of control measures such as the Flora Protection Act.

Two other major threats to the country's ecosystems are the continued clearing of natural vegetation for cultivation of rain-fed crops, afforestation and other exotic plantations (e.g. sugar cane). The rate of afforestation has declined in the past two decades while the rate of clearing for cultivation of exotic crops has increased. This exercise has continued unabated, despite the constraint of limited water availability.

Overgrazing and poor fire management have resulted in bush encroachment over large areas of SNL. Natural ecosystems on SNL, especially grasslands, are burnt annually in the dry season. This results in a flush of green grass at a time when the food supply of livestock is low. The effects of this bush encroachment are not fully understood, but often include a loss of biodiversity. It has been shown that areas suffering from bush encroachment support a lower diversity of birds.

The impact of alien invasive plants can be observed over much of the country, though it tends to be patchy in distribution. Amongst the worst invaders is the black wattle, *Lantana camara*, *Melia azedarach*, *Psidium guajava* and *Chromolaena odorata* have spread over large areas while the herb *Parthenium hysterophorus* is often evident in the grass layer in disturbed areas.

Some ecosystems have been lost or reduced by way of land conversions to agriculture and housing developments. Some wetlands have been degraded or destroyed as a result of the construction of roads and buildings. Soil erosion has reached critical levels in some parts of the country. Industrial pollution (mostly entering the Ushushwana River from Matsapha Industrial Area), urban waste and agricultural chemicals are further threats.

The financial market in Swaziland is not necessarily geared towards the promotion of sustainable development through appropriate management of natural resources. Efforts to encourage smallholder irrigation farmers and other small-scale income generating groups to incorporate environmental assessment studies for their activities before they may start operating is being hampered by the fact that most of the financial institutions refuse to provide funding for the components of project proposals that would not directly generate income. The institutions do not consider Environmental Impact Assessment studies as being part of the total cost of any development project.

3.2.1 Constraints on Biological Conservation

Swaziland attaches great significance to the protection and management of her biodiversity, however there are serious constraints that limit any meaningful implementation. Some of the major constraints are:

- Negative effects of rapid population growth and changing consumption patterns on biodiversity.
- Habitat destruction and fragmentation, with consequent species depletion due to increasing pressure on the environment and unsustainable use of resources.
- Insufficient plant genetic resource conservation.
- Loss of indigenous knowledge and traditional values on one hand, and unsustainable traditional practices (use of plants and animals) on the other.
- Insufficient knowledge and appreciation of indigenous ecosystems, flora and fauna, and the need for biodiversity conservation.
- Insufficient protection afforded to unique Swaziland ecosystems and plant species, e.g. cycads.
- Lack of community participation in resource management and biodiversity conservation.
- Private sector insufficiently involved in biodiversity conservation.
- Outdated, conflicting and fragmented legislation.
- Shortage of trained personnel in genetic conservation and sustainable nature reserve management.
- Lack of research priority for ecosystems and genetic resources.
- Lack of recognition for conservation action taken.

3.2.2 Constraints on Biotechnology

The greatest constraint is the lack of a formalised legislative framework for the use of biotechnology and biosafety. Without such a framework, development of the beneficial uses of biotechnology is restricted.

Specifically, the major constraints include:

- Lack of awareness on issues of biotechnology and biosafety (as well as issues relating to Intellectual Property Rights(IPR))
- Lack of human and infrastructure capacity
- Inadequate political will (many countries are setting aside budget for biotech research)
- Lack of a biotechnology policy which will guide suitable biosafety and IPR regimes
- Lack of coordination between stakeholder groups (a biotechnology committee would go some way towards solving coordination and debate on policy issues)

3.2.3 Constraints on Water and Sanitation

The provision of water and sanitation to the rural areas in particular is a complicated and costly process and faces a range of constraints including:

3.2.3.1 *Manpower*

Manpower is a constraint to all implementing and support agencies, and loss of manpower in the engineering categories threatens the capacity of these agencies to implement projects. A project to formulate a human resource development plan is proposed to establish and fill posts essential to implementing existing and expanded programmes. Other project elements are aimed at providing support for both capital projects through health education, surveillance, linkage, and coordination, and their maintenance, and for planning of future development of the sector.

3.2.3.2 Coordination

Many agencies and organisations help to provide water and sanitation in rural Swaziland. Most help communities build water systems. Sometimes two organisations have been found planning water supplies in the same community. Few can provide health education and assistance in the construction of latrines. Many need assistance to achieve an acceptable standard of design and construction. Coordination among all agencies and organisations, government and non-governmental, is needed to plan effectively for increasing coverage and to achieve linkage, adherence to standards and effective operation and maintenance.

3.2.3.3 Maintenance

Many water systems in Swaziland have failed. There are two main reasons for this: the systems were not properly designed and constructed to an acceptable standard; and no provisions were made for continued maintenance, either for minor repairs at the community level, or for major repairs beyond the capacity of the community. If resources are to be used effectively for the long-term benefit of people living in rural areas, systems must be designed and constructed to an appropriate standard; systems must be designed so that communities can operate and maintain them; communities must be prepared to accept their responsibilities for operation and maintenance. and provision must be made- for major repairs. Ultimately the communities must take over the complete maintenance burden.

3.2.3.4 Standardisation

Many water systems in Swaziland have failed because they were not properly designed or constructed to a suitable standard. Repairs may be difficult or expensive if standard equipment and supplies are not used. Communities may not be able to operate systems if technologies are not matching their capacities to operate and maintain them. And coverage may be sacrificed to quality if levels of service are excessive. Standards of design and construction are required to assure that resources are effectively used and the needs of communities met, as well as mechanisms to ensure that the standards are applied.

3.2.3.5 Inadequate Funding

For the Government to attain its goals in the water supply and sanitation sector, funding has to be increased and committed on a long term basis. Recurrent costs of maintenance may be expected to increase at a high rate due to escalating costs of materials and the increasing number of systems. Furthermore, as systems age, repairs become more frequent. As the Rural Water Supply Board is the only agency with the capacity to assist in maintaining rural water systems and its budget is limited, it helps maintain only systems it has constructed or approved. Systems constructed by other agencies and organisations have often failed in the past for lack of maintenance. If such systems are not designed to approve standards, the costs of maintenance are high. Further, funding is required to strengthen and maintain existing institutions and programmes to assure continued progress towards reaching targets and achievement of intended benefits. Funding must be obtained from various sources (e.g. Government, communities themselves, donor, private sector, etc).

3.2.4 Constraints on the Management of Toxic Chemicals

The greatest constraint the country faces in the management of chemicals is the lack of suitable disposal facilities. At the present time Swaziland relies on South Africa to dispose of toxic chemicals (though since becoming a signatory to the Basal Convention, South Africa no longer permits the export of toxic chemicals from Swaziland to South Africa).

A POPs survey highlighted the poor public awareness of the issues surrounding toxic chemicals their handling, storage and disposal. Greater emphasis is required to raise this awareness.

There is also a poor recognition about alternative chemicals that could be used that are less environmentally threatening. Greater emphasis is needed to raise such awareness.

With no national legislation governing toxic waste specifically (there are the Waste Regulations, but their target is towards domestic waste), management of toxic chemicals is left to the supplier and user and general international guidelines which are often not adhered to.

3.2.5 Constraints on Hazardous Waste

Due to the limited use of or production of hazardous wastes, government has not viewed it as a priority issue for sustainable development. However, the increase in the manufacturing sector has now required that something be done. An inventory of hazardous wastes is currently being conducted.

The international movement of hazardous waste that may be produced locally is prohibited by signatories of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. Swaziland has not signed this convention and its is very important that she does so.

3.2.6 Constraints on Solid Waste Management

The greatest constraint so far has been the limited numbers of suitably qualified personnel to coordinate and manage waste disposal and the number of facilities available.

Local government institutions have steadily improved their effectiveness in waste management and the two largest councils, Mbabane and Manzini, both have dedicated departments for solid waste management.

The high cost of constructing sanitary landfills that meet SEA approval, is another constraint for the limited number in the country.

3.3 Constraints on Strengthening the Role of Major Groups

Inequality in income generation and distribution has never been a deliberate Government policy but a result of limited productivity linkages between rural and urban development, industry and agriculture, large agricultural plantations and smallholder growers, and capital and labour. It has nevertheless been facilitated by the pricing policy and the distribution of financial markets that have not empowered the poor to generate income. It is therefore necessary to empower the poor with the means through a policy framework for them to increase production beyond subsistence requirements.

3.3.1 Constraints on Gender

3.3.1.1 *Gender and Development*

Swaziland is still trying to address the issue of gender inequality, but progress is relatively slow because the country is just beginning to address equality in development and decision-making.

3.3.1.2 *Access to land*

Land is the major means of production because, as an agricultural economy, Swaziland needs to produce its own food. However, it is difficult, almost impossible, for women to access this resource in their own right in the different tenures outlined above.

3.3.1.3 *Economy*

All Swaziland's economic policy and programme initiatives, none has any gender approach. It is assumed in the agricultural sector, that women will be the major stakeholders since they are the de facto farmers. However, if the policy is to be successful, there needs to be recognition that women must be consulted and a number of decisions will have to be made by them since many women are heads of households.

The informal sector policy, which would directly affect women as they are the majority in this sector, is not yet well defined. However a positive step in the urban areas is the recognition of

street-vending as a legitimate activity. The 1996-97 budget allocated close to a million emalangeni to construct shelters for vendors. For women, it is a beginning and an indication that government does realize street vending has a role to play in the economy.

3.3.1.4 Environment

SEAP holds great promise in accommodating women's issues. The process of drawing up this plan was consultative and participatory and women's groups are hopeful that SEAP will highlight the plight of women and their lack of involvement in environmental and natural resource decision-making.

3.3.1.5 Violence and Conflict

Various NGOs have been established, mostly by women, to address violence against women and children. They have begun to challenge gendered power relations and are calling for correction of the gender imbalances in society.

3.3.1.6 Social Structures

Women, especially in the urban areas, have begun to challenge degrading cultural practices through human rights organizations struggling for gender equality and against discrimination. These include Women and Law in Southern Africa (WLSA), Swaziland Action Group Against Abuse (SWAGAA), Human Rights Association of Swaziland (HUMARAS) and Council of Swaziland Churches (CSC).

Awareness must be created among Swazi women and men about the negative impacts of some cultural practices through education and show how their discontinuation can bring positive results.

3.3.2 Constraints on NGOs

The greatest constraint has been the coordination of programmes between NGOs and Government. Access to funding is a preoccupation for many NGOs to cover both projects costs as well as administration costs..

3.3.3 Constraints on Local Authorities

The major constraint in implementing Agenda 21 with local authorities are financial and legislative. If the local authorities has the financial resources, it would make more effort in upgrading the informal peri-urban areas so that all the residents had decent housing with water connected to each house and waste collection.

Local authorities have also faced problems in sourcing funding for improved solid waste management particularly establishing a site for the disposal of hazardous waste.

3.3.4 Constraints on Workers

Awareness by workers of their rights to occupational safety is still poor and therefore there is still need to improve awareness in this regard. Without legal support, workers can face a range of environmental hazards (waste and toxic contamination). The Environmental Management Bill will partially address such problems, but the Bill awaits enactment.

3.3.5 Constraints on Business

Lack of encouragement by government and her relevant agencies to promote cleaner production technologies and processes and responsible entrepreneurship has been the main constraint.

Lack of awareness among industry and business of the obligations contained in this chapter of Agenda 21 is probably the major reason why little has been done. The larger sugar based companies and multi-nationals have shown greater responsibility to their environment though proactive studies of cleaner production techniques and in supporting the upliftment and education of their workforce on environmental issues relating to their operations.

3.3.6 Constraints on Science and Technology

The greatest constraint Swaziland faces under this heading is the dissemination of information and results of scientific studies aimed at improving resource use.

There is limited feedback of research results into policy development and minimal involvement of scientists in debating issues.

3.3.7 Constraints on Farmers

Agricultural production is very sensitive to climate and climate variation. Estimates of climatic variation indicate that for maize a decrease in yield can be expected – somewhere between 30 – 60% from normal yields. This can be expected to have dramatic implications on the country's food security unless measures are taken to improve crop husbandry.

The overall outlook for agriculture is not favourable. The high population growth and competition for an ever decreasing availability of suitable land and security of tenure, can be expected to be the greatest constraint to agricultural production.

Improved crop varieties and research is urgently needed. Research in cash crops is limited as a result of financial constraints and what research is carried out does not easily make it to the farmer for implementation.

Land degradation brought about by over grazing of range lands is an ever increasing threat to both farmers – greater efforts are needed to encourage a more commercial approach among livestock farmers that would result in greater offtake and reduced pressure of grazing lands.

3.3.8 Constraints Financing

In common with many sustainable development initiatives, financing and human resources are viewed as the most significant constraint to implementing policies that effectively address environmental issues in the country.

Awareness of Agenda 21 commitments among the various line ministries is viewed as poor.

3.4 Constraints to Promoting Sustainable Human Settlements

The problem of inadequate financial resources and international support to implement sustainable development initiatives cannot be overemphasised.

3.4.1 Secure Land Tenure

The level to which people can access the land and housing market, as well as land use in the rural areas, is affected by the complicated issue of land tenure in Swaziland. There are basically three types of tenure: customary or traditional tenure (SNL), freehold title land and Crown (or Government) Land. As urban boundaries expand, it is often the case that SNL is incorporated and converted to Crown Land before being divided and properly serviced. Many of the informal settlements in the urban areas have developed on Crown Land, under temporary occupancy permits, which have prevented people from building permanent structures. The lack of affordable serviced land with secure tenure is the main cause of the shelter problem.

3.4.2 Skewed Infrastructure Development

Infrastructure development has mainly focused on the urban areas, through subventions from central government to local authorities. As a result, there is low investment in the rural areas and people move to the cities and town in search of better services.

Institutional problems with urban management and a lack of clear responsibilities or conflicting responsibilities have resulted in inadequate infrastructure and some environmental problems, including poor sanitation. The only two sanitary landfill sites in the country are located in Mbabane and Piggs Peak with no formalised disposal facilities available in the rural and urban areas. Facilities for the treatment of sewage are also operating beyond their

designed capacities partially as a result of increasing rates of urban growth, but also due to poor planning and maintenance.

The provision of potable water needs to be expanded and supplied to low income earners, particularly in the peri-urban and rural areas. It is this deficiency that results in health related impacts that place additional strain on already stretched health facilities.

The problems of rapid urbanisation are exacerbated by the poor management capabilities of the local authorities. Institutional strengthening and technical training are necessary to improve operations and maintenance of the urban services.

3.4.3 Impacts on Urbanisation

There is a continued rapid urbanisation rate in Swaziland, with growth rates in excess of 5% per year. This is due to a number of factors. Firstly, the natural population growth within the cities causes a need for expansion. Secondly, the push factor is that increasing hardships and costs of agricultural production and rural poverty are forcing the rural population to move to the cities and towns in search of work opportunities. Third, the pull of the cities in the better infrastructure and services i.e. potable water, electricity, health and educational facilities, and shops - all in close proximity and accessible as compared to the rural areas. The secondary settlements in the rural hinterlands have limited absorptive capacity for these job seekers due to the lack of decentralisation and investment in public facilities.

Policies and strategies need to be implemented which strengthen the capacity and facilities of secondary towns and result in a balance between urban and rural development within a regional development plan. Methods of improving the standard of subsistence life also need to be devised. e.g.: extending water and power supplies. Strengthening the capacity of rural land to accommodate increased numbers and produce efficiently is hampered by the communal land system; "the communal land system does after all impose a significant impairment to efficient and effective utilisation of the country's limited land resources" (Nkambule 1983).

3.4.4 Affordability of Housing

The building of urban houses under the UDP, even at a "low-cost", still prohibits large numbers of people from taking part in the Project because their affordability is still very low due to generally low per capita incomes, especially for the targeted low-income earners. For example, some of those who are classified as "middle-income earners" still could not afford to get the necessary finance from the local lending institutions in order to access the UDP built houses. The effectiveness of the UDP therefore necessitates a subsidy, which Government finds it unaffordable and unsustainable.

3.4.5 Coordination of Urban Services

A number of governmental agencies responsible for the provision and management of urban services, ranging from water supply to housing loans, need to be strengthened in terms of human resources to enable them to operate efficiently and be financially viable and sustainable. Many implementation agencies suffer from problems with organisational structure, financing and manpower development. To enable efficient housing and infrastructure delivery, these agencies must have sufficient capacity for implementation, operation and management.

Local government consists of the combination of traditional and modern structures of control, namely the tinkhundla and the City and Town Councils and Town Boards. The traditional authorities have been marginalized from land issues of development. For effective urban management and development these two systems have to be coordinated in their efforts if they are to grasp control of the rapidly urbanising human settlements.

3.5 Constraints to Changing Consumption Patterns

The implementation of the measures for changing unsustainable consumption patterns has met the following constraints:

3.5.1 Ensuring Security of Energy Supply

Swaziland's major concern is ensuring security of energy supply both in the short- and long-term. Short-term security issues are those related to the availability of energy carriers on a day-to-day basis and include quality of the supply, reliability of infrastructure, and the stability of energy imports.

Long-term security concerns include the stability of international agreements on energy import infrastructure and price as well as development of the country's own energy resources. Being landlocked, Swaziland's energy import is heavily dependent on relatively few supply alternatives and transportation routes. This is especially the case for petroleum products and electricity.

3.5.2 Affordability of Sustainable Energy Sources

Access to energy does not only concern the physical availability but also affordability. Affordability of alternative energy sources is a major concern for low-income households and needs to be adequately addressed. Currently, there is a high dependence on fuelwood, mainly because it is harvested freely as there is no policy for the harvesting of fuelwood on communally owned land. The cost of gas, paraffin or other alternative sources (hydro and solar) discourage an already poor rural population from using anything other than the free fuelwood.

The sustainability of the rural electrification initiative may be undermined if the capacity for the country to improve the economic circumstances of the rural poor remains an issue. Since sustainable development is multi-sectoral, it is necessary for Swaziland to secure funding and technical assistance for undertaking a study for a more holistic and coordinated approach to sustainable development.

Supply of other energy carriers in remote areas is in many cases difficult due to cost limitations and poor transportation infrastructure.

3.5.3 Inadequate Data to pursue Alternative Energy Sources

Swaziland's wind and solar regime is not well documented due to limited data availability. However, a long-term resource measurement programme has been established. Five sets of measuring equipment were installed at the National Meteorological Services (MES) department and in the Rural Development Area sites around the country in early 2001. The aim was to ascertain the wind and solar resource status.

3.6 Constraints on Protecting and Promoting Human Health Conditions

3.6.1 The Impacts of HIV/AIDS on the Economy

HIV/AIDS has emerged as a major health and development concern in Swaziland. As a result of the increasing mortality due to HIV/AIDS, life expectancy has already stagnated and is likely to continue through 2015. AIDS tends to kill prime-age adults, many of whom are skilled and at the peak of economic productivity.

3.6.2 Macro-economic Impact of HIV/AIDS

The macroeconomic impact of HIV/AIDS is likely to affect the savings/ investment relations at public sector level.

3.6.3 Poverty

About 60% of the population lives below the poverty datum line. Following the economic down turn over the past decade and the impact of the HIV/AIDS pandemic, the poverty situation is likely to worsen. The MOHSW is charged with the provision of care to all, as well as to provide for social support services.

3.6.4 Budgetary Allocation

The budget of the Ministry of Health and Social Welfare has decreased by 2% in the past two (2) years to an all time low of 7.6% of GNP. The fall of the Rand/Lilangeni against the dollar has led to unsustainable price increases for essential goods such as medicines and pharmaceuticals, and equipment.

3.6.5 Attrition of the Labour Force

Due to uncontrolled recruitment of highly trained professionals by the developed countries, the MOHSW has lost some of its best-trained workforce. This is worsened by the conditions of service that are not conducive to public service employment.

3.6.6 Macroeconomic Impact

The impact of HIV/AIDS on macroeconomic fundamentals is much more complex than with the foregoing. From the macroeconomic perspective, HIV/AIDS is likely to affect the savings/investment relations. Expenditures for mitigating the impact of HIV/AIDS at both the household and public sector levels are likely to reduce the amount of capital (both public and private) available for more productive investment; thus in the absence of external investment flows, the higher the proportion of care financed from savings, larger the reduction in growth resulting from the epidemic.

3.7 Constraints on Promoting Public Awareness, Education and Training

Although gains have been made in the area of environmental education and public participation, there are constraints which need to be faced and addressed in order to face the new challenges before us. Following are some of these constraints:

- In staffing the SEA, the appointment of an information officer was considerably delayed. Further staffing problems have resulted in there not being a full time information officer to focus on building awareness.
- Environmental Education and Public Participation is an area which is currently not receiving a lion's share of attention and resources in comparison to other environmental areas.
- Possibly due to the overwhelming need to provide education for all the country's children, with limited resources, and to other challenges in the education system, the integration of environment into the formal education system is not figuring high in the list of the Ministry's priorities.
- The NEEP is not playing its full role in systematically planning and implementing a national environmental education programme for the country.
- The integration of curriculum into the formal education system has not been carried out holistically.
- Although there have been discussions, the integration of environment and sustainable development concepts has not been adequately addressed at tertiary level.
- The vitality of many school conservation clubs has waned.

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- The cost of newspaper space and radio and television time is very high (or the budget for using the media is too low). This discourages the use of public media for environmental education and communication

3.8 Constraints on Integrating Environment and Development in Decision Making

The country's greatest constraint for integrating environmental issues into planning and implementation has been a general lack of professional capacity within the institutions responsible for making such decisions. Financial resources to ensure such integration and capacity building have been limited.

3.9 Constraints on Conservation and Management of Resources for Development

3.9.1 Policies and Legislation

The country has in the past spelled out its development objectives through various frameworks and set strategies to achieve these. As the significance of environmental issues began to emerge, there has been a move to model such policies and actions to embrace this domain more comprehensively. Notably, the government's environment legislation has been strengthened to require both the public and private sectors to ensure that all their future policies and strategies take environmental considerations into account.

This is considered a strength to supporting the requirements of the Convention as inherent climate change considerations can be covered to some degree. Supporting policy interventions and strategies are either already in place or in the process of being promulgated in other areas including Energy, Forestry, Water resources, Transport, Agriculture and Land.

3.9.2 Financial and Technological Needs and Constraints

Through undertaking the process of compiling this National Communication, the country has identified several areas with constraints that need to be attended to. Firstly institutional infrastructures for facilitating a continuous process of undertaking such assessments and related activities was identified as weak. There therefore is need for the structures to be strengthened for more efficient coordination and execution of processes and activities for purposes of future National Communications.

Capacity building is required in the human resource domain to ensure availability of a pool of experts that the process can draw from. Similarly, technology transfer is increasingly more desirable if more efficient and hence less environmentally harmful systems and technologies are to be introduced. Swaziland also needs to develop a comprehensive local database and country-specific information systems to support studies that are being made.

As a developing country with many priority issues to consider, Swaziland's financial resources are not adequate for use in making a meaningful intervention in the implementation of the Convention that she has signed. The country can certainly join the international effort to protect the global climate system with the support and assistance from other partners.

3.10 Constraints on Integrated Approach to Planning and Management of Land Resources

The creation of the Land Use Planning section within MOAC and incidental community participation in the land use planning process in Swaziland, effective land use planning has failed to make a significant impact in the stewardship of land resources in the country. The failure of the process to make significant improvement in the management of land in the country may be attributed to the following:

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- The land use planning has not adequately identified all stakeholders and tended to concentrate on a broad community approach without focusing on different group and individual interests within a community.
 - There has not been an adequate forum for dealing with communal grazing land management and no attractive alternatives to extensive livestock production in communal areas have been identified. No incentives were put in place to attract households to other alternative forms of land use.
 - There has been very poor institutional coordination between the institutions responsible for land use planning.
 - Competing land use uses have emerged because of the absence of a national land use policy to guide land development.
 - Integrated Land Use Planning has been absent and sectoral self interests tended to compound the problem; e.g. there is no forum where agricultural and urban development interests and objectives are discussed.

3.11 Constraints on Forestry Management

There is currently a very small government forest service in terms of number of staff and operational budget and facilities. There is shortage of adequately trained human resources in the government forestry service.

Government funds are inadequate to support the implementation of the national forest policy and national forestry programme and enforcement of forest legislation. This is mainly due to competing national land uses and development priorities.

3.12 Constraints on Agriculture and Rural Development

Constraints include inadequate access to development finance for investment in agricultural production. There is inadequate access to markets, particularly for small scale producers who grow low value crops.

There is currently no agricultural policy that would harmonise marketing, supply of inputs and extension services.

A further constraint is the lack of knowledge and self-confidence of the people in rural communities due to limited experience and lack of education. People who have never been given a chance often have difficulties responding when all too rare opportunities arise.

Another constraint faced by the country is to move away from the notion of poverty alleviation to wealth creation. Poverty alleviation focuses on the negative aspects of life and the process is often paternalistic – “we will alleviate your poverty”. Wealth creation on the other hand leads to a focus on business and ownership, a proven combination in today’s world.

It is important that people understand that agriculture is a business and should be treated as such rather than treating it as a way of life.

The country’s government also has to accept that lack of knowledge and self-confidence is a very serious constraint to development and should do something about it by coming up with a national training plan and support infrastructure.

4 MAIN CHALLENGES AHEAD

As with many developing countries, the challenges that Swaziland face in pursuit of sustainable development are often compounded by the need to resolve issues and needs immediately leaving little time to properly plan effectively.

Despite the development of the SEAP and NDS in the late 1990s as core policy initiatives for sustainable development, produced following wide consultation and discussion, the challenges raised in those documents remain to a large extent unfulfilled with the critical issues or concerns identified still poorly addressed.

4.1 Social and Economic Dimensions

Poverty remains the country's greatest challenge as it is viewed to be the source of many of the country's development challenges. Creating an enabling-environment for economic growth and structural transformation remains an overriding challenge for the country. Ensuring effective growth and performance of the private sector, particularly in the export sector, is seen as key to improving the balance of payments position, and therefore a reduction in foreign ODA dependency.

The availability of financial and human resources to address these challenges is often lacking or misdirected.

4.2 Conservation and Management of Resources for Development

Swaziland has been endowed with a great wealth of natural resources – particularly its biological resources. Ever increasing poverty and population growth is resulting in the rapid degradation of these resources in a vicious cycle of declining availability of these hitherto free resources.

Land degradation, fragmentation of habitats, alien plant invasions and rapid degradation of the biological resources are the key challenges to be addressed by the country. The various policy and legislative initiatives launched by government since Rio have so far remained mostly on paper, are not cross-sectoral and most importantly are not matched by adequate funding and expertise to implement the measures recommended by stakeholders.

4.3 Strengthening the Role of Major Groups

The major groups operating in Swaziland face huge challenges in executing their mandates. The HIV/AIDS crisis is testing the major groups abilities to provide support. The provision of basic humanitarian support to communities devastated by the HIV/AIDS, drought and food insecurity, remains their greatest challenge. International access to financial support for their various programmes is hampered by regional and global humanitarian demands placed on such sources with donor priorities being driven by both regionally and globally agendas.

5 THE NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT

Swaziland's strategy for sustainable development are articulated in the NDS and SEAP. These two top-level strategies provide the framework for sustainable development in Swaziland and have received support from all sectors.

Swaziland's achievements since the Rio Earth Summit are a justifiable source of pride in many areas, but a cause for complacency in none. Huge strides have been made in areas such as education and policy development, but little has been achieved in alleviating poverty and managing the consequences of increasing levels of poverty, and with:

- one of the highest national antenatal HIV rates on earth
- a high population growth rate of 2.7%
- declining ODA
- increasing levels of under employment
- serious or very serious soil erosion and other environmental degradation
- heavily skewed income distribution with much of the population living in absolute poverty
- indicators such as total fertility rates and under-five mortality being more in keeping with low human development nations than medium human development nations, and
- the recent slowing of growth both in formal employment and GDP

the challenges ahead appear to be even greater than those already overcome.

ESRA, the NDS and the PSMP have arisen in response to the seriousness of these challenges. Whether or not they will be adequate to face those challenges remains to be seen, but the integrity of purpose and the political commitment of the government is clear. The NDS in particular at least partially addresses all the strategies for poverty elimination recommended by the UN:

- Empower the poor to develop themselves
- Empower gender equality
- Concentrate upon pro-poor growth strategies in economic growth
- Harness globalisation for the benefit of the poor
- Governments to enable pro-poor policies, markets and political enfranchisement
- Those in the most desperate straits need special international support.

Despite a shortage, there are Swazis with the capacities and depth of insight required to address the most complex of these problems, but the management systems are not in place to fully utilise their potentials. The process approach towards sustainable livelihoods, (involving increased participation by the general populace in the formal market sector) remains the best hope, but its implementation is complex. However, some problems with major long-term crippling effects - in both human and national development terms - could be remedied very quickly and simply: for example, through the current programme of iodizing salt, the full potentials of many Swazis can be much more readily realised.

The NDS provides a vision with realistic objectives, but the achievement of those objectives entails a different management approach from those built up from historical inertia. Nothing sustainable will happen without strong government vision and leadership towards making Swaziland competitive in the international marketplace in general, and towards bottom-up empowerment in particular.

5.1 Swaziland's Strategic Approach

Swaziland's strategic approach to sustainable development is enshrined in the SEAP and the NDS. The current mission statement of the Government of Swaziland is *"to provide a climate and infrastructure that will progressively maximise the quality and security of life of the people of Swaziland and make the best use of the country's natural and human resources"*.

Policy development within the various ministries is on-going and generally participative and should, therefore, be representative of Swaziland's citizens aspirations and hopes.

With a clear and widely acceptable vision for sustainable development, government needs to ensure that the broad strategies of the NDS are effectively implemented and monitored.

ESRA sought to kick-start the economy by creating "an enabling environment in which the private sector will be the driving force in increasing both economic growth and individual living standards". The successes of this programme is mixed, but there have been some.

5.2 Strategy Development

The socio-economic objectives of Government (which are stated as economic growth, self-reliance, social justice and stability), together with the policies and strategies for achieving them, were laid down in successive five-year national development plans and in subsequent three-year rolling development plans.

Spurred on by Agenda 21 commitments, the formulation of the SEAP was embarked upon as part of this new planning system.

The process of compiling the NDS was participatory in that it started by the collection of views from the general public, which was accomplished through the appointment of the Economic Review Commission (ERC). The report of the ERC, published in 1995, solicited a national consensus and came up with recommendations which called for the formulation of strategies for satisfying the aspirations of the nation.

Following completion of the Economic Review Commission exercise which was the first phase of the NDS process, eight sector committees were charged with the responsibility of giving in-depth analysis to specific areas. The idea was to provide background material to guide strategic thinking in the formulation of the vision and the long-term national development strategy for the country.

Following the nomination of stakeholder representatives the consultation process was further strengthened by the appointments made by His Majesty to the stakeholders group. The representatives were entrusted with the responsibility of articulating a long-term vision, identifying the key areas of development against which national resources will be allocated and the formulation of macro and sectoral strategies for the attainment of the vision for the country.

Following extensive consultations as well as detailed analytical reviews of Swaziland's social and economic performances since independence, challenges and opportunities were identified. Consequently the stakeholder representative groups settled on the vision that "By the Year 2022, the Kingdom of Swaziland will be in the top 10% of the medium human development group of countries founded on sustainable economic development, social justice and political stability".

Underlying the vision is the focus on the quality of life in the country. The critical dimensions of the quality of life are poverty eradication, employment creation, gender equity, social integration and environmental protection. These dimensions are, in turn, crucially linked to education, health and other aspects of human resource development. These indices can be used to monitor movement towards the vision on a regular basis. Because other countries are also trying to improve their conditions, this vision is actually a moving target. What Swaziland is essentially saying is that it wants to move up the ladder for enhancing human capacities.

To achieve the vision described above, key macro strategic areas were identified. They are macro in the sense that they are broad and encompass a number of more focussed strategic considerations.

5.2.1 Sound Economic Management

In the context of the free-enterprise nature of the Swazi economy, the central theme of sound economic management is the creation of an attractive macroeconomic environment to increase investor confidence. This will, in turn, enable the achievement of a number of desirable social objectives such as job creation, poverty reduction, economic empowerment of locals (including women) and environmental management. It will also help sharpen the effectiveness of the other key macro strategies.

Important elements of this strategy are sustainable national budget; full transparency and accountability in the use of public funds; realistic monetary policy taking into account the small size of the economy vis-a-vis the regional economy; creation of adequate physical infrastructure; protection and regeneration of the physical environment; effective and optimum utilization of the natural resource base; maximisation of productive employment opportunities; and bringing regional economic relations to work for the benefit of the Swazi economy.

5.2.2 Economic Empowerment

Economic empowerment involves raising the capability of various national groupings to widen their choice horizons.

Strategic considerations in this area include the following: active promotion of local entrepreneurs to start own businesses or grow in their existing businesses or enter into mainstream business operations through share purchases on a willing-buyer and willing-seller basis; orderly promotion of informal sector activities; rural development; assisting disadvantaged groups; and mainstreaming of gender relations in project formulation. Where there are existing structures for economic empowerment they should be streamlined and made to work more efficiently and effectively. Where necessary, existing structures should be introduced. In all cases, there should be sufficient consultation with all stakeholders so that the outcome can receive maximum support.

5.2.3 Human Resource Development

The importance of human resource development as a key macro strategy stems from the fact that human resources are one of the primary resources Swaziland has. This resource can only contribute meaningfully to sustainable economic and political development if its capabilities and qualities are enhanced.

Important elements in this strategy are appropriate education and training (including a reorientation away from the presently academic orientation to technical and vocational orientation); adequate incentives extended to businesses and households to encourage the full development of human capital; appropriate youth programmes; special attention to members of society with disabilities; and all other areas impacting on the quality of human capital (health, water, sanitation, shelter, etc).

5.2.4 Agricultural Development

Swaziland has a comparative advantage in agricultural products because of its good soils, good climatic conditions, potential for more quality agricultural research and competitive wage rates. A large portion of the population will be still deriving its livelihood from agriculture over the next twenty-five years. It, therefore, makes good economic sense to select agricultural development as one of the major areas of strategic thrust. The agricultural sector has relatively strong backward linkages with other sectors in the domestic economy. Hence by stimulating it, it is hoped to stimulate other sectors of the domestic economy.

This strategic area essentially involves 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 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.

5.2.5 Industrialisation

This strategic area entails diversification away from agriculture into industry and services, as well as from the narrow range of non-agricultural activities into a broader spectrum. Such diversification will reduce overall economic risk, raise the degree of resilience in the economy and raise the capability of the economy to sustain its operations. Hence it is important for Swaziland to identify feasible areas for industrial development.

Important elements include the maximization of value-added on agricultural and mining products; promoting financial services (including offshore operations); fostering harmonious industrial relations; promoting sectors with strong backward and forward linkages.

5.2.6 Research for Development

The importance of this strategy stems from the fact that knowledge is one of the important ingredients for decision-making. There must be a culture of generating relevant information before any decision is made in both the public and private sectors. Institutions dedicated to research must receive adequate funding which could be encouraged by appropriate fiscal incentives. The research should span all areas - including natural science, production technology, social science, humanities, education, population and health.

Where technology transfers from abroad are made, the possibility of adapting that technology to suit local conditions must be investigated. Conversely, if the required research capability threshold has been reached, locally based research results can find applications abroad.

5.2.7 Environmental Management

Swaziland recognises that environmental management is a necessary condition for sustainable development. This entails the maintenance of an ecological balance must be maintained; and accommodating environmental considerations in their policies, strategies and programmes of both the public and private sectors; accommodating environmental compliance procedures; and ensuring that sector strategies for achieving the country's vision are environmentally friendly. The Government is committed to the concept of sustainable development and to the implementation of Agenda 21.

Environmental management will help to forge a development path that provides prosperity for the country's present and future generations.

5.3 The Impact of the Strategy

The implementation of the NDS has produced numerous tangible results since its launch in 1997. Using the ESRA programme the implementation and monitoring of programmes and projects has been implemented.

The process of using the ESRA time-bound targets for Government Ministries has proved effective by increasing awareness of the priorities and providing a management tool which introduced the discipline of working to deadlines and being accountable for shortfalls. In order to accelerate the implementation of public sector reform initiatives and other programmes, Government has, over the past five years, employed the process of target setting for Ministries. This process was captured in a programme called the Economic and Social Reform Agenda (ESRA) which was conducted in two phases, ending in December 2001. The final report on ESRA II has recently been published. ESRA, as a discipline, required Ministries to agree to a series of time-bound priority action targets. Ministries reported progress on a monthly basis through standardised submissions to the Public Policy

Coordination Unit (PPCU) in the Office of the Prime Minister. Following the PPCU's review of progress, reports were issued every three or six months and subsequently published.

In May 2002, following the end of the ESRA three year programme (1999-2001), a revised implementation programme was launched - the Millennium Action Programme (MAP). The Millennium Action Programme (MAP) continues the ESRA process but with a number of significant changes. The programme is shorter and more concise, with fewer targets. In common with ESRA, however, MAP selects targets that put into effect the principal objectives of the National Development Strategy (NDS). These include, among others, poverty alleviation, and an emphasis on rural development, employment creation, HIV/AIDS, efficiency and cost-effectiveness in the public service, and improved conditions for essential services. MAP is to be revised annually. Each Ministry again submits a monthly progress report in a standardised format. Cabinet will review all submissions on a monthly basis and a public report will be issued twice during the 12 months period. A final report is to be issued by 15 January following the year end.

The composition of MAP involved a collaboration between the respective Ministry and the PPCU, followed by a series of workshops in which the drafts were discussed and finalised. Following finalisation of the drafts, monthly progress reports are now being received at the PPCU by the ninth day of each month and subsequently discussed in Cabinet.

5.4 The Relationship of SEAP to the National Development Strategy

The SEAP development process began shortly after the MEPD, the Ministry responsible for formulating, coordinating, implementing and monitoring development planning, had initiated a process to develop the NDS for Swaziland to guide its development in the long term.

The NDS was completed in 1998 and launched in 1999. The SEAP was completed in 1997 and work on quite a few of its recommendations began even before the document was completed. Thus there has been considerable progress towards the SEAP implementation. Since the NDS and the SEAP processes were taking place simultaneously, special efforts were made to link the two through consultation and participation in meetings. The result is that the two documents are complementary and in agreement.

The NDS does address the environment, only identifying environmental management as one of the eight key macro-policy areas, and emphasizing the importance of equitable use of resources. In addition, the document makes it clear that environment cuts across all sectors. The NDS included major environmental issues identified in the SEAP, such as soil erosion, deforestation, waste disposal and industrial and urban pollution. It stresses the importance of a healthy environment, especially for the rural populations. The NDS also points out the Government's commitment to environmental management as demonstrated by the creation of the Swaziland Environment Authority in 1992, the Environmental Impact Assessment regulation in 1996 and the SEAP in 1997, as well as being signatory to various international environmental agreements, conventions and protocols.

Even though it is clear that the recommendations of the SEAP were taken into consideration in the preparation of the NDS, the integration of an environmental dimension throughout all sectors is not strong enough and quite a lot of work still needs to be done, such as addressing potential environmental implications of economic policies.

6 ASSESSMENT OF SWAZILAND'S APPROACH TO SUSTAINABLE DEVELOPMENT

Swaziland committed itself to implementing Agenda 21 since its adoption 10 years ago. Some of the efforts in this direction include:

- the preparation of SEAP and the National Development Strategy;
- the preparation of the National Environmental Policy (2000);
- the review of Institutional and Legal Framework for Environmental Management (1996);
- the formulation of policies and strategies aimed at poverty reduction (1996-2001);
- the signing and ratification of several global and regional conventions of relevance to the environment and sustainable development;
- the adoption of a National Development Strategy (1999); and
- the implementation of the Economic and Social Reform Agenda (ESRA).

The SEAP is also an important document for sustainable development. However, the fact that it outlines more than 10 priority activities and programmes might make it difficult for planners and policy-makers to set priorities for implementation, even though some activities and programmes are identified as more important than others. Maybe due to the fact that it was developed almost concurrently with the NDS, the SEAP does not clearly articulate the impacts of economic policies of the NDS or earlier planning documents.

In view of the above-mentioned short-comings, the following future follow-up plans are necessary:

- the NDS should be subjected to a strategic environmental assessment in order to ensure that environmental and economic issues are well integrated within it; and
- an Environmental Economics Programme was initiated through financial and technical assistance from DFID/UK. Its aim was to improve dialogue and understanding of the environmental economic issues. However, the effectiveness and continuation of this programme, especially now that the external assistance has ended, has never been formally undertaken. There may be need to for its evaluation to ensure is continued effectiveness for development.

6.1 Integration of Policies

Policy and legislation formulation has been a keystone in Swaziland's sustainable development process. Almost all Ministries have undertaken the preparation of policies and draft legislation to guide the implementation of their mandate. The majority of these policies have been developed through a consultative process, on occasion spanning several years.

The integration of these policies into the every day operations of the affected sector has been mixed and a review of the effectiveness of these policies is required to ensure that the overlaps and inactivity are addressed.

6.2 Public-private Partnerships

Consultations with sections of civil society highlighted the following constraints to sustainable development in Swaziland:

- Poverty
- HIV/AIDS and other health issues
- Governance

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- Marginalisation of some sections of civil society including women, disabled and elderly in the decision-making processes

There are now an increasing number of effective local NGOs and church groups who are playing an increasingly significant role in social welfare support for vulnerable groups, particularly in rural areas. Voluntary agencies (NGOs and CBOs) are now developing proactive relationships with government and looking for other sources of funding. All parties are currently finalising an NGO Policy setting out ways of working together to deliver support to rural communities.

It is a common complaint that poor people are marginalised from the decision-making processes and do not have a say in matters affecting them at community level. While NGOs can only partly solve this problem, they do have an important role to play.

Business and industry involvement in sustainable development has been mainly through the implementation of commercial activities that have resulted in the generation of fiscal benefits to government through manufacture and export of products. Social responsibilities among the larger businesses has been strong with many of these businesses providing a range of employee social benefits. In the sugar and timber industry, public and private partnerships have increased with an ever expanding emphasis on encouraging Swazi farmers into the industry and the provision of technical services to assist these emerging commercial farmers.

7 A WAY FORWARD

Agenda 21 and the Rio resolutions established principles, strategies and action plans for sustainable development which have not yet been successfully accomplished. A number of constraints have been faced in the implementation of these commitments, most of which need international cooperation and strengthening the cooperation between rich and poor countries so as to create an enabling environment for the implementation of the commitments, especially by the poor countries.

The priority of Swaziland is to re-focus on the implementation of the commitments of the Rio Summit and in particular, the advancement of the declarations, targets and commitments that have been set at the different specialised fora since Rio, e.g. the Millennium Declaration, the Monterrey Declaration on Financing for Development, WTO negotiations.

In order to complement its efforts for sustainable development, Swaziland calls for the following:

7.1 At National and Regional Levels

- 1) All government line ministries, policies-makers, NGOs, civil society need to work in a more coordinated and supportive fashion for the common purpose of sustainable development and delivery of effective support.
- 2) A strengthened civil society to implement and coordinate programmes of action in the environmental and socio-economic sectors.
- 3) A strengthened fiscal position through good governance, transparency and accountability. Fiscal weakness has resulted in the non-delivery of critical support. This weakening fiscal situation is predicted to deteriorate sharply in the mid-term due to decline in South African Customs Union receipts but it is hoped that increased economic and regional trade that should emerge through membership of COMESA and the various bilateral trade agreements should balance out the fiscal deficits in the longer term.
- 4) Closer integration with regional states on matters of common interest and concern.
- 5) Improvements in the transfer of technologies and information between regional states.
- 6) Greater regional cooperation on transboundary issues (air, water and tourism).

7.2 At Global Level

- 1) Review of International Financing Structure to accommodate the special needs of poor countries. The role of international financing mechanisms should be strengthened, a monitoring mechanism put in place and an allowance made for its review over time to allow for changing circumstances.
- 2) Genuine commitment to the attainment of sustainable management of natural resources and environmental protection. The Convention on Biological Diversity puts emphasis on the special circumstances of natural resources-rich countries which are often poor. Richer countries should reaffirm their commitment to the fair and equitable sharing of the benefits derived from the use of biological resources, some of which are obtained from the poorer countries.
- 3) Technology transfer and improved access to science and technology is not fair for the developing countries. As provided for in Agenda 21, rich countries should provide more support for the equitable sharing of biotechnology, encourage the transfer of environmentally sound technologies to poor countries.
- 4) The advancement of initiatives for strengthening research and technology transfer should be done through improved networking and more genuine attempts to develop institutions for research and technology transfer, especially between rich and poor countries. National

and regional institutions involved in sustainable development initiatives should be strengthened.

- 5) To further enhance the effectiveness of the Global Environment Facility (GEF), measures must be adopted to make its procedures more responsive to the special needs and circumstances of some developing countries.
- 6) The international community should maintain a sustained political commitment at all levels for HIV/Aids prevention and control. There is need for the support of the national responses to the HIV/Aids pandemic by strengthening the ability of developing countries to deal with the disease. Safe and affordable health facilities should be made available to developing countries, including Swaziland, so as to help them realise their long-term development goals. Support for national responses to the HIV/AIDS pandemic should be given international priority.
- 7) The classification of Swaziland as a middle-income country means that Swaziland no longer qualifies for concessionary rates from international lending institutions such as the World Bank and African Development Bank. Our ability to raise finance for social sector projects is limited as it may not be prudent to borrow money at commercial interest rates for social sector projects. The international community should recognize that per capita income is flawed as a criterion for concessionary finance. Countries such as Swaziland, which have huge social welfare problems, need concessionary finance to counteract their development problems.
- 8) The vulnerability of small, open economies such as that for Swaziland, to global shocks should be given attention. Factors outside Swaziland's control such as the sharp depreciation of the Rand and deepening recession have had negative repercussion. The depreciation of the Rand has led to inflationary pressures and world wide recession has led to a closure of the number of factories in the country.
- 9) The Government recognizes that globalisation has added a new dimension to the pursuit of sustainable development. While it offers new opportunities for sustainable development, the benefits and costs of globalisation are very unevenly distributed. Hence, the continuing relevance of the principle of common but differentiated responsibility. It is imperative that Swaziland commits itself to making globalisation equitable and inclusive. To this end, the country needs to take concrete measures to create an enabling environment, promote good governance at all levels, including democratic values and the rule of law, and encourage corporate accountability and enhance international cooperation.
- 10) Sustainability needs the active participation of women and men on equal terms, and further measures are still required to secure for women the right to equal access and provision of their basic needs and to sustainable livelihoods.
- 11) The country recognizes the need for and benefits of ratifying and fully implementing environmental and sustainable development Conventions and their Protocols.